# Master Course List for 2016-17

## Elementary School K-5

<table>
<thead>
<tr>
<th>Language Arts</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Arts K, 1, 2, 3, 4, and 5</td>
<td>Math K, 1, 2, 3, 4, and 5</td>
</tr>
<tr>
<td>Gifted and Talented Literature Study 2, 3, 4, and 5</td>
<td>Essential Math 3, 4, and 5</td>
</tr>
<tr>
<td>Gifted and Talented Language Arts 3, 4, and 5</td>
<td>Gifted and Talented Math 3, 4, and 5</td>
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<table>
<thead>
<tr>
<th>Science</th>
<th>Social Studies</th>
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<tbody>
<tr>
<td>Science K, 1, 2, 3, 4, and 5</td>
<td>Social Studies K, 1, 2, 3, 4, and 5</td>
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<tr>
<td>Gifted and Talented Science 3, 4, and 5</td>
<td>Pennsylvania State History 4</td>
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<table>
<thead>
<tr>
<th>Physical Education</th>
<th>Art</th>
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</thead>
<tbody>
<tr>
<td>Physical Education K, 1, 2, 3, 4, and 5</td>
<td>Art K, 1, 2, 3, 4, and 5</td>
</tr>
</tbody>
</table>

**Technology**

- Educational Technology and Online Learning K, 1, 2, 3, 4, and 5

**Elective Courses**

- Elementary Chinese I
- Elementary Chinese II
- Elementary Spanish I
- Elementary Spanish II
- Experiencing Music I
- Experiencing Music II
- Experiencing Music III
- Elementary Sign Language
- Home Life
- WebQuest
- Discovering Music I
- Discovering Music II
- Discovering Music III

**Supplemental Instructional Support Programs**

- Skills Tutor Language Arts
- Skills Tutor Math
- Skills for Success
- Raz-Kids
- Reading Eggs
- Reading Eggspress

*Note: All courses marked in blue are STEM courses*

## Middle School 6-8

<table>
<thead>
<tr>
<th>Language Arts</th>
<th>Math</th>
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<tr>
<td>Language Arts 6, 7, and 8</td>
<td>Math 6, and 7</td>
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<tr>
<td>Gifted and Talented Language Arts 6, 7, and 8</td>
<td>Algebra Readiness (Pre-Algebra)</td>
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<tr>
<td>Gifted and Talented Literature Study 6, 7, and 8</td>
<td>Essential Math 6 and 7</td>
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<tr>
<td>Gifted and Talented Literature Study 6, 7, and 8</td>
<td>Essential Algebra Readiness</td>
</tr>
<tr>
<td>Gifted and Talented Math 6, 7, and 8</td>
<td>Gifted and Talented Math 6, 7, and 8</td>
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<td>Social Studies 6, 7, and 8</td>
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<tr>
<td>Gifted and Talented Science 6, 7, and 8</td>
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<tr>
<th>Health and Physical Education</th>
<th>Art</th>
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<tbody>
<tr>
<td>Health and Physical Education 6, 7, and 8</td>
<td>Art 6, 7, and 8</td>
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**Technology**

- Educational Technology and Online Learning 6, 7, and 8

*Note: All courses marked in blue are STEM courses*
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<thead>
<tr>
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<tbody>
<tr>
<td><strong>Elective Courses</strong></td>
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<td>Middle Chinese I</td>
<td>Middle Sign Language</td>
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<tr>
<td>Middle Chinese II</td>
<td>Home Life</td>
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<td>Middle Spanish I</td>
<td>WebQuest</td>
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<td>Middle Spanish II</td>
<td>Digital Arts I</td>
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<tr>
<td>Exploring Music I</td>
<td>Introduction to Entrepreneurship I</td>
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<tr>
<td>Exploring Music II</td>
<td>Business Keyboarding</td>
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<tr>
<td>Exploring Music III</td>
<td>Career Planning</td>
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<tr>
<td><strong>Supplemental Instructional Support Programs</strong></td>
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<tr>
<td>Skills Tutor Language Arts</td>
<td>SuccessMaker Reading</td>
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<tr>
<td>Skills Tutor Math</td>
<td>SuccessMaker Math</td>
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<tr>
<td>Skills for Success</td>
<td>WritetoLearn</td>
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<th><strong>High School 9-12</strong></th>
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<tbody>
<tr>
<td><strong>Language Arts</strong></td>
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<tr>
<td>Foundations English 9, 10, 11, and 12</td>
<td>Journalism</td>
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<tr>
<td>English 9, 10, 11, and 12</td>
<td>Speech and Debate</td>
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<tr>
<td>Honors English 9, 10, 11, and 12</td>
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<tr>
<td><strong>Math</strong></td>
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<tr>
<td>Foundations Algebra 1</td>
<td>Pre-Calculus</td>
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<td>Foundations Algebra 2</td>
<td>Calculus</td>
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<td>Foundations Geometry</td>
<td>Statistics</td>
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<td>Algebra 1 A (Part 1 &amp; 2)</td>
<td>Explorations in Math</td>
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<td>Algebra 1 B (Part 1 &amp; 2)</td>
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<td>Algebra 2 A (Part 1 &amp; 2)</td>
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<tr>
<td>Algebra 2 B (Part 1 &amp; 2)</td>
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<tr>
<td>Advanced Algebra with Financial Applications</td>
<td>Honors Algebra 2</td>
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<tr>
<td>Geometry</td>
<td>Honors Pre-Calculus</td>
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<tr>
<td><strong>Science</strong></td>
<td><strong>Social Studies</strong></td>
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<tr>
<td>Foundations Biology</td>
<td>Foundations U.S. History</td>
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<tr>
<td>Foundations Physical Science</td>
<td>Foundations American Government</td>
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<tr>
<td>Foundations Earth Science</td>
<td>Foundations World History</td>
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<tr>
<td>Biology</td>
<td>U.S. History</td>
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<tr>
<td>Chemistry</td>
<td>American Government</td>
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<tr>
<td>Physical Science</td>
<td>World History</td>
</tr>
<tr>
<td>Earth Science</td>
<td>Geography (World Geography)</td>
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<tr>
<td>Earth Space Science</td>
<td>Geography and Society</td>
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<tr>
<td>Marine Science</td>
<td>Economics</td>
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<td>Environmental Science</td>
<td>Personal Finance</td>
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<td>Physics</td>
<td>Psychology</td>
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<td>Honors Biology</td>
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<td>Honors Chemistry</td>
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<tr>
<td>Honors Earth Space Science</td>
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<tr>
<td>Honors Marine Science</td>
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# High School 9-12

## Advanced Placement

<table>
<thead>
<tr>
<th>AP United States History</th>
<th>AP Human Geography</th>
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<tbody>
<tr>
<td>AP Art History</td>
<td>AP Macroeconomics</td>
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<tr>
<td>AP Biology</td>
<td>AP Microeconomics</td>
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<tr>
<td>AP Calculus AB</td>
<td>AP Psychology</td>
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<tr>
<td>AP Calculus BC</td>
<td>AP Spanish Language</td>
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<tr>
<td>AP Computer Science</td>
<td>AP Statistics</td>
</tr>
<tr>
<td>AP English Language and Composition</td>
<td>AP U.S. Government</td>
</tr>
<tr>
<td>AP English Literature and Composition</td>
<td>AP Environmental Science</td>
</tr>
</tbody>
</table>

## Electives

### Technology
- 3D Art I - Modeling
- Business Keyboarding
- Digital Arts I
- Emergent Computer Technology
- Engineering Design I
- Game Design
- Intro to Computers & Information Technology: IC3
- Java Programming I & II
- Learning Microsoft Office 2010
- Web Design I

### Humanities
- Art History
- Digital Photography
- Living Music I and II
- Chinese I, II, and III
- French I, II, III, and IV
- German I, II, and III
- Japanese I and II
- Latin I, II and III
- Sign Language I A and IIA
- Spanish I, II, III, and IV

### Health and Physical Education
- Health, Fitness, and Nutrition
- Personal Fitness
- Physical Education

### Other Courses
- Introduction to Entrepreneurship I & II
- Critical Thinking and Study Skills
- Life Management Skills
- College Prep with ACT
- College Prep with SAT
- Drivers Education

### Career Technical Education (CTE)
- Accounting I
- Accounting II
- Administrative Duties and Office Management
- Anatomy and Physiology
- Business Communication
- Business Information Systems
- Business Law
- Business Math
- Career Exploration
- Criminal Investigation
- Developmental Writing
- Health, Safety, and Nutrition
- Human Resource Management
- Introduction to Business
- Introduction to Criminal Justice
- Introduction to Early Childhood Education
- Introduction to Finance
- Introduction to Homeland Security
- Introduction to Law
- Introduction to Medical Assisting
- Introduction to the Paralegal Profession
- Introduction to Psychology
- Introduction to Sociology
- Introductory Astronomy
- Leadership and Supervision in Business
- Medical Law and Ethics
- Medical Terminology
- Principles of Management
- Principles of Marketing
- Public Speaking
- Research Methods
- Sports Management

## Supplemental Instructional Support Programs

<table>
<thead>
<tr>
<th>SuccessMaker Reading</th>
<th>Skills for Success</th>
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<tbody>
<tr>
<td>SuccessMaker Math</td>
<td>Skills Tutor</td>
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<td>WriteToLearn</td>
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APPENDIX A
CURRICULUM

A.2 COURSE GUIDES

a. LANGUAGE ARTS
This document is part of Appendix A: Curriculum.

It includes course guides for each Language Arts class for students in Kindergarten through Grade 12.

- Language Arts K A
- Language Arts K B
- Language Arts 1 A
- Language Arts 1 B
- Language Arts 2 A
- Language Arts 2 B
- Language Arts 3 A
- Language Arts 3 B
- Language Arts 4 A
- Language Arts 4 B
- Language Arts 5 A
- Language Arts 5 B
- Language Arts 6 A
- Language Arts 6 B
- Language Arts 7 A
- Language Arts 7 B
- Language Arts 8 A
- Language Arts 8 B
- English 9 A
- English 9 B
- English 10 A
- English 10 B
- English 11 A
- English 11 B
- English 12 A
- English 12 B

Course guides provide detailed information on the curriculum including course descriptions, unit summaries, lesson objectives, activities, and assessment types. Course guides include information on:

- Planned instruction (provided in the unit summary of each unit within individual Course Guides)
- Course objectives (provided in the unit and lesson objectives within individual Course Guides)
- Activities (provided in the unit summary and lesson objectives of each unit within individual Course Guides)
LANGUAGE ARTS K A
Language Arts K A

In this course, students build a foundation for successful reading as they explore topics and apply reading, writing, speaking, and listening practices outlined in national and state standards. Learning activities consist of phonics, listening, comprehension, and vocabulary instruction with daily exposure to books, including literature and informational texts. A combination of interactive and hands-on exercises encourages the development of fine motor skills. Students learn language skills as well as letter formation, and they practice these with drawing, dictating, and writing. By the end of kindergarten, many students will be reading, and all students should be able to recognize consonant as well as long and short vowel sounds.

Unit 1: How Do We Live, Work, and Play Together?

Your student will answer the Big Question “How do we live, work, and play together?” while reading The Little School Bus, We Are So Proud!, Plaidypus Lost, Miss Bindergarten Takes a Field Trip with Kindergarten, Smash! Crash!, and Dig, Dig, Digging. In stories, rhymes, and songs, he will develop phonological awareness of rhyming words, syllables, initial, and final sounds. He will also practice sequencing, classifying, and categorizing as he learns about character and setting. Decodable Readers and Get Set, Roll! Readers will reinforce high-frequency words and letter recognition and develop oral vocabulary. Your student will practice recognizing and writing uppercase and lowercase letters, writing his name, and dictating or writing sentences.

Objectives:
- Describe how people live, work, and play together
- Recognize and write uppercase letters and dictate and compose sentences
- Develop oral vocabulary using high-frequency words and Amazing Words
- Identify rhyming words, syllables, and initial and final word sounds
- Sequence, classify, and categorize character and setting

Lesson 1: Ways to Ride (two-day lesson)

Objectives:
- Recognize and write uppercase and lowercase letters and dictation
- Develop oral vocabulary using high-frequency words and Amazing Words
- Sequence and classify character and setting
- Discuss concept of transportation, clarifying information when necessary
- Apply rules for speaking and listening

Lesson 2: A Bus Ride

Objectives:
- Recognize and write uppercase and lowercase Bb
- Develop oral vocabulary using high-frequency words
- Identify rhyming words
- Identify details in The Little School Bus
- Apply rules for speaking and listening

Lesson 3: Happy Riders

Objectives:
- Recognize and write uppercase and lowercase Cc
- Develop oral vocabulary using high-frequency words
- Apply rules for speaking and listening
- Describe details of a picture verbally or in writing

Lesson 4: Trucks Roll

Objectives:
- Recognize and write uppercase and lowercase Dd
- Develop oral vocabulary using high-frequency words
- Apply rules for speaking and listening
- Retell a story and identify its characters

Lesson 5: Getting Around

Objectives:
- Recognize and write uppercase and lowercase Aa, Bb, Cc, Dd, Ee
- Develop oral vocabulary using high-frequency and transportation words
- Identify characters in a story
- Identify rhyming words
- Apply rules for speaking and listening

Lesson 6: Proud of a Job (two-day lesson)

Objectives:
- Recognize and write uppercase and lowercase Ff and Gg
- Develop oral vocabulary using high-frequency and color words
- Recognize and write names
- Identify ways that children work and play together
- Apply rules for speaking and listening

Lesson 7: Cooperation

Objectives:
- Recognize and write uppercase and lowercase Hh and Ii
- Develop oral vocabulary using high-frequency and color words
- Identify and count syllables in words
- Follow words in a text from left to right, top to bottom, and page by page

Lesson 8: Our Creations

Objectives:
- Recognize and write uppercase and lowercase Jj and Kk
- Develop oral vocabulary using high-frequency and color words
- Write or dictate information for an invitation
- Apply rules for speaking and listening

Lesson 9: Our Guide

Objectives:
- Recognize and write uppercase and lowercase Ll and Mm
- Develop oral vocabulary using high-frequency and color words
- Recognize and write names
- Retell a story and identify its characters and setting
- Apply rules for speaking and listening

Lesson 10: Cooperating to Solve a Problem

Objectives:
- Recognize and write uppercase and lowercase Nn
- Develop oral vocabulary using high-frequency words
- Identify the setting of a story
- Apply rules for speaking and listening

Lesson 11: Cooperation in My Family (two-day lesson)

Objectives:
- Recognize and write uppercase and lowercase Oo
- Develop oral vocabulary using high-frequency and shape words
- Identify initial sounds in words
- Apply rules for speaking and listening

Lesson 12: Lost and Found

Objectives:
- Recognize and write uppercase P and lowercase p
- Develop oral vocabulary using high-frequency and shape words
- Identify initial sounds in words
- Follow words in a text from left to right, top to bottom, and page by page

Lesson 13: Good Listening

Objectives:
Lesson 14: Doing Steps in Order

Objectives:
- Recognize and write uppercase R and lowercase r
- Develop oral vocabulary using high-frequency and shape words
- Retell a story and identify its events in sequence
- Describe familiar people, places, things, and events
- Identify characters and setting in a story

Lesson 15: Machines Can Help Us

Objectives:
- Recognize and write uppercase S and lowercase s
- Recognize uppercase and lowercase Oo, Pp, Qq, Rr
- Develop oral vocabulary using high-frequency and shape words
- Identify ways that machines help families

Lesson 16: Community Cooperation (two-day lesson)

Objectives:
- Recognize and write uppercase and lowercase <em>Tt</em> and <em>Uu</em>
- Develop oral vocabulary using high-frequency and location words
- Identify community locations and the helpers that work in those locations

Lesson 17: Field Trip Fun

Objectives:
- Recognize and write uppercase and lowercase <em>Vv</em>
- Develop oral vocabulary using high-frequency and location words
- Identify initial sounds in words

Lesson 18: Giving Instructions

Objectives:
- Recognize and write uppercase and lowercase <em>Ww</em> and <em>Xx</em>
- Develop oral vocabulary using high-frequency and location words
- Write or dictate information for instructions

Lesson 19: People in My Community

Objectives:
- Recognize and write uppercase and lowercase Yy and Zz
- Develop oral vocabulary using high-frequency and location words
- Retell a story naming important details
- Classify and categorize items from a story

Lesson 20: Helping My Community

Objectives:
- Recognize and write uppercase and lowercase letters
- Develop oral vocabulary using high-frequency words
- Identify community helpers’ locations of and types of work
- Classify and categorize items from a text

Lesson 21: Doing Things with Friends (two-day lesson)

Objectives:
- Develop oral vocabulary using high-frequency and position words
- Describe activities we can do with friends
- Identify and use nouns for people, animals, and things
Lesson 22: Games Friends Play

Objectives:
- Develop oral vocabulary using high-frequency and position words
- Identify initial and final /m/ in words, write and read /m/ spelled Mm

Lesson 23: Friends Have Fun

Objectives:
- Develop oral vocabulary using high-frequency and position words
- Identify initial and final /m/ in words, write and read /m/ spelled Mm
- Write or dictate captions for pictures

Lesson 24: Friends Can Be Different or Alike

Objectives:
- Develop oral vocabulary using high-frequency and position words
- Retell a story and identify characters from the story

Lesson 25: Words for Friends

Objectives:
- Develop oral vocabulary using high-frequency and position words
- Identify and use nouns for people, animals, and things

Lesson 26: Machines I Use (two-day lesson)

Objectives:
- Develop oral vocabulary using high-frequency words and words for sizes
- Describe how machines help people

Lesson 27: Construction Machines

Objectives:
- Develop oral vocabulary using high-frequency words and words for sizes
- Read, write, and blend initial and final /t/ spelled Tt in words
- Draw pictures to represent ideas for a story

Lesson 28: Machine Movements

Objectives:
- Read and write initial and final /t/ spelled Tt in words
- Develop oral vocabulary using high-frequency words and words for sizes
- Identify and use nouns for people, animals, places, and things in sentences
- Brainstorm and write or dictate the beginning, middle, and end of a story

Lesson 29: Kinds of Machines

Objectives:
- Develop oral vocabulary using high-frequency words and words for sizes
- Retell a story including key details
- Sort and categorize common items
- Collaborate to write and share a story

Lesson 30: Machines for Writing

Objectives:
- Collaborate to write and share a story
Unit 2: How Are Animals and Plants Unique?

Your student will answer the Big Question, How are plants and animals unique?, while reading Flowers, Nature Spy, Animal Babies in Grasslands, Bear Snores On, and A Bed for Winter. In stories, rhymes, and songs, she will develop phonological awareness of rhyming words; syllables; and initial, medial, and final sounds. While reading informational texts, she will practice comparing and contrast, classifying and categorizing, and finding the main idea. She will also continue to develop her understanding of setting as she sequences events and distinguishes between realism and fantasy. Decodable Readers and Get Set, Roll! Readers will reinforce high-frequency words and letter recognition as well as develop oral vocabulary. Finally, your student will practice recognizing and writing uppercase and lowercase letters, labeling illustrations, and dictating or writing sentences.

Objectives:
- Describe what makes plants and animals unique
- Recognize and write uppercase and lowercase letters and dictate and compose sentences
- Develop oral vocabulary using high-frequency words and Amazing Words
- Identify rhyming words; syllables; and initial, medial, and final sounds
- Identify the main idea of informational texts and distinguish between realism and fantasy

Lesson 1: Parts of a Flower (two-day lesson)

Objectives:
- Develop oral vocabulary and use color words
- Read high-frequency words have, is
- Read /a/ spelled Aa
- Identify characteristics of plants
- Form regular plural nouns orally

Lesson 2: We Like Flowers

Objectives:
- Develop oral vocabulary and use color words
- Read high-frequency words have, is
- Identify initial and medial /a/ in words, write and read /a/ spelled Aa
- Identify experiences with flowers

Lesson 3: Fruit from Flowers

Objectives:
- Develop oral vocabulary and use color words
- Read high-frequency words have, is
- Identify initial and medial /a/ in words, write and read /a/ spelled Aa
- Identify and use plural nouns in sentences
- Identify parts of a flower

Lesson 4: Many Kinds of Flowers

Objectives:
- Develop oral vocabulary and use color words and regular plural nouns
- Read high-frequency words have, is
- Identify initial and medial /a/ in words, write and read /a/ spelled Aa
- Compare and contrast flowers
- Retell key details of a text

Lesson 5: Flowers Have a Job

Objectives:
- Develop oral vocabulary and use color words
- Read high-frequency words have, is
- Identify initial and medial /a/ in words, write and read /a/ spelled Aa
- Identify and use plural nouns in sentences
- Identify and describe the many purposes of flowers

Lesson 6: Nature Discoveries (two-day lesson)
Objectives:
- Develop oral vocabulary using high-frequency and nature words
- Identify initial /s/ in words
- Read /s/ spelled Ss
- Make observations while exploring nature

Lesson 7: Spying on Nature
Objectives:
- Develop oral vocabulary using high-frequency and nature words
- Identify initial and final /s/ in words
- Recognize and write upper- and lowercase Ss
- Read /s/ spelled Ss

Lesson 8: Where to Look
Objectives:
- Develop oral vocabulary and use high-frequency and nature words
- Identify initial and final /s/ in words
- Write and read /s/ spelled Ss
- Identify and use nouns, plural nouns, and proper nouns in isolation and in sentences
- Write a list identifying places in nature

Lesson 9: Looking Closely
Objectives:
- Develop oral vocabulary and use nature words
- Read high-frequency words have and is
- Identify initial /s/ in words, and read /s/ spelled Ss
- Identify proper nouns
- Retell a selection naming the setting and key details

Lesson 10: Nature Cycles
Objectives:
- Develop oral vocabulary using high-frequency and nature words and proper nouns
- Identify initial and final /s/ in words
- Write and read /s/ spelled Ss
- Identify the setting of a story
- Illustrate the life cycle of a plant

Lesson 11: Grassland Animals of the United States (two-day lesson)
Objectives:
- Develop oral vocabulary and use words for baby animals
- Read and write high-frequency words we, my, like
- Read words with /p/ spelled Pp
- Identify animal names and the name of each animal’s baby

Lesson 12: Other Grassland Animals
Objectives:
- Develop oral vocabulary and use words for baby animals
- Read high-frequency words we, my, like
- Identify initial and final /p/ in words and write and read words with /p/ spelled Pp
- Isolate and pronounce initial, medial, and final sounds in consonant-vowel-consonant words

Lesson 13: Grassland Babies
Objectives:
- Develop oral vocabulary and use words for baby animals
- Read high-frequency words we, my, like
- Read words with /p/ spelled Pp
- Identify and use adjectives for color and shape
- Write notes about an elephant

**Lesson 14: Caring Mother Animals**

Objectives:
- Develop oral vocabulary and use words for baby animals
- Read high-frequency words we, my, like
- Identify initial and final /p/ in words and write and read words with /p/ spelled Pp
- Identify and use adjectives for color and shape
- Retell a selection and identify its main idea

**Lesson 15: How Grassland Animal Babies Behave**

Objectives:
- Develop oral vocabulary and use words for baby animals
- Read high-frequency words we, my, like
- Identify initial and final /p/ in words and write and read /p/ spelled Pp
- Identify and use adjectives for color and shape
- Identify the main idea of a selection

**Lesson 16: Hibernation (two-day lesson)**

Objectives:
- Read /k/ spelled Cc
- Develop oral vocabulary and use words for seasons
- Read high-frequency words we, my, and like
- Explain the concept of hibernation

**Lesson 17: Why Bears Hibernate**

Objectives:
- Identify initial /k/ in words and write and read /k/ spelled Cc
- Develop oral vocabulary and use words for seasons
- Read high-frequency words we, my, and like

**Lesson 18: Preparing to Hibernate**

Objectives:
- Read high-frequency words we, my, and like
- Identify initial /k/ in words, and write and read /k/ spelled Cc
- Develop oral vocabulary, and use words for seasons
- Identify and use adjectives in sentences
- Write a poem using words that rhyme with cat

**Lesson 19: Real or Make-Believe Animals?**

Objectives:
- Identify initial /k/ in words, and write and read /k/ spelled Cc
- Develop oral vocabulary and use words for seasons
- Read high-frequency words we, my, and like
- Retell a reading selection and identify whether it is real or fantasy
- Identify and use adjectives in sentences

**Lesson 20: Animals That Hibernate**

Objectives:
- Identify initial /k/ in words, and write and read /k/ spelled Cc
- Develop reading and oral vocabulary using high-frequency words we, my, like and words for seasons
- Identify whether a selection is real or fantasy
- Identify animals that hibernate like a bear
- Identify and use adjectives in sentences

**Lesson 21: Domestic and Wild Animals (two-day lesson)**

Objectives:
- Read /k/ spelled Cc
- Develop reading and oral vocabulary using high-frequency words we, my, like and words for seasons
- Identify whether a selection is real or fantasy
- Identify animals that hibernate like a bear
- Identify and use adjectives in sentences
Objectives:
- Recognize /i/ spelled Ii
- Develop oral vocabulary and use sequence words
- Read high-frequency words he, for
- Identify sequence words first, second, next, last
- Identify different types of homes for different animals

Lesson 22: Different Kinds of Animal Homes
Objectives:
- Identify initial and medial /i/ in words and write and read /i/ spelled Ii
- Develop oral vocabulary and use sequence words
- Read high-frequency words he, for
- Identify and use adjectives in sentences
- Write a caption for an illustration of an animal’s home

Lesson 23: Animals That Build Homes
Objectives:
- Identify initial and medial /i/ in words and write and read /i/ spelled Ii
- Develop oral vocabulary and use sequence words
- Read high-frequency words he, for
- Identify and use adjectives in sentences

Lesson 24: Animals that Find Homes
Objectives:
- Identify initial and medial /i/ in words and write and read /i/ spelled Ii
- Develop oral vocabulary and use sequence words
- Read high-frequency words he, for
- Retell a selection and identify its events in sequence
- Identify and use adjectives in sentences

Lesson 25: Animal Neighborhoods
Objectives:
- Identify initial and medial /i/ in words and write and read /i/ spelled Ii
- Develop oral vocabulary and use sequence words
- Read high-frequency words he, for
- Identify events of a selection in sequence
- Identify and use adjectives in sentences

Unit 3: How Does Change Affect Us?
In this unit, your student will learn about how animals grow and change over time, and identify how life is different today than long ago. Your student will read and discuss how change affects us and animals in the books Little Panda, Little Quack, and George Washington Visits. Your student will practice reading the high-frequency words me, with, she, see, and look when reading Decodable eBooks and eReaders from the Reading Street Interactive Digital Path website. He will also continue to identify initial, medial, and final sounds of words when learning how to blend, spell, and write. Your student will practice identifying initial /r/, /d/, and /k/, and initial and final /n/ and /b/ in words. Your student will build comprehension by comparing and contrasting information from texts, identify the plot of a story, and identify cause-and-effect relationships. Your student will identify meaningful word groups in order to construct sentences, in past, present, and future tense. Lastly, he will learn how to write an invitation and a persuasive statement to express understanding.

Objectives:
- Develop understanding of oral vocabulary, color, action, position, feelings, opposites, and high-frequency words
- Identify, read, and write words with initial /r/, /d/, and /k/, and initial and final /n/ and /b/
- Identify meaningful words groups to construct a sentence and use verbs in the past, present, and future tenses
- Retell a selection to identify plot and compare and contrast its features
- Analyze how living things grow and change

Lesson 1: A Healthy Panda (two-day lesson)
Objectives:
• Develop understanding of oral vocabulary, color, and high-frequency words
• Read words with /n/ spelled Nn
• Infer how a panda stays healthy
• Illustrate how a panda stays healthy while it grows

Lesson 2: A Mother Panda’s Care 🐼
Objectives:
• Develop oral vocabulary, color, and high-frequency words
• Identify initial and final /n/ and /b/ in words
• Write and read words with /n/ spelled Nn and /b/ spelled Bb
• Explain how a baby panda depends on his mother

Lesson 3: Curious Baby Panda 🐼
Objectives:
• Develop oral vocabulary, color, and high-frequency words
• Identify initial and final /n/ and /b/ in words
• Write and read words with /n/ spelled Nn and /b/ spelled Bb
• Identify and use verbs in sentences
• Summarize the events of a panda’s first year of life

Lesson 4: Eating to Grow 🍓
Objectives:
• Develop oral vocabulary, color, and high-frequency words
• Identify initial and final /n/ and /b/ in words and write and read words with /n/ spelled Nn and /b/ spelled Bb
• Identify and use verbs in sentences
• Retell a selection and compare and contrast its features
• Review main idea in a selection

Lesson 6: Growing and Learning (two-day lesson) 🌸
Objectives:
• Develop oral vocabulary and use action words
• Read high-frequency words me, with, she
• Read words with initial /r/ spelled Rr
• Identify ways a child grows and changes

Lesson 7: Ducklings Grow and Change 🐗
Objectives:
• Develop oral vocabulary and use action words
• Read high-frequency words me, with, she
• Read words with initial /r/ spelled Rr
• Blend words with initial /r/
• Identify what ducklings learn as they grow

Lesson 8: All Animals Grow and Change 🐋
Objectives:
• Develop oral vocabulary using action and high-frequency words
• Identify, read, and write words with initial /r/ spelled Rr
• Identify past and present tense verbs to use in sentences
• Dictate or write an invitation
• Identify similarities in how animals grow and change

Lesson 9: Feelings About Changes 🌸
Objectives:
• Develop oral vocabulary using action and high-frequency words
• Identify initial /r/ in words and write and read initial /r/ spelled Rr
• Identify and use verbs in sentences
• Retell a story and identify its plot
• Recall realism and fantasy and categorize the story
Lesson 10: Learning to Migrate

Objectives:
• Develop oral vocabulary, action words, and high-frequency words
• Identify initial /r/ in words and write and read initial /r/ spelled Rr
• Identify and use verbs in sentences
• Identify plot in a story
• Identify reasons why animals migrate as they grow

Lesson 11: Finding Out About Life Long Ago (two-day lesson)

Objectives:
• Develop oral vocabulary using high-frequency and position words
• Identify, read, and write words with initial /d/ spelled Dd
• Complete sentences using high-frequency words
• Identify examples of how life was different long ago

Lesson 12: Jobs Hundreds of Years Ago

Objectives:
• Identify and read words with initial /d/ and /k/
• Write and read words spelled with Dd and Kk
• Develop oral vocabulary using high-frequency and position words
• Compare and contrast modern life to the past

Lesson 13: Travel Hundreds of Years Ago

Objectives:
• Identify initial and final /d/ and initial /k/ in words
• Write and read words spelled with Dd and Kk
• Develop oral vocabulary using high-frequency and position words
• Recognize and use verb endings –s and –ed
• Compose a persuasive statement about life today or in the past

Lesson 14: Cause and Effects Long Ago

Objectives:
• Identify words with initial /d/ and /k/
• Write and read words spelled with Dd and Kk
• Develop oral vocabulary using high-frequency and position words
• Retell events of a story
• Identify cause and effect in a story

Lesson 15: Celebrations Then and Now

Objectives:
• Identify words with initial /d/ and /k/
• Write and read words spelled with Dd and Kk
• Develop oral vocabulary using high-frequency and position words
• Recognize and use verb endings –s and –ed
• Identify cause and effect in a story
LANGUAGE ARTS K B
Language Arts K B

In this course, students build a foundation for successful reading as they explore topics and apply reading, writing, speaking, and listening practices outlined in national and state standards. Learning activities consist of phonics, listening, comprehension, and vocabulary instruction with daily exposure to books, including literature and informational texts. A combination of interactive and hands-on exercises encourages the development of fine motor skills. Students learn language skills as well as letter formation, and they practice these with drawing, dictating, and writing. By the end of kindergarten, many students will be reading, and all students should be able to recognize consonant as well as long and short vowel sounds.

Unit 1: How Does Change Affect Us?

In this unit, your student will learn how animals grow and change over time, and identify how life is different today than long ago. Your student will read and discuss how change affects people and animals in the books Farfallina and Marcel and Then and Now. Your student will also practice reading the high-frequency words see, look, they, you, and of when reading Decodable eBooks and eReaders from the Reading Street Interactive Digital Path website. He will continue to identify initial, medial, and final sounds of words when learning how to blend, spell, and write. Your student will practice identifying initial and final /f/ and initial and medial /o/ in words. He will build comprehension by identifying the plot of a story and drawing conclusions. In addition, your student will identify meaningful word groups in order to construct sentences in past, present, and future tense. Lastly, he will learn how to write captions to express understanding.

Objectives:
- Develop understanding of oral vocabulary, color, action, position, feelings, opposites, and high-frequency words
- Identify, read, and write words with initial and final /f/ and initial and medial /o/
- Identify meaningful words groups to construct a sentence and use verbs in the past, present, and future tenses
- Retell a selection to identify plot and draw conclusions about its features
- Analyze how living things grow and change

Lesson 1: Animals Grow and Change (two-day lesson)

Objectives:
- Develop oral vocabulary using high-frequency words and words for feelings
- Identify, read, and write words with /f/ spelled Ff
- Identify how an animal or insect changes as it grows
- Form future tense verbs

Lesson 2: Geese Grow and Change

Objectives:
- Identify initial /f/ in words and write and read /f/ spelled Ff
- Develop oral vocabulary using high-frequency words and words for feelings
- Retell a story including important details
- Identify and use future tense verbs

Lesson 3: I Have Grown and Changed

Objectives:
- Identify initial and final /f/ in words and write and read /f/ spelled Ff
- Develop oral vocabulary and use high-frequency words and words for feelings
- Identify and use verbs in sentences
- Illustrate one way that a child grows and changes
- Write a caption that identifies details of an illustration

Lesson 4: Friends Forever

Objectives:
- Identify initial and final /f/ in words and write and read /f/ spelled Ff
- Develop oral vocabulary and use high-frequency words and words for feelings
- Identify and use verbs in sentences
- Retell the plot of a story and identify the story's characters
Lesson 5: Big Changes to Caterpillars (two-day lesson)

Objectives:
- Identify initial and final /f/ in words and write and read /f/ spelled Ff
- Develop oral vocabulary and use high-frequency words and words for feelings
- Identify and use verbs in sentences
- Identify plot in a story
- Describe the life cycle of a butterfly

Lesson 6: Technology Changes Our Lives (two-day lesson)

Objectives:
- Identify and read words with /o/ spelled Oo
- Develop oral vocabulary and use high-frequency words
- Draw conclusions using text information and prior knowledge
- Describe how common household items have changed over time

Lesson 7: Machines Help Us at Home

Objectives:
- Identify initial and medial /o/ in words, write and read /o/ spelled Oo
- Develop oral vocabulary, and use high-frequency words and words for opposites
- Identify an item used in the present that has changed from the past
- Draw conclusions about how machines have changed the way people live
- Rearrange groups of words in order to construct meaningful sentences

Lesson 8: Toys and Games Then and Now

Objectives:
- Identify initial and medial /o/ in words, write and read /o/ spelled Oo, and add or substitute sounds in words
- Develop oral vocabulary and use high-frequency words and words for opposites
- Identify and illustrate how games and toys have changed from long ago to today
- Arrange groups of words to create meaningful sentences

Lesson 9: Schools in the Past and Today

Objectives:
- Identify initial and medial /o/ in words, write and read /o/ spelled Oo
- Develop oral vocabulary and use high-frequency words and words for opposites
- Retell a story comparing and contrasting and drawing conclusions about the story’s content
- Identify and illustrate similarities and differences of schools in the past and today
- Identify and orally form meaningful word groups

Lesson 10: Some Things Stay the Same (two-day lesson)

Objectives:
- Identify initial and medial /o/ in words, and write and read /o/ spelled Oo
- Develop oral vocabulary and use high-frequency words and words for opposites
- Draw conclusions based on information in text and prior knowledge
- Identify, illustrate, and describe similarities and differences of objects from the past and today
- Form meaningful word groups to create a sentence

Unit 2: Where Will Our Adventures Take Us?

Your student will answer the Big Question “Where Will Our Adventures Take Us?” while reading Rooster’s Off to See the World, My Lucky Day, One Little Mouse, Goldilocks and the Three Bears, and Abuela. In stories, rhymes, and songs, he will develop phonological awareness of rhyming words, syllables, and initial, medial, and final sounds. He will also practice sequencing, comparing and contrasting, and drawing conclusions as he continues to develop his understanding.
of plot and character. While reading informational texts, he will identify cause and effect and summarize the main idea. Decodable Readers and Get Set, Roll! Readers will reinforce high-frequency words and letter recognition and develop oral vocabulary. Your student will practice recognizing and writing uppercase and lowercase letters, dictating or writing sentences, and applying speaking and listening skills.

Objectives:
- Describe what people can learn from adventures
- Recognize and write uppercase and lowercase letters
- Develop oral vocabulary using high-frequency and amazing words
- Sequence, compare and contrast, and draw conclusions about plot and character
- Identify cause and effect and summarize the main idea of informational texts

Lesson 1: Adventure Time (two-day lesson)

Objectives:
- Develop oral vocabulary using high-frequency words and words for adventure
- Identify, read, and write initial /h/ in words
- Identify the naming part of sentences
- Recall the sequence of events

Lesson 2: Adventures with Friends

Objectives:
- Develop oral vocabulary using high-frequency words, words for sequence, and words for adventure
- Identify, read, and write initial /h/ in words
- Identify the naming part of sentences

Lesson 3: Adventures at Home

Objectives:
- Develop oral vocabulary using high-frequency words and words for adventure
- Identify, read, and write initial /h/ in words
- Identify a sentence
- Write and give directions

Lesson 4: Adventures Away from Home

Objectives:
- Develop oral vocabulary using high-frequency words, words for sequence, and words for adventure
- Identify and read the sound made by the consonant /h/ and vowel /o/
- Retell the correct sequence of a story

Lesson 5: Learning from Adventures (two-day lesson)

Objectives:
- Develop oral vocabulary using high-frequency words and words for adventure
- Identify and read the sound made by the consonant /h/
- Identify naming part of sentences
- Retell the correct sequence of a story

Lesson 6: Being Lucky (two-day lesson)

Objectives:
- Develop oral vocabulary using high-frequency words and words for adventure
- Identify, read and write words that begin with /l/
- Identify action part of sentences
- Identify cause and effect

Lesson 7: Lucky Adventures

Objectives:
- Develop oral vocabulary using high-frequency words, words for texture, and words for adventure
- Identify, read, and write words that end with /l/ that sounds /l/
- Identify action part of sentences
- Retell story events

Lesson 8: Exciting Adventures

Objectives:
- Develop oral vocabulary using high-frequency words and words for adventure
- Identify words with initial and final /l/
- Identify naming part of sentences
- Compare and contrast objects

Lesson 9: Lucky Surprises

Objectives:
- Develop oral vocabulary using high-frequency words, words for texture, and words for adventure
- Identify cause and effect
- Identify action part of sentences
- Read and write words with /l/

Lesson 10: I Feel Lucky (two-day lesson)

Objectives:
- Develop oral vocabulary using high-frequency words and words for adventure
- Identify, read, and write words that begin and end with /l/ that sounds /l/
- Identify action part of sentences
- Retell a story

Lesson 11: Animal Adventures (two-day lesson)

Objectives:
- Identify words with the consonant blend /l/
- Develop oral vocabulary using high-frequency words and words for animal habitats
- Identify story sequence
- Identify the naming and action parts of a sentence
- Write or dictate a complete sentence and question using the word <em>why</em>

Lesson 12: Curious Animals

Objectives:
- Distinguish between words that begin with consonant blends /l/, /r/, /t/, /p/
- Develop oral vocabulary using high-frequency words and shape words
- Identify the name and action parts of a sentence
- Write a sentence that describes

Lesson 13: Animal Homes

Objectives:
- Distinguish between words that end with consonant blends and those that end with consonants
- Develop oral vocabulary using high-frequency words and words for animal habitats
- Identify the correct sequence of a story
- Identify the naming and action parts of a sentence
- Write a sentence that describes

Lesson 14: Animals Try New Things

Objectives:
- Develop oral vocabulary using words for shapes and story words comfortable and shadows
- Retell the events of a story and identify story sequence
Lesson 15: Animal Adventure Places (two-day lesson)

Objectives:
- Distinguish and read words with consonant blends
- Develop oral vocabulary using high-frequency words for numbers
- Retell the events of a story in sequence
- Identify the sequence of direction in nonfiction procedural text
- Write or dictate a complete sentence

Lesson 16: Helping Someone in Trouble (two-day lesson)

Objectives:
- Identify words that begin and end with /g/
- Write the letter Gg
- Develop oral vocabulary using high-frequency words and story words
- Develop ideas about how adventures can cause trouble
- Identify the reason people tell stories and story characters
- Write a story using telling sentences

Lesson 17: Rules

Objectives:
- Identify and write words that begin and end with /g/
- Develop oral vocabulary using compound words, high-frequency words, and story words
- Retell the events of a story
- Identify different rules for different locations
- Write or identify a telling sentence

Lesson 18: Being Careful

Objectives:
- Identify, read, and write words that begin and end with /g/
- Develop oral vocabulary using high-frequency words and story words: big, cottage
- Identify the naming and action part of a sentence
- Name story characters
- Dictate a list

Lesson 19: Being Safe

Objectives:
- Identify and spell words with /g/ and consonant blends with /l/
- Develop oral vocabulary using compound words
- Distinguish between character and setting
- Identify a telling sentence
- Write a list

Lesson 20: Making Good Decisions

Objectives:
- Identify and read words that begin and end with /g/
- Develop oral vocabulary using high-frequency words and story words bears, cottage, middle-sized, porridge, big, small
- Retell a story
- Distinguish between a folktale and other types of literature
- Write a telling sentence using capitalization and punctuation
Lesson 21: In the City (two-day lesson)

Objectives:
• Develop oral vocabulary using high-frequency words, pronouns, and words for adventure
• Recognize character and settings in a story
• Identify and write letter Ee and initial sounds /e/, /h/, /l/, and /g/
• Write a list

Lesson 22: City and Country

Objectives:
• Develop oral vocabulary using high-frequency words, pronouns, and time words
• Identify, read, and write letter Ee, initial and medial /e/ and other initial sounds
• Retell a story and distinguish between a city and a country setting
• Identify media sources for research

Lesson 23: Buildings in the City

Objectives:
• Develop oral vocabulary using high-frequency words and story words
• Identify, read, and write letter Ee, initial and medial /e/ and other initial sounds
• Identify buildings found in the city
• Recognize story setting
• Write a complete sentence and a list

Lesson 24: Places to Visit

Objectives:
• Develop oral vocabulary using high frequency words, pronouns, and time words
• Read high-frequency words and blend sounds to read words with /e/
• Identify places in a city
• Distinguish between realism and fantasy
• Make and revise a list

Lesson 25: Traveling in the City (two-day lesson)

Objectives:
• Develop oral vocabulary using high frequency words and pronouns
• Identify and read initial and medial /e/
• Retell a story and identify types of transportation in a city
• Distinguish characteristics of an informational text
• Edit and share a list

Unit 3: How Do People And Things Get From Here to There?

Your will student will answer the Big Question: How do people and things get from here to there? while reading Max Takes the Train, Mayday! Mayday!, Trucks Roll, On the Move!, and This Is the Way We Go to School. In stories, rhymes, and songs, he will develop phonological awareness of rhyming words, syllables, initial, and final sounds. He will also practice sequencing, drawing conclusions, and identifying cause and effect as he learns about plot, character, and theme. Decodable Readers and Get Set, Roll! Readers will reinforce high-frequency words and letter recognition, as well as develop oral vocabulary. Your student will practice spelling words, composing questions, and dictating or writing sentences.

Objectives:
• Describe modes of transportation
• Write words, sentences, and questions using uppercase and lowercase letters
• Develop oral vocabulary using high-frequency words and Amazing Words
• Identify rhyming words, syllables, initial, and final word sounds
• Sequence, draw conclusions, and analyze cause and effect in plot, character, and theme

Lesson 1: What Is Transportation? (two-day lesson)

Objectives:
• Develop oral vocabulary using high-frequency color words and words for transportation
• Identify, read, and write words that begin with /j/
• Distinguish between realism and fantasy
• Identify and ask questions

Lesson 2: Land, Water, and Sky

Objectives:
• Develop oral vocabulary using high-frequency color words and words for transportation
• Identify and write words that begin with /w/
• Distinguish between realism and fantasy
• Ask and answer questions

Lesson 3: Alike and Different

Objectives:
• Develop oral vocabulary using high-frequency color words and words for transportation
• Identify, read, and write words that begin with /j/ and /w/
• Distinguish between realism and fantasy
• Write a caption

Lesson 4: Transportation Helps Us Go Places

Objectives:
• Develop oral vocabulary using high-frequency color words and words for transportation
• Identify, read, and write words with /j/, /w/, and /e/
• Identify questions
• Identify story plot

Lesson 5: Traveling Far (two-day lesson)

Objectives:
• Develop oral vocabulary using high-frequency color words and words for transportation
• Read words with /j/ and /w/
• Distinguish between realism and fantasy
• Retell a story

Lesson 6: Help! Emergency! (two-day lesson)

Objectives:
• Use oral vocabulary using high-frequency color words and words for transportation
• Identify and read words that end in /ks/
• Write the letter Xx and words ending in /ks/
• Demonstrate understanding of cause and effect
• Write or dictate a question

Lesson 7: Helicopters Can Help

Objectives:
• Develop oral vocabulary using high-frequency words, position words, and words for transportation
• Identify words that end in /ks/
• Write the letter Xx and words ending in /ks/
• Write or dictate a question

Lesson 8: Coast Guard to the Rescue

Objectives:
• Develop oral vocabulary using high-frequency words and words for transportation
• Identify, read, and write words that end in /ks/
• Identify cause and effect relationships
• Identify questions and add correct punctuation
• Respond to literature
Lesson 9: Emergency Transportation

Objectives:
- Develop oral vocabulary using high-frequency words, position words, and words for transportation
- Identify, read, and write words that end in /ks/ and write the letter Xx
- Identify cause and effect relationships
- Identify a sequence of events
- Write a question

Lesson 10: Emergency Transportation Is Important

Objectives:
- Develop oral vocabulary using high-frequency words and words for transportation
- Identify, read, and write words that end in /ks/
- Identify cause and effect relationships
- Write a question

Lesson 11: Transportation for Jobs Is Important (two-day lesson)

Objectives:
- Develop oral vocabulary using high-frequency words and words for transportation
- Identify prepositions in sentences
- Identify, read, and write words with initial and medial /u/ spelled Uu
- Compare and contrast transportation

Lesson 12: Transportation for Jobs

Objectives:
- Develop oral vocabulary using high-frequency words, words for jobs, and words for transportation
- Use prepositions in sentences
- Identify, read, and write words with initial and medial /u/ spelled Uu
- Compare and contrast transportation

Lesson 13: Parts of a Truck

Objectives:
- Develop oral vocabulary using high-frequency words and words for transportation
- Identify, read, and write words with initial and medial /u/ spelled Uu
- Compare and contrast transportation
- Write a poem
- Respond to literature

Lesson 14: I Need Transportation to Do My Job

Objectives:
- Develop oral vocabulary using high-frequency words, words for jobs, and words for transportation
- Identify prepositions in sentences
- Identify, read, and write words with initial and medial /u/ and final /ks/
- Compare and contrast transportation
- Draw conclusions to identify various settings in a story

Lesson 15: Trucks Haul

Objectives:
- Develop oral vocabulary using high-frequency words and words for transportation
- Identify and use prepositions
Lesson 16: Traveling in a City (two-day lesson)

Objectives:
- Recognize and write uppercase and lowercase Vv and Zz
- Develop oral vocabulary using high-frequency, compound words, transportation words, and nouns
- Identify words with initial /v/ and /z/
- Describe how people in different parts of the world travel
- Summarize the main idea of a story

Lesson 17: Transportation

Objectives:
- Develop oral vocabulary using high-frequency, compound, and transportation words
- Identify, read, and write words with initial /v/ and /z/
- Identify nouns
- Describe how people in different parts of the world travel

Lesson 18: Traveling with Animals

Objectives:
- Develop oral vocabulary using high-frequency, compound, and transportation words
- Identify, read, and write words with final /v/ and /z/
- Identify nouns
- Describe how people in different parts of the world travel
- Summarize the main idea of a story

Lesson 20: Best Ways to Travel (two-day lesson)

Objectives:
- Develop oral vocabulary using high-frequency, compound, and transportation words
- Read, write, and identify words with initial and final /v/ and /z/
- Identify nouns
- Describe how people in different parts of the world travel
- Summarize the main idea of a story

Lesson 21: Ways of Going to School (two-day lesson)

Objectives:
- Recognize and write uppercase and lowercase Qq and Yy
- Develop oral vocabulary using high-frequency words, words for transportation, and verbs
- Identify and read words with initial /y/ and /kw/
- Draw conclusions about how students around the world get to school
- Generate a topic for a how-to report

Lesson 22: Why Do You Go to School that Way?

Objectives:
- Recognize and write uppercase and lowercase Qq and Yy
- Develop oral vocabulary using high-frequency words, words for transportation, and verbs
- Identify and read words with /y/ and /kw/
- Identify media sources used in research

Lesson 23: Where on Earth?

Objectives:
- Develop oral vocabulary using high-frequency words, words for transportation, and nouns
• Identify and read words with initial /y/ and /kw/
• Draw conclusions about how students around the world get to school
• Retell the plot of a story
• Draft a how-to report

Lesson 24: Children Travel Differently

Objectives:
• Develop oral vocabulary using high-frequency words, words for transportation, and verbs
• Identify and read words with initial /y/ and /kw/ 
• Draw conclusions about how students around the world get to school
• Identify main idea
• Revise a how-to report

Lesson 25: Going to School (two-day lesson)

Objectives:
• Develop oral vocabulary using high-frequency words, words for transportation, and verbs
• Read and write words with /y/ and /kw/ 
• Draw conclusions about the plot of a story
• Edit and share a how-to report
• Apply speaking and listening skills
LANGUAGE ARTS 1 A
Language Arts 1 A

The emergent reader will begin to become a fluent reader throughout this course. The student will read and write daily, practice new skills, and uncover the patterns that are the foundations of words, sentences, and stories. The student will apply new skills to read and understand fiction and nonfiction stories presented in Scott Foresman’s *Reading Street* series.

Stories are organized into themes such as "Communities" and "Animals, Tame and Wild." Examining literature through themes helps the student to make connections between texts and to connect reading topics to personal knowledge and interests. The student will also read *Ira Sleeps Over*, a fun book about a child’s first sleep over. Reading instruction includes sound manipulation, phonics, vocabulary, comprehension, and fluency. The student will also read short, decodable readers that are linked and printable from the student's lesson page. In addition to formal reading instruction, the student will have the opportunity to complete engaging extension activities.

As the student learns to read, he will also learn to write. The student’s vocabulary will grow through discussions of ideas and opinions. Listening and speaking will help the student learn grammar skills and correct sentence and story construction. Guided instruction and practice in Zaner-Bloser’s *Handwriting* will teach the student proper manuscript technique. Spelling instruction correlates to the phonics skills taught through the student's stories. Language skills and handwriting come together as the student composes journal entries and writes pieces of increasing length and complexity. Students gain speaking and listening skills through questioning and the use of audio recording.

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Note: This course contains applications that are not compatible with a Mac computer. The use of these applications is not necessary for successful completion of the course but serves as additional instructional resources.

Unit 1: You're in First Grade Now

In this unit, your student will review letters and letter-sounds introduced in kindergarten. He will build on existing reading skills by reading brief, easily decodable books that give him the opportunity to practice both phonics and comprehension skills. These decodable books are linked and printable from your student's lesson page. Reading selections also improve your student's understanding of fantasy, realistic fiction, and nonfiction. Your student will learn and practice essential skills for decoding and understanding text, such as blending and segmenting sounds. Phonics and spelling instruction reviews each letter of the alphabet. Comprehension skills include understanding the main idea of a selection and retelling key events of a story. Reading instruction also addresses fluency skills and the development of sight vocabulary. Brief writing assignments introduce your student to the writing process.

Objectives:
- Review letter-sound patterns and word structure to read and spell words correctly
- Read fiction and nonfiction selections and learn to distinguish between the two
- Apply reading comprehension skills and strategies before, during, and after reading
- Follow the steps of the writing process

**Lesson 1: Apples to Hippos: Lesson 1**

Objectives:
- Recall the alphabet by singing the alphabet song and pointing to letters
- Identify letters Aa, Bb by pointing to the letter
- Recognize correspondence between Bb and sound /b/
- Identify rhyming words
- Dictate a story
- Demonstrate handwriting knowledge by writing letters
- Read sight words see, the, and you

**Lesson 2: Apples to Hippos: Lesson 2**

Objectives:
- Recognize letters Cc, Dd by pointing to each letter
- Recognize correspondence between letter c and /k/
- Recognize correspondence between letter d and /d/
Lesson 3: Apples to Hippos: Lesson 3
Objectives:
- Identify letters Ee, Ff by pointing and tracing each letter
- Recognize correspondence between Ff and sound /f/
- Read sight words from and am
- Segment sounds into syllables
- Practice proper handwriting postures

Lesson 4: Apples to Hippos: Lesson 4
Objectives:
- Identify letters Gg, Hh by pointing to each letter
- Recognize correspondence between Gg and /g/
- Recognize correspondence between Hh and /h/
- Read sight words go, we
- Identify onsets and rimes verbally
- Preview handwriting models and guidelines

Lesson 5: Apples to Hippos: Lesson 5
Objectives:
- Review letters and consonant sounds Aa through Hh by pointing to and naming each letter
- Produce and identify rhyming words orally
- Count syllables in a spoken word
- Review handwriting guidelines

Lesson 6: Ice Cream to Penguins: Lesson 1
Objectives:
- Identify letters Ii and Jj by pointing and naming
- Recognize correspondence between Jj and sound /j/
- Read sight words have, little, do
- Segment onsets and rimes
- Brainstorm words about school
- Practice writing vertical lines

Lesson 7: Ice Cream to Penguins: Lesson 2
Objectives:
- Identify letters Kk and Ll by pointing and naming
- Recognize correspondence between Kk and sound /k/
- Recognize correspondence between Ll and sound /l/
- Read sight words are, look, they
- Isolate initial sounds in a spoken word
- Dictate a story
- Practice writing horizontal lines using a pencil

Lesson 8: Ice Cream to Penguins: Lesson 3
Objectives:
- Identify letters Mm and Nn by pointing and naming
- Recognize correspondence between Mm and sound /m/
Lesson 9: Ice Cream to Penguins: Lesson 4
Objectives:
- Identify letters Oo and Pp by pointing and naming
- Recognize correspondence between Pp and sound /p/
- Read sight words my and here
- Isolate final sounds in a spoken word
- Build groups of sight words
- Practice writing backward circles using a pencil

Lesson 10: Ice Cream to Penguins: Lesson 5
Objectives:
- Segment and isolate sounds in spoken words
- Review letters Ii through Pp and associated consonant and vowel sounds by pointing and naming sounds
- Review handwriting guidelines by practicing taught strokes
- Read sight words

Lesson 11: Quails to X-Ray Fish: Lesson 1
Objectives:
- Identify the letters Qq and Rr by pointing and naming
- Recognize correspondence between Qq and sound /kw/
- Recognize correspondence between Rr and sound /r/
- Segment syllables in a spoken word
- Brainstorm ideas for a story about a farm
- Practice writing forward circles using a pencil

Lesson 12: Quails to X-Ray Fish: Lesson 2
Objectives:
- Identify letters Ss and Tt by pointing and naming
- Recognize correspondence between Ss and sound /s/
- Recognize correspondence between Tt and sound /t/
- Read sight words is, he, me
- Segment sounds in a spoken word
- Dictate a story

Lesson 13: Quails to X-Ray Fish: Lesson 3
Objectives:
- Identify the letters Uu and Vv by pointing and naming
- Recognize correspondence between Vv and sound /v/
- Read sight words was, for, she
- Blend spoken words into sentences
- Revise a story about a farm
- Practice writing slant lines using a pencil

Lesson 14: Quails to X-Ray Fish: Lesson 4
Objectives:
- Identify letters Ww, Xx by pointing and naming
- Recognize correspondence between Ww and sound /w/
- Recognize correspondence between Xx and sound /ks/
- Read sight words said, to
- Blend spoken syllables into words
- Build sentences and phrases with sight words
- Practice writing numerals 1 through 5

Lesson 15: Quails to X-Ray Fish: Lesson 5
Objectives:
- Review letters and consonant sounds Qq through Xx
- Segment and blend sounds in spoken words
Lesson 16: Yaks and Zebras: Lesson 1

Objectives:
- Identify letters Yy, Zz by pointing and naming
- Recognize correspondence between Yy and sound /y/
- Read sight words one, two, and three
- Delete syllables from spoken words
- Practice writing numerals 11 through 15 with a pencil
- Brainstorm items to take on a trip to a city

Lesson 17: Yaks and Zebras: Lesson 2

Objectives:
- Identify short sounds for vowels a and e by listening and naming
- Delete syllables from spoken words
- Dictate a story about a trip to a city
- Read sight words what and of

Lesson 18: Yaks and Zebras: Lesson 3

Objectives:
- Substitute sounds in spoken words
- Identify short sounds for vowels i, o, and u by listening and naming
- Revise a story about a city
- Write numerals 16 and 20 with a pencil
- Read sight words four and five

Lesson 19: Yaks and Zebras: Lesson 4

Objectives:
- Recall and identify letters of the alphabet by pointing and naming
- Substitute sounds and syllables in spoken words
- Practice writing numerals 1 through 20 with a pencil
- Read sight words where and that
- Reread dictated stories

Lesson 20: You're in First Grade Now Unit Test

Unit 2: Animals, Tame and Wild

In this unit, your student will learn about animals through reading selections that improve her ability to distinguish between fantasy, realistic fiction, and nonfiction. Your student will learn and practice essential skills for decoding and understanding text. She will continue to practice blending and segmenting sounds. Phonics and spelling instruction focuses on consonants, short vowels, and inflected endings for base words. Comprehension skills include self-monitoring comprehension, using fix-up strategies, summarizing, and visualizing. Reading instruction also addresses fluency skills, such as reading with expression, and vocabulary development, such as using context clues. Additionally, your student will learn the characteristics of nouns and verbs and the parts of a simple sentence. She will apply this knowledge in weekly writing assignments that teach her to write sentences in response to a given prompt. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:
- Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
- Read fiction and nonfiction selections and learn to distinguish between the two
- Apply reading comprehension skills and strategies before, during, and after reading
- Understand the parts of a simple sentence
- Follow the steps of the writing process to write simple sentences in response to a writing prompt

Lesson 1: Sam, Come Back!: Lesson 1

Objectives:
- Associate the sound /a/ with the letter a
- Blend, read, and build regular short a words
- Segment sounds to spell words
Lesson 2: Sam, Come Back!: Lesson 2

Objectives:
- Isolate final sounds
- Associate the final sound /k/ with the letters ck
- Blend, read, and build final ck words
- Segment sounds to spell words
- Recognize high frequency words
- Identify sentences
- Speak to communicate ideas

Lesson 3: Sam, Come Back!: Lesson 3

Objectives:
- Listen to and say phonemes
- Create short a and final ck words
- Identify and spell words with short a
- Discuss and use sentences in writing
- Identify characters in a story
- Identify who is telling the story
- Demonstrate fluency and accuracy when reading aloud

Lesson 4: Sam, Come Back!: Lesson 4

Objectives:
- Identify position of sounds
- Recognize high frequency words
- Review consonant sounds
- Spell words with short a (CVC)
- Respond to a sing-along
- Read aloud fluently with accuracy
- Write a description

Lesson 5: Sam, Come Back!: Lesson 5

Objectives:
- Decode short a words and final ck words
- Read high-frequency words
- Identify and describe character

Lesson 6: Pig in a Wig: Lesson 1

Objectives:
- Blend and segment phonemes
- Associate the sound /i/ with the letter i
- Blend, read, and build regular short i words
- Practice fluency with oral rereading
- Build background and oral vocabulary
- Distinguish realism and fantasy
- Identify naming parts of sentences

Lesson 7: Pig in a Wig: Lesson 2

Objectives:
- Apply knowledge of letter-sounds to decode unknown words when reading
- Use context with letter-sounds to confirm the identification of unknown words
- Identify characters in a story
- Practice fluency with oral rereading

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Lesson 8: Pig in a Wig: Lesson 3
Objectives:
- Blend and segment phonemes
- Build short i and final x words
- Spell words with short i
- Learn selection words
- Recognize realism and fantasy
- Summarize the events in a story
- Use naming parts of sentences in writing

Lesson 9: Pig in a Wig: Lesson 4
Objectives:
- Isolate initial and final sounds
- Recognize high frequency words
- Review short a and final ck words
- Spell words with short i
- Recognize rhyme and rhythm in a song
- Identify sentences

Lesson 10: Pig in a Wig: Lesson 5
Objectives:
- Spell words with short i
- Decode short i and final x words
- Read high-frequency words
- Distinguish between realism and fantasy

Lesson 11: The Big Blue Ox: Lesson 1
Objectives:
- Blend and segment phonemes
- Blend, read, and build regular short o words
- Spell words with short o
- Practice fluency with oral rereading
- Build background and oral vocabulary
- Identify character and setting
- Identify action parts of sentences

Lesson 12: The Big Blue Ox: Lesson 2
Objectives:
- Add ending phonemes
- Associate the letter s with /s/ and /z/
- Blend, read, and sort -s plural words
- Spell words with short o
- Recognize high-frequency words
- Identify action parts of sentences
- Speak to communicate information
Lesson 13: The Big Blue Ox: Lesson 3

Objectives:
- Blend and segment phonemes
- Sort short o words
- Spell words with short o
- Learn selection words
- Visualize characters, setting, and events
- Read aloud fluently using an appropriate pace/rate
- Use sentences in writing

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Lesson 14: The Big Blue Ox: Lesson 4

Objectives:
- Isolate initial and final sounds
- Recognize high-frequency words
- Spell words with short o
- Recognize text structure: nonfiction
- Read aloud fluently using an appropriate rate and pace
- Review action parts of sentences
- Write sentences

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Lesson 15: The Big Blue Ox: Lesson 5

Objectives:
- Spell words with short o
- Decode short o and -s plurals
- Read high-frequency words
- Recognize and describe a character and identify and describe a setting

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Lesson 16: A Fox and a Kit: Lesson 1

Objectives:
- Add ending phonemes /s/, /z/
- Blend, read, and sort words with the inflected ending -s without spelling changes
- Spell words with inflected ending -s
- Practice fluency with oral rereading
- Build background and oral vocabulary
- Identify main idea
- Identify correct word order

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Lesson 17: A Fox and a Kit: Lesson 2

Objectives:
- Blend and segment syllables
- Blend, read, and sort words with the inflected ending -ing without spelling changes
- Spell words with inflected ending -s without spelling changes
- Recognize high-frequency words
- Practice fluency with oral rereading
- Identify correct word order
- Speak and listen to participate in large and small group discussions

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Lesson 18: A Fox and a Kit: Lesson 3

Objectives:
- Blend and segment syllables
- Sort words with inflected endings -s and -ing
- Spell words with inflected ending -s with no spelling changes
Lesson 19: A Fox and a Kit: Lesson 4

Objectives:
- Identify position of sounds
- Recognize high frequency words
- Review short o and -s plurals
- Spell words with inflected ending -s without spelling changes
- Read aloud fluently with accuracy and appropriate rate
- Recognize correct word order
- Write a title for a story

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Lesson 20: A Fox and a Kit: Lesson 5

Objectives:
- Review words with inflected endings -s and -ing without spelling changes
- Spell words with inflected endings -s
- Decode words with inflected endings -s and -ing
- Read high-frequency words
- Recognize main idea

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Lesson 21: Get the Egg!: Lesson 1

Objectives:
- Blend and segment phonemes
- Blend, read, and build regular short e words
- Spell words with short e
- Practice fluency with oral rereading
- Distinguish realism and fantasy
- Identify telling sentences

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Lesson 22: Get the Egg!: Lesson 2

Objectives:
- Add initial phonemes
- Blend, read, and sort words with initial consonant blends
- Spell words with short e
- Practice fluency with oral rereading
- Recognize high-frequency words
- Identify telling sentences
- Speak to retell a story

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Lesson 23: Get the Egg!: Lesson 3

Objectives:
- Listen to and blend and segment phonemes
- Read and group words with short e and initial consonant blends
- Read and spell words with short e
- Preview selection words
- Recognize realism and fantasy in a selection
- Identify story structure
- Identify words and phrases that suggest feelings

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Lesson 24: Get the Egg!: Lesson 4

Objectives:
- Blend and segment syllables

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Lesson 25: Get the Egg! Lesson 5

Objectives:
- Spell words with short e
- Decode words with short e and initial consonant blends
- Read high-frequency words
- Distinguish realism and fantasy

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Lesson 26: Animal Park: Lesson 1

Objectives:
- Blend and segment phonemes
- Blend, read, and build regular short u words
- Spell words with short u
- Practice fluency with oral rereading
- Ask and answer questions
- Recognize cause and effect
- Identify questions

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Lesson 27: Animal Park: Lesson 2

Objectives:
- Delete final phonemes
- Blend, read, and sort words with final consonant blends
- Spell words with short u
- Recognize high-frequency words
- Identify questions
- Capitalize questions
- Speak to communicate information and ask questions

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Lesson 28: Animal Park: Lesson 3

Objectives:
- Listen to, blend and segment phonemes
- Create short u and final consonant blend words
- Spell words with short u and high frequency words
- Preview selection words
- Identify cause and effect in a story
- Use illustrations and text to learn more about a story
- Demonstrate fluency while attending to punctuation when reading aloud

Lesson 29: Animal Park: Lesson 4

Objectives:
- Discuss the unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy
- Respond to unit selections through a variety of modalities

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Unit 3: Communities

In this unit, your student will explore the theme of communities. Your student will read fiction and nonfiction selections about communities as he continues to learn essential skills.
for decoding and understanding text. He will continue to practice blending and segmenting phonemes and words, including words with the consonant digraphs *th* and *sh*. Phonics and spelling instruction focuses on long vowel sounds spelled with the CVCe pattern. Students also learn about contractions and the inflected ending –ed. Reading comprehension skills include finding the main idea, understanding causes and effects, understanding sequence, comparing and contrasting, and thinking about the author’s purpose for writing. Reading instruction also addresses fluency skills, such as reading accurately and paying close attention to punctuation, as well as vocabulary development skills, including understanding categories of words such as time-order words and directional terms. Additionally, your student will further develop his understanding of nouns, including proper nouns and the function of nouns in sentences. Writing instruction provides additional practice in writing sentences and builds to writing short paragraphs. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:

- Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
- Read fiction and nonfiction selections that explore the theme of communities
- Apply reading comprehension skills and strategies before, during, and after reading
- Understand the characteristics of nouns, including proper nouns
- Follow the steps of the writing process to respond to writing prompts, developing compositions in a variety of genres

**Lesson 1: Max and Ruby: A Big Fish for Max: Lesson 1**

**Objectives:**

- Segment and count phonemes
- Blend, read, and sort words with digraphs *sh*, *th*
- Spell words with digraphs *sh*, *th*
- Build background and oral vocabulary
- Identify main idea
- Identify nouns

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**Lesson 2: Max and Ruby: A Big Fish for Max: Lesson 2**

**Objectives:**

- Blend and segment phonemes
- Associate /ô/ with the letter a followed by *l* or *ll*
- Blend, read, and build words that have the vowel sound in ball
- Spell words with digraphs *sh*, *th*
- Practice fluency with oral rereading
- Recognize high-frequency words
- Identify nouns

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**Lesson 3: Max and Ruby: A Big Fish for Max: Lesson 3**

**Objectives:**

- Listen to, blend and segment phonemes
- Create digraph *sh*, *th* words and words that have the vowel sound in ball
- Use spelling words with digraphs *sh*, *th* in sentences
- Discuss and use action verbs in writing
- Identify the main idea of a story
- Use illustration and text to identify key ideas
- Make predictions after reading a story

**Lesson 4: Max and Ruby: A Big Fish for Max: Lesson 4**

**Objectives:**

- Segment and count phonemes
- Recognize high-frequency words
- Spell words with digraphs *sh*, *th*
- Recognize text structure: nonfiction
- Read aloud fluently with accuracy and appropriate rate
- Identify nouns

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Lesson 5: Max and Ruby: A Big Fish for Max: Lesson 5

Objectives:
- Decode words with digraphs sh, th and words with the vowel sound in ball
- Spell words with digraphs sh, th
- Read high-frequency words
- Recognize main idea

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Lesson 6: The Farmer in the Hat: Lesson 1

Objectives:
- Distinguish long and short vowel sounds
- Blend, read, and build regular long a words
- Spell words with long a (CVCe)
- Build background and oral vocabulary
- Recognize cause and effect
- Identify proper nouns

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Lesson 7: The Farmer in the Hat: Lesson 2

Objectives:
- Blend and segment phonemes
- Blend, read, and build words with c /s/ , g /j/
- Spell words with long a (CVCe)
- Practice fluency with oral rereading
- Identify proper nouns
- Use proper nouns in writing
- Speak to dramatize a story

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Lesson 8: The Farmer in the Hat: Lesson 3

Objectives:
- Blend and segment phonemes
- Blend, read, and sort regular long a words (CVCe) and short a words (CVC)
- Spell words with long a (CVCe)
- Learn selection words
- Recognize cause and effect
- Use illustrations to monitor and fix up
- Use proper nouns in writing

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Lesson 9: The Farmer in the Hat: Lesson 4

Objectives:
- Segment and count phonemes
- Review digraphs sh, th and vowel sound in ball
- Spell words with long a (CVCe)
- Recognize text structure: nonfiction
- Read aloud fluently, attending to exclamation marks
- Identify proper nouns
- Write an invitation

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Lesson 10: The Farmer in the Hat: Lesson 5

Objectives:
- children learn by working together in 4-H.
Lesson 11: Who Works Here?: Lesson 1

Objectives:
- Distinguish long/short vowel sounds
- Blend, read, and build regular long i words
- Spell words with long i (CVCe)
- Build background and oral vocabulary
- Speak in complete sentences
- Identify author's purpose
- Identify special titles

Lesson 12: Who Works Here?: Lesson 2

Objectives:
- Blend and segment phonemes
- Blend, read, and sort words with digraphs wh, ch, tch
- Spell words with long i (CVCe)
- Recognize high-frequency words
- Capitalize special titles
- Speak or sing clearly with appropriate volume

Lesson 13: Who Works Here?: Lesson 3

Objectives:
- Listen to, blend and segment phonemes
- Blend, read, create, and group regular long i words and words with digraphs
- Spell words orally with long i
- Identify and use conventions in writing
- Identify author's purpose
- Ask questions to better understand a selection
- Draw a picture that illustrates text

Lesson 14: Who Works Here?: Lesson 4

Objectives:
- Distinguish long and short vowel sounds
- Review long a, c /s/, and g /j/
- Spell words with long i (CVCe)
- Recognize text structure: nonfiction
- Read aloud fluently, attending to periods
- Identify special titles
- Write a want ad

Lesson 15: Who Works Here?: Lesson 5

Objectives:
- Spell words with long i (CVCe)
- Decode words with long i (CVCe) and with digraphs wh, ch, tch
- Read high-frequency words
- Identify author's purpose

Lesson 16: The Big Circle: Lesson 1

Objectives:
- Blend, read, and build regular long o words CVCe
Lesson 17: The Big Circle: Lesson 2

Objectives:
- Blend and segment phonemes
- Use structural cues to recognize contractions n't, 'm, 'll
- Read and sort contractions n't, 'm, 'll
- Spell words with long o (CVCe)
- Recognize high-frequency words
- Capitalize days, months, holidays
- Apply knowledge of letter-sounds and word parts to decode unknown words when reading

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Lesson 18: The Big Circle: Lesson 3

Objectives:
- Blend and segment phonemes
- Build words with long o and contractions
- Spell words with long o
- Learn selection words
- Recognize sequence
- Recognize and use organization in writing
- Use names of days, months, and holidays in writing

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Lesson 19: The Big Circle: Lesson 4

Objectives:
- Listen to words, identify and separate phonemes: initial, medial, final
- Read, review, and sort words with long i and digraphs
- Review and write spelling words with long o (CVCe)
- Use text structure to better understand a nonfiction selection
- Write advice about celebrating a holiday
- Write a paragraph using words that show order
- Identify proper nouns: days, months, holidays

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Lesson 20: The Big Circle: Lesson 5

Objectives:
- Spell words with (CVCe) long o
- Decode words with long o (CVCe)
- Decode contractions n't, 'm, 'll
- Read aloud with accuracy and at an appropriate rate
- Identify sequence of events
- Retell a story

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Lesson 21: Life in the Forest: Lesson 1

Objectives:
- Substitute phonemes
- Associate the sound /u/ and the sound /e/ with the CVCe spelling pattern
- Blend, read, and build regular long u words (CVCe)
- Spell words with long u (CVCe)
- Build background and oral vocabulary
- Identify author’s purpose
- Identify one and more than one

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Lesson 22: Life in the Forest: Lesson 2

Objectives:
- Add final phonemes
- Blend, read, and sort words with inflected ending -ed, /t/, /d/, /ed/
- Spell words with long u (CVCe)
- Recognize high-frequency words
- Identify one and more than one
- Write about one and more than one
- View to recall the details and overall impact of the photo or illustrations

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Lesson 23: Life in the Forest: Lesson 3

Objectives:
- Blend and segment phonemes
- Sort long u and long e (CVCe) words and words with inflected ending -ed
- Spell words with long u (CVCe)
- Learn selection words
- Recognize author's purpose
- Use text features to preview text
- Use one and more than one in writing

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Lesson 24: Life in the Forest: Lesson 4

Objectives:
- Blend and segment phonemes
- Write a report
- Spell words with long u (CVCe)
- Recognize text structure: nonfiction
- Discuss meanings of multiple meaning words
- Read aloud fluently, attending to periods
- Identify one and more than one

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Lesson 25: Life in the Forest: Lesson 5

Objectives:
- Review long u, long e (CVCe); inflected ending -ed /t/, /d/, /ed/
- Spell words with long u (CVCe)
- Decode words with long u, long e (CVCe)
- Decode words with inflected ending -ed
- Read high-frequency words
- Recognize author's purpose
- Retell a story

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Lesson 26: Honey Bees: Lesson 1

Objectives:
- Substitute phonemes
- Associate the sound /e/ with e and ee
- Blend, read, and build long e words
- Spell words with long e: e, ee
- Build background and oral vocabulary
- Identify similarities and differences
- Identify nouns in sentences

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Lesson 27: Honey Bees: Lesson 2

Objectives:
- Blend and segment syllables
- Use structural clues to decode words with syllable pattern VCCV

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Lesson 28: Honey Bees: Lesson 3

Objectives:

- Listen to, blend and segment syllables
- Blend, read, and group long e: e, ee words and VCCV words
- Read and write spelling words with long e: e, ee
- Use nouns when writing sentences
- Identify similarities and differences within text
- Demonstrate fluency while attending to accuracy and appropriate rate when reading aloud
- Create an informational bookmark about bees

Optional Extension

Watch the Discovery Education™ streaming movie with your student and answer any questions he may have.

Lesson 29: Honey Bees: Lesson 4

Objectives:

- Identify and isolate medial phonemes
- Review long u (CVCe), long e (CVCe), and inflected ending -ed
- Spell words with long e: e, ee
- Read aloud fluently, attending to accuracy and appropriate rate
- Identify nouns in sentences
- Recognize high-frequency words

Lesson 30: Communities Unit Test

Unit 4: Ira Sleeps Over

In this unit, your student will read the book *Ira Sleeps Over* by Bernard Waber. This enjoyable story focuses on Ira's sleepover at his friend Reggie's house. Ira must decide whether or not to take his beloved teddy bear to the sleepover and risk being teased. As your student explores this conflict, she will give her opinion of what Ira should do as well as relate Ira's experiences with her own. She will work with long vowel words as well as compound words. Your student will work with a group of vocabulary words in a variety of contexts. Your student will have the opportunity to read the story aloud, building her fluency.

Objectives:

- Relate a fiction text to personal experience
- Apply reading comprehension skills and strategies before, during, and after reading
- Apply knowledge of letter patterns and word structure to spell compound words correctly
- Build oral and written vocabulary
- Follow the steps of the writing process to form an opinion and support it

Lesson 1: Ira Sleeps Over: Lesson 1

Objectives:

- Distinguish short and long vowel a sounds in a spoken word
- Associate the long a sound with the CVCe pattern and build words with this pattern
- Preview compound words before reading them in a story
- Learn new vocabulary words by identifying known and unknown words
- Recall events in a story
- Form an opinion about sleepovers and discuss it
Lesson 2: Ira Sleeps Over: Lesson 2

Objectives:
- Distinguish between long and short vowel e sounds in a spoken word
- Build CVCe words with letter I
- Read and build compound words from the story
- Read vocabulary words and recognize as nouns
- Infer meaning from a story read aloud
- Form an opinion and support it

Lesson 3: Ira Sleeps Over: Lesson 3

Objectives:
- Distinguish between long and short vowel o sounds in a spoken word
- Build CVCe words with the letter o
- Read and spell compound words
- Identify vocabulary words as nouns
- Infer meaning from a story read aloud
- Write a first draft of an opinion in complete sentences

Lesson 4: Ira Sleeps Over: Lesson 4

Objectives:
- Distinguish between long and short vowel u sounds in a spoken word
- Build CVCe words with letter u
- Build new compound words
- Create an invitation to a sleepover using vocabulary words
- Make predictions about future events in a story
- Edit and revise opinion sentences

Lesson 5: Ira Sleeps Over: Lesson 5

Objectives:
- Differentiate between long and short vowel sounds in spoken words
- Associate long vowel sounds with CVCe pattern
- Spell compound words
- Read and understand unit vocabulary words
- Check predictions, infer meaning, and practice fluency with oral reading
- Write final draft of opinion sentences and illustrate
LANGUAGE ARTS 1 B
**Language Arts 1 B**

The emergent reader will blossom into a fluent reader throughout this course. The student will read and write daily, practice new skills, and uncover the patterns that are the foundations of words, sentences, and stories. The student will apply new skills to read and understand fiction and nonfiction stories presented in Scott Foresman's *Reading Street* series. Stories are organized into themes such as "Treasures" and "Great Ideas." Examining literature through themes helps the student to make connections between texts and to connect reading topics to personal knowledge and interests. Reading instruction includes sound manipulation, phonics, vocabulary, comprehension, and fluency. The student will also read short, decodable readers that are linked and printable from the student's lesson page. In addition to formal reading instruction, the student will have the opportunity to complete engaging extension activities.

As the student learns to read, he will also learn to write. The student’s vocabulary will grow through discussions of ideas and opinions with the Learning Coach. Listening and speaking will help the student learn grammar skills and correct sentence and story construction. Guided instruction and practice in Zaner-Bloser *Handwriting* will teach the student proper manuscript technique. Spelling instruction correlates to the phonics skills taught through the student’s stories. Language skills and handwriting come together as the student composes journal entries and writes pieces of increasing length and complexity. Students gain speaking and listening skills through questioning and the use of audio recording.

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**Unit 1: Changes**

In this unit, your student will explore the theme of changes. Your student will read fiction and nonfiction selections about human and animal characters as he continues to learn essential skills for decoding and understanding text. He will continue to practice blending and segmenting phonemes and syllables. Phonics and spelling instruction focuses on the long *e* and long *i* sounds; words with *ng* and *nk*; words with *er*, *ir*, and *ur*; and words with the added endings *–es*, *–ed*, *–er*, and *–est*. Comprehension skills include comparing and contrasting, drawing conclusions, and understanding plot, theme, and story sequence. Reading instruction also addresses fluency skills, such as reading accurately and paying attention to punctuation cues, as well as vocabulary development skills, such as understanding synonyms and antonyms and using a dictionary. Additionally, your student will learn about how to use verbs correctly, including singular and plural verb forms, past- and present-tense verbs, forms of the verb *to be*, and verbs used within contractions. Your student will apply this knowledge as he completes a variety of writing assignments, including numbered steps and lists, a greeting card, a poem, and a song. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

**Objectives:**

- Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
- Read fiction and nonfiction selections that explore the theme of change
- Apply reading comprehension skills and strategies before, during, and after reading
- Understand the characteristics of verbs
- Follow the steps of the writing process to respond to writing prompts in a variety of genres

**Lesson 1: An Egg Is an Egg: Lesson 1**

**Objectives:**

- Segment phonemes
- Associate the vowel sounds /i/ and /e/ with *y*
- Spell words with the vowel sounds of *y*
- Build background and oral vocabulary
- Compare and contrast
- Identify action verbs

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Lesson 2: An Egg Is an Egg: Lesson 2

Objectives:
- Substitute phonemes
- Blend, read, and sort CV words
- Spell words with the vowel sounds of y
- Write steps
- Identify action verbs
- Speak to communicate information
- Listen to follow directions

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Lesson 3: An Egg Is an Egg: Lesson 3

Objectives:
- Segment, blend, and echo the sound of phonemes
- Blend and sort words with the vowel sound of y and long vowels (CV)
- Spell and sort words with the vowel sounds of y
- Read informational text with support
- Compare and contrast information from a selection
- Demonstrate understanding of action verbs in writing
- List steps in a process

Lesson 4: An Egg Is an Egg: Lesson 4

Objectives:
- Segment and count phonemes
- Review long e: e, ee and syllables VCCV
- Spell words with the vowel sounds of y
- Respond to a realistic story
- Read aloud fluently with accuracy and at an appropriate rate
- Identify action verbs
- Write steps

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Lesson 5: An Egg Is an Egg: Lesson 5

Objectives:
- Spell words with vowel sounds of y
- Decode vowel sounds of y and long vowels (CV)
- Read high-frequency words
- Read aloud with appropriate speed and accuracy
- Compare and contrast
- Retell a story

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Lesson 6: Ruby in Her Own Time: Lesson 1

Objectives:
- Say, blend, and segment onset/rime for select words
- Recognize the sound /ng/ stands for –ng and /ngk/ stands for –nk
- Spell words that end with –ng and –nk
- List and demonstrate verbs that add –s
- Identify plot in a selection
- Collaborate with diverse partners about a topic
- Use digital tools to create and publish a list

Lesson 7: Ruby in Her Own Time: Lesson 2

Objectives:
- Blend and segment word parts
- Use blending and understanding of word parts to identify compound words
- Spell words ending with –ng and –nk
- Identify high-frequency words in a selection
• Identify images that clarify ideas, thoughts, and feelings
• Provide clear directions when speaking
• Use good listening skills to follow directions in the order given

Lesson 8: Ruby in Her Own Time: Lesson 3

Objectives:
• Say, blend, and segment onset and rime for selected words
• Use understanding of word parts to read and sort compound words
• Spell words ending in –ng and –nk
• Use digital tools to create and publish a list
• Recognize plot in a reading selection
• Summarize a story
• Read and complete sentences with action verbs

Lesson 9: Ruby in Her Own Time: Lesson 4

Objectives:
• Listen and count sounds
• Review vowel sounds of y and long vowels CV and sort by number of syllables
• Spell words with ending in –ng and –nk
• Use text structure to understand nonfiction
• Demonstrate fluency, attending to question marks while reading aloud
• Talk about and identify verbs that add –s
• Use digital tools to create and publish a list

Lesson 10: Ruby in Her Own Time: Lesson 5

Objectives:
• Identify words ending in –ng and –nk, and compound words
• Spell words ending in –ng and –nk
• Say, spell, and identify high-frequency words
• Answer questions about the plot of a story
• Retell a passage
• Use digital tools to create and publish a list

Lesson 11: Jan's New Home: Lesson 1

Objectives:
• Listen, blend, and add phonemes /ez/
• Blend, read, and recognize the difference between ending –es words with plural –es words
• Complete spelling pretest of words with ending –es; plural –es
• Collaborate with diverse partners about a topic
• Build background and oral vocabulary to understand a selection
• Recognize the theme of a story
• Recognize verbs that do not add –s

Lesson 12: Jan's New Home: Lesson 2

Objectives:
• Blend and segment onset/rime
• Associate the sound /ôr/ with or, ore
• Blend, read, and build r-controlled or, ore words
• Spell words with ending -es; plural -es
• Recognize high-frequency words
• Determine if the verb is for two or more
• Speak to make introductions

Lesson 13: Jan's New Home: Lesson 3

Objectives:
• Say, blend, and segment onset/rime
• Recognize and sort words with ending –es; plural –es and r-controlled or, –ore words

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• Identify images that clarify ideas, thoughts, and feelings
• Use digital tools to create and publish a greeting card
• Recognize the theme of a story
• Summarize details to understand a text
• Use verbs in sentences

Lesson 14: Jan's New Home: Lesson 4

Objectives:
• Listen, segment, and count syllables
• Review words ending in final –ng and –nk and compound words
• Review and spell words with ending –es; plural –es
• Use text structure to understand a letter
• Demonstrate fluency, attending to periods and exclamation marks when reading aloud
• Identify and sort verbs that do not add –s
• Use digital tools to create and publish a greeting card

Lesson 15: Jan's New Home: Lesson 5

Objectives:
• Use words with ending –es; plural –es
• Identify words ending –es, plural –es, and r-controlled or, ore
• Use high-frequency words in a rhyme
• Identify the theme of a story
• Retell a reading passage
• Use digital tools to create and publish a greeting card

Lesson 16: Frog and Toad Together: Lesson 1

Objectives:
• Blend and segment phonemes
• Blend, read, and sort words with the inflected endings -ed, -ing
• Spell words with inflected ending -ed
• Practice fluency with oral rereading
• Build background and oral vocabulary
• Identify the plot of a story
• Identify verbs for now and the past

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Lesson 17: Frog and Toad Together: Lesson 2

Objectives:
• Substitute phonemes
• Blend, read, and build regular /är/ words
• Spell words with inflected ending -ed
• Identify verbs for now and the past
• Speak to retell a story in sequence
• Listen to understand a story

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Lesson 18: Frog and Toad Together: Lesson 3

Objectives:
• Blend and segment phonemes
• Build, read, and sort words with inflected endings -ed, -ing
• Spell words with -ed ending
• Learn selection words
• Recognize plot
• Visualize characters, settings, and events
• Use verbs for now and the past in writing

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Lesson 19: Frog and Toad Together: Lesson 4

Appendix A.2.a Language Arts Course Guides

Language Arts 1 B

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Objectives:
- Add initial and final phonemes
- Review ending -es; plural -es and r-controlled or, -ore
- Spell words with inflected ending -ed
- Recognize text structure: nonfiction
- Read aloud fluently with expression
- Write a poem
- Identify verbs for now and the past

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Lesson 20: Frog and Toad Together: Lesson 5

Objectives:
- Spell words with inflected ending -ed
- Decode inflected endings -ed, -ing and r-controlled ar
- Read high-frequency words
- Recognize story plot
- Retell a story

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Lesson 21: I'm a Caterpillar: Lesson 1

Objectives:
- Build and segment onset/rime
- Blend, read, and build /er/ words
- Spell words with er, ir, ur
- Build background and oral vocabulary
- Draw conclusions about the characters and events in a story
- Identify am, is, are, was, and were

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Lesson 22: I'm a Caterpillar: Lesson 2

Objectives:
- Delete final phonemes
- Read and sort contractions 's, 've, 're
- Spell words with er, ir, ur
- Recognize high-frequency words
- Identify am, is, are, was, and were
- Speak to summarize information

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Lesson 23: I'm a Caterpillar: Lesson 3

Objectives:
- Blend and break words into sounds: onset and rime
- Use understanding of sounds including regular r-controlled er, ir, ur words and contractions 's, 've, 're to build, spell, and read select words
- Spell and sort words with er, ir, ur
- Preview selection words
- Identify who is telling a story
- Draw conclusions from a reading selection
- Use chronological/sequential text structure to understand a selection

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Lesson 24: I'm a Caterpillar: Lesson 4

Objectives:
- Substitute phonemes
- Recognize high-frequency words
- Review inflected endings -ed, -ing and r-controlled ar
- Recognize text structure: nonfiction illustrations with captions
- Read aloud fluently, attending to end punctuation
- Identify am, is, are, was, and were
- Spell words with er, ir, ur
Lesson 25: I'm a Caterpillar: Lesson 5

Objectives:
- Spell words with er, ir, ur
- Decode r-controlled er, ir, ur and contractions 's, 've, 're
- Read high-frequency words
- Draw conclusions
- Retell a story

Lesson 26: Where Are My Animal Friends?: Lesson 1

Objectives:
- Add phonemes
- Blend, read, and build words with comparative endings -er, -est
- Spell words with comparative endings
- Build background and oral vocabulary
- Identify the sequence of events
- Identify contractions with not

Lesson 27: Where Are My Animal Friends?: Lesson 2

Objectives:
- Segment phonemes
- Blend, read, and build -dge words
- Spell words with comparative endings
- Recognize high-frequency words
- Identify contractions with not
- Speak to communicate information
- Practice fluency with oral rereading

Lesson 28: Where Are My Animal Friends?: Lesson 3

Objectives:
- Blend and segment phonemes
- Build, read, and sort words with comparative endings and dge /j/ words
- Spell words with comparative endings
- Learn selection words
- Recognize sequence
- Activate and use prior knowledge
- Use contractions with not in writing

Lesson 29: Where Are My Animal Friends?: Lesson 4

Objectives:
- Blend and segment onset and rime
- Review r-controlled er, ir, ur words and contractions 's, 've, 're
- Spell words with comparative endings -er, -est
- Respond to poetry read aloud
- Read aloud fluently with expression and intonation
- Identify contractions with not
- Write a song

Lesson 30: Changes Unit Test

Unit 2: Treasures
In this unit, your student will explore the theme of treasures. Your student will read fiction and nonfiction selections about different kinds of treasures as she continues to learn essential skills for decoding and understanding text. She will continue to practice blending and segmenting phonemes and words, including words with three-letter consonant blends. Phonics and spelling instruction focuses on long vowel sounds spelled with digraphs, such as _ay, _ai, _ea, _oa_, and _ow_. Your student will also learn about word endings, such as possessives endings, – _er, –_est, –_ly, and –_ful, and learn about base words whose spelling changes when an ending is added. Reading comprehension skills include drawing conclusions; and understanding character, setting, plot, and theme; understanding causes and effects; and thinking about the author’s purpose for writing. Reading instruction also addresses fluency skills, such as reading accurately and with expression, as well as vocabulary development skills, such as understanding homophones and identifying words borrowed from other languages. Additionally, your student will learn about how to use adjectives correctly, including adjectives to describe color, size, shape, and other characteristics. Writing instruction focuses on learning to write paragraph-length compositions, including a book review, numbered steps, a poster, and explanatory paragraphs. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:
- Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
- Read fiction and nonfiction selections that explore the theme of treasures
- Apply reading comprehension skills and strategies before, during, and after reading
- Understand the characteristics of adjectives
- Follow the steps of the writing process to respond to writing prompts, developing paragraph-length compositions in a variety of genres

Lesson 1: Mama's Birthday Present: Lesson 1
Objectives:
- Substitute initial phonemes
- Blend, read, and build long a: _ai words
- Spell words with long a: _ai, _ay
- Practice fluency with oral rereading
- Build background and oral vocabulary
- Draw conclusions
- Identify adjectives

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Lesson 2: Mama’s Birthday Present: Lesson 2
Objectives:
- Add phoneme /z/
- Use structural cues to decode possessives: singular and plural
- Spell words with long a: _ai, _ay
- Recognize high-frequency words
- Identify adjectives
- Speak to communicate information
- Listen to understand the purpose of the speaker

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Lesson 3: Mama’s Birthday Present: Lesson 3
Objectives:
- Read and sort long a: _ay, _ay words and singular and plural possessives
- Spell words with long a: _ai, _ay
- Learn selection words
- Draw conclusions
- Reread and review to monitor and fix up
- Recognize and use sentences in writing
- Use adjectives in writing

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Lesson 4: Mama’s Birthday Present: Lesson 4

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Objectives:
• Recognize high-frequency words
• Review words with comparative endings -er, -est and dge /j/ words
• Spell words with long a: ai, ay
• Recognize text-structure: nonfiction
• Read aloud fluently with expression and intonation
• Identify adjectives
• Write a book review

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Lesson 5: Mama's Birthday Present: Lesson 5

Objectives:
• Spell words with long a: ai, ay
• Decode long a: ai, ay words and possessives: singular and plural
• Read high-frequency words
• Draw conclusions
• Retell a story

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Lesson 6: The Dot: Lesson 1

Objectives:
• Substitute phonemes
• Associate the sound /e/ with ea
• Spell words with long e: ea
• Build background and oral vocabulary
• Identify the theme of a story
• Identify adjectives for colors and shapes

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Lesson 7: The Dot: Lesson 2

Objectives:
• Segment and count syllables
• Spell words with long e: ea
• Practice fluency with oral rereading
• Recognize high-frequency words
• Identify adjectives for color and shape
• Speak to solve a problem
• Listen to understand a problem

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Lesson 8: The Dot: Lesson 3

Objectives:
• Build, read, and sort long e: ea words and words with inflected endings (spelling change: y to i)
• Spell words with long e: ea
• Learn selection words
• Recognize theme
• Create and use graphic organizers
• Recognize and use organization in writing
• Use adjectives for colors and shapes in writing

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Lesson 9: The Dot: Lesson 4

Objectives:
• Recognize high-frequency words
• Review long a: ai, ay and possessives
• Spell words with long e: ea
• Recognize text structure: nonfiction

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• Read aloud fluently with accuracy and appropriate rate
• Identify adjectives for colors and shapes
• Write steps

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Lesson 10: The Dot: Lesson 5

Objectives:
• Spell words with long e: ea
• Decode long e: ea and inflected endings (spelling change y to i)
• Read high-frequency words
• Recognize the theme of a story
• Retell a story

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Lesson 11: Mister Bones: Dinosaur Hunter: Lesson 1

Objectives:
• Substitute initial phonemes
• Blend, read, and build regular long o: oa, ow words
• Spell words with long o: oa, ow
• Practice fluency with oral rereading
• Build background and oral vocabulary
• Identify author's purpose
• Identify adjectives for sizes

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Lesson 12: Mister Bones: Dinosaur Hunter: Lesson 2

Objectives:
• Segment phonemes
• Blend, read, and build words with three-letter consonant blends
• Spell words with long o: oa, ow
• Recognize high-frequency words
• Identify adjectives for sizes
• Speak to show feelings

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Lesson 13: Mister Bones: Dinosaur Hunter: Lesson 3

Objectives:
• Recognize and sort regular long o: oa, ow words and words with three-letter consonant blends
• Spell and use words with long o: oa, ow in a silly sentence
• Build background to understand a story
• Preview selection words
• Identify the author and author's purpose of a story
• Identify the appropriate meaning of a multiple-meaning word in a text using clues and resources
• Review and use adjectives to describe size

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Lesson 14: Mister Bones: Dinosaur Hunter: Lesson 4

Objectives:
• Recognize high-frequency words
• Review long e: ea and inflected endings (spelling change: y to i)
• Apply decoding strategies: blend, preview words
• Spell words with long o: oa, ow
• Recognize text structure: nonfiction
• Read aloud fluently, attending to punctuation
• Identify adjectives for sizes

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Lesson 15: Mister Bones: Dinosaur Hunter: Lesson 5

Objectives:
• Spell words with long o: oa, ow
• Decode long o: oa, ow words and three-letter consonant blends
• Read high-frequency words
• Recognize author's purpose
• Retell a story

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Lesson 16: The Lady in the Moon: Lesson 1

Objectives:
• Substitute initial phonemes
• Blend, read, and build words with long i spelled ie and igh
• Spell words with long i: ie, igh
• Practice fluency with oral rereading
• Build background and oral vocabulary
• Distinguish realism and fantasy
• Identify adjectives for what kind

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Lesson 17: The Lady in the Moon: Lesson 2

Objectives:
• Listen to, blend, and count phonemes
• Blend, read, and sort words beginning with kn /n/ and wr /r/
• Write sentences with spelling words with long i: ie, igh
• Recognize and use high-frequency words
• Recall information about a holiday or special event
• Recognize adjectives for what kind
• Demonstrate speaking skills by stating an opinion

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Lesson 18: The Lady in the Moon: Lesson 3

Objectives:
• Blend, read, and sort words with long i: ie, igh and words with kn /n/ and wr /r/
• Spell words with long i: ie, igh
• Build background
• Learn selection words
• Recognize realism and fantasy
• Monitor comprehension and fix up difficulties in understanding by reading on
• Use adjectives for what kind in writing

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Lesson 19: The Lady in the Moon: Lesson 4

Objectives:
• Recognize high-frequency words
• Review long o: oa, ow and three-letter consonant blends
• Spell words with long i: ie and igh
• Recognize text structure: nonfiction
• Read aloud fluently with accuracy, rate, and expression
• Identify adjectives for what kind

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Lesson 20: The Lady in the Moon: Lesson 5

Objectives:
• Spell words with long i: ie, igh
• Decode long i: ie, igh and words with silent letters kn /n/ and wr /r/
• Read high-frequency words

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- Distinguish realism from fantasy
- Retell a story

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**Lesson 21: Peter's Chair: Lesson 1**

Objectives:
- Segment and count syllables
- Blend, read, and build compound words
- Spell compound words
- Practice fluency with oral rereading
- Build background and oral vocabulary
- Identify character, setting, and plot
- Identify adjectives for how many

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**Lesson 22: Peter's Chair: Lesson 2**

Objectives:
- Substitute initial phonemes
- Blend, read, and build words with vowels ew, ue, ui
- Spell compound words
- Recognize high-frequency words
- Identify adjectives for how many
- Speak to share a topic of interest

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**Lesson 23: Peter's Chair: Lesson 3**

Objectives:
- Blend, read, and sort compound words with vowels ew, ue, ui
- Spell compound words
- Build background
- Learn selection words
- Identify characters, setting, and plot
- Recognize story structure
- Use adjectives for how many in writing

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**Lesson 24: Peter's Chair: Lesson 4**

Objectives:
- Recognize high-frequency words
- Review long i: ie, igh and kn /n/, wr /r/
- Spell compound words
- Recognize text structure: nonfiction
- Read aloud fluently, attending to punctuation
- Identify adjectives for how many

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**Lesson 25: Peter's Chair: Lesson 5**

Objectives:
- Spell compound words
- Decode compound words and vowel patterns ew, ue, ui
- Read high-frequency words
- Recognize character, setting, and plot
- Retell a story

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**Lesson 26: Henry and Mudge and Mrs. Hopper's House: Lesson 1**

Appendix A.2.a Language Arts Course Guides

Language Arts 1 B
Objectives:
- Segment and count syllables
- Blend, read, and build words with suffixes -ly and -ful
- Spell words with suffixes -ly, -ful
- Build background and oral vocabulary
- Recognize cause and effect
- Identify adjectives that compare

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Lesson 27: Henry and Mudge and Mrs. Hopper's House: Lesson 2

Objectives:
- Blend and segment phonemes
- Blend, read, and build words with vowels oo as in moon
- Spell words with suffixes -ly and -ful
- Practice fluency with oral rereading
- Recognize high-frequency words
- Identify adjectives that compare
- Speak to communicate information

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Lesson 28: Henry and Mudge and Mrs. Hopper's House: Lesson 3

Objectives:
- Blend, read, and sort words with suffixes -ly and -ful and words with vowels oo as in moon
- Spell words with suffixes -ly and -ful
- Build background
- Learn selection words
- Recognize cause and effect
- Read aloud fluently while expressing characterization
- Use adjectives that compare in writing

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Lesson 29: Henry and Mudge and Mrs. Hopper's House: Lesson 4

Objectives:
- Review compound words and vowel patterns ew, ue, ui
- Spell words with suffixes -ly and -ful
- Respond to poems read aloud
- Recognize rhyme in poetry
- Read aloud fluently while expressing characterization
- Identify adjectives that compare

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Lesson 30: Treasures Unit Test

Unit 3: Great Ideas

In this unit, your student will explore the theme of great ideas. Your student will read fiction and nonfiction selections that explore this theme as he continues to learn essential skills for decoding and understanding text. He will continue to practice blending and segmenting phonemes and words. Phonics and spelling instruction focuses on diphthongs, such as ow, ou, oo, oi, oy, aw, and au. Your student will also learn about suffixes. Reading comprehension skills include understanding character, setting, and plot; drawing conclusions; understanding sequence; comparing and contrasting; and finding the main idea. Reading instruction also addresses fluency skills, such as reading accurately and with expression and using appropriate phrasing. Your student will continue to learn essential vocabulary development skills, such as understanding synonyms, homonyms, and words with multiple meanings. Additionally, your student will learn about pronouns and sentence types, including commands and exclamations. Writing instruction continues to develop your student's confidence in writing paragraph-length compositions. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:
• Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
• Read fiction and nonfiction selections that explore the theme of great ideas
• Apply reading comprehension skills and strategies before, during, and after reading
• Understand the characteristics of pronouns, commands, and exclamations
• Follow the steps of the writing process to respond to writing prompts, developing paragraph-length compositions in a variety of genres

Lesson 1: Tippy-Toe Chick, Go!: Lesson 1
Objectives:
• Substitute initial phonemes
• Blend, read, and build words with ow
• Spell words with the diphthong ow
• Practice fluency with oral rereading
• Build background and oral vocabulary
• Identify character, setting, and plot
• Identify commands

Lesson 2: Tippy-Toe Chick, Go!: Lesson 2
Objectives:
• Substitute initial phonemes
• Blend, read, and build words that end in a consonant plus le
• Apply knowledge of letter-sounds and word parts to decode unknown words when reading
• Spell words with the diphthong ow
• Recognize high-frequency words
• Identify commands
• Speak to communicate information

Lesson 3: Tippy-Toe Chick, Go!: Lesson 3
Objectives:
• Read, sort, and build words with vowel diphthong ow and words that end in a consonant plus –le
• Spell words with the diphthong ow /ou/
• Identify actions and motivations of characters
• Identify words and phrases that suggest feelings
• Identify setting and plot of a story
• Describe the characters and setting of a story through illustrations
• Use parts of a story to understand a selection

Lesson 4: Tippy-Toe Chick, Go!: Lesson 4
Objectives:
• Recognize high-frequency words
• Review vowels in moon and suffixes -ly and -ful
• Spell words with the vowel sound in how
• Read and respond to a fable
• Read aloud fluently at a natural rate and with accuracy and expression
• Identify commands

Lesson 5: Tippy-Toe Chick, Go!: Lesson 5
Objectives:
• Spell words with the vowel sound in how
• Decode vowel diphthong ow /ou/ and syllables C + le
• Read high-frequency words
• Recognize character, setting and plot
• Retell a story

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Lesson 6: Mole and the Baby Bird: Lesson 1

Objectives:
- Blend and segment phonemes
- Blend, read, and build words with ou
- Spell words with diphthong ou
- Practice fluency with oral rereading
- Build background and oral vocabulary
- Identify sequence of events
- Identify exclamations

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Lesson 7: Mole and the Baby Bird: Lesson 2

Objectives:
- Identify the vowel sound in the first syllable of a word
- Blend, read, and sort words by vowel sounds with VCV syllable patterns
- Spell words with diphthong ou and use each in a sentence
- Recognize high-frequency words and use each in a sentence
- Discuss and identify exclamations
- Identify words and phrases that suggest feelings or emotions
- Retell a movie or a play verbally

Lesson 8: Mole and the Baby Bird: Lesson 3

Objectives:
- Read and sort words with the diphthong ou and two-syllable words with the VCV syllable pattern
- Use clues to spell words with the diphthong ou /ou/
- Discuss and use exclamations is writing
- Identify the sequence of events when reading a story
- Retell a story including important events in the order they happened
- Demonstrate fluency with appropriate speed, accuracy, and expression when reading aloud
- Write a paragraph using words that show order

Lesson 9: Mole and the Baby Bird: Lesson 4

Objectives:
- Recognize high-frequency words
- Review diphthong ow and words with syllables C + le
- Spell words with the vowel sound in out
- Recognize text structure: letters
- Read aloud fluently at a natural rate and with accuracy and expression
- Identify exclamations

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Lesson 10: Mole and the Baby Bird: Lesson 5

Objectives:
- Spell words with diphthong ou
- Decode vowel diphthong ou /ou/ and syllables VCV
- Read high-frequency words
- Recognize sequence of events
- Retell a story

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Lesson 11: Dot & Jabber and the Great Acorn Mystery: Lesson 1

Objectives:
- Substitute initial phonemes
- Blend, read, and build words with oo as in book
- Spell words with the vowel sounds in book and moon
- Practice fluency with paired rereading
- Build background and oral vocabulary

Appendix A.2.a Language Arts Course Guides

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Lesson 12: Dot & Jabber and the Great Acorn Mystery: Lesson 2

Objectives:
• Add phonemes
• Blend, read, and sort words with inflected endings -s, -es, -ed, and -ing
• Spell words with the vowel sounds in book and moon
• Recognize high-frequency words
• Identify how sentences begin and end
• Speak to identify different kinds of media

Lesson 13: Dot & Jabber and the Great Acorn Mystery: Lesson 3

Objectives:
• Blend, read, and sort words with vowels oo as in book and words with inflected endings
• Spell words with the vowel sounds in book and moon
• Learn selection words
• Recognize comparisons and contrasts between two things
• Reread and review to monitor and fix up
• Read aloud fluently and express characterization
• Begin and end sentences correctly

Lesson 14: Dot & Jabber and the Great Acorn Mystery: Lesson 4

Objectives:
• Apply decoding strategies: blend, preview words
• Spell words with the vowel sound in book and moon
• Recognize text structure: nonfiction
• Read aloud fluently and express characterization
• Identify how sentences begin and end

Lesson 15: Dot & Jabber and the Great Acorn Mystery: Lesson 5

Objectives:
• Review vowels oo as in book and inflected endings
• Spell words with the vowel sounds in book and moon
• Decode vowels oo as in book and inflected endings -s, -es, -ed, -ing
• Read high-frequency words
• Read aloud with appropriate speed and accuracy
• Compare and contrast
• Retell a story

Lesson 16: Simple Machines: Lesson 1

Objectives:
• Substitute final phonemes
• Blend, read, and build words with oi and oy
• Spell words with diphthongs oi and oy
• Build background and oral vocabulary
• Identify main idea
• Identify pronouns

Lesson 17: Simple Machines: Lesson 2
Objectives:

- Segment and count syllables
- Blend, read, and sort words with suffixes -er and -or
- Spell words with diphthongs oi and oy
- Practice fluency with oral rereading
- Recognize high-frequency words
- Identify pronouns
- Substitute pronouns

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Lesson 18: Simple Machines: Lesson 3

Objectives:

- Blend, read, and sort words with vowel diphthongs oi and oy and suffixes -er and -or
- Spell words with the vowel sound in boy
- Learn selection words
- Recognize main ideas in a nonfiction selection
- Summarize a selection by retelling main ideas
- Read aloud fluently with appropriate phrasing
- Use pronouns in writing

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Lesson 19: Simple Machines: Lesson 4

Objectives:

- Use clues to identify high-frequency words
- Use decoding strategies to read and build words
- Write spelling words with diphthongs oi and oy
- Use text structure to understand nonfiction
- Make connections between texts
- Demonstrate fluency with appropriate phrasing when reading aloud
- Discuss and identify pronouns

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Lesson 20: Simple Machines: Lesson 5

Objectives:

- Spell words with the vowel sound in boy
- Decode vowel diphthongs oi, oy and suffixes -er, -or
- Read high-frequency words
- Recognize main idea
- Retell a story

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Lesson 21: Alexander Graham Bell: Lesson 1

Objectives:

- Segment and count phonemes
- Blend, read, and sort words with aw and au
- Spell words with vowels aw as in saw
- Practice fluency with repeated oral reading
- Build background and oral vocabulary
- Draw conclusions
- Identify I and me

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Lesson 22: Alexander Graham Bell: Lesson 2

Objectives:

- Read, build, blend, and segment words with short e spelled ea
- Spell words with aw as in saw and write each in a sentence
- Recognize and use high-frequency words
- Use illustrations and text to learn more about a story
- Discuss, identify, and correctly use the pronouns I and me

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Lesson 23: Alexander Graham Bell: Lesson 3

Objectives:
- Read and sort words with aw and au and words with short e: ea
- Write spelling words with the vowel sound in saw that rhyme
- List the steps of an activity
- Draw conclusions from text and illustrations
- Use text features to better understand a story
- Use the pronouns I and me in writing
- Use illustrations and text to learn more about a story

Lesson 24: Alexander Graham Bell: Lesson 4

Objectives:
- Review diphthongs oi, oy and suffixes -er and -or
- Spell words with the vowel sound in saw
- Recognize text structure: nonfiction
- Read aloud fluently at a natural rate and with accuracy and expression
- Identify I and me

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Lesson 25: Great Ideas Unit Test

Appendix A.2.a Language Arts Course Guides

Language Arts 1 B
LANGUAGE ARTS 2 A
Language Arts 2 A

The student will continue to develop into a fluent reader as he encounters increasingly complex texts. He will read daily, practicing new skills and understanding the phonics patterns. The student will apply new skills to read and understand fiction and nonfiction stories presented in Scott Foresman's Reading Street series. Stories are organized into themes such as “Exploration,” “Working Together,” and “Creative Ideas.” Examining literature through themes helps the student make connections between the texts and connect reading topics to his personal knowledge and interests. The student will also read short, decodable readers that are linked and printable from the student’s lesson page. Formal reading instruction includes all parts of the reading process, including phonics, vocabulary, comprehension, and fluency.

As the student learns to read, he also learns to write. Writing lessons target grammar skills and teach the writing process. Frequently, writing instruction is tied to the student’s reading assignments. Guided instruction and practice in Zaner-Bloser Handwriting reinforce manuscript printing and encourage greater speed and accuracy in writing. Daily spelling instruction and practice correlate with taught phonics skills. Language skills and handwriting come together as the student composes journal entries and writing pieces of increasing length and complexity. Students gain speaking and listening skills through questioning and the use of audio recording.

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Unit 1: Exploration

In this unit, your student will explore the theme of exploration in fiction and nonfiction reading selections, including a play. Your student will build on reading skills developed in first grade as he continues to learn new strategies for decoding and understanding text. Phonics and spelling instruction focuses on short vowels, words with long vowels in the CVCe pattern, consonant blends and digraphs, and inflected word endings. Comprehension skills include identifying the main idea and supporting details in a selection, understanding story elements such as character and setting, and distinguishing between realism and fantasy. Reading instruction also develops fluency skills, such as reading accurately and with expression, reading at an appropriate pace, and attending to punctuation while reading. Vocabulary instruction focuses on understanding figurative language, descriptive words, and synonyms. Additionally, your student will learn the basic parts of a sentence, subject and predicate, and learn about the four types of sentences—statements, questions, commands, and exclamations. He will apply this knowledge in regular writing assignments, including a plan for visiting a place and a report about his neighborhood. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:
- Apply decoding and context strategies to read unknown words
- Build reading vocabulary
- Read about exploring while applying comprehension strategies

Lesson 1: Iris and Walter: Lesson 1

Objectives:
- Associate short vowel sounds with the CVC, CCVC, CVCC spelling patterns
- Associate the sound /e/ with the letters ea
- Spell words with short vowels
- Practice fluency in oral rereading
- Build background and oral vocabulary
- Identify character and setting
- Identify sentences

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Lesson 2: Iris and Walter: Lesson 2

Objectives:
- Sort and read words with short vowels
Lesson 3: Iris and Walter: Lesson 3

Objectives:
- Sort, blend, and read VC/CV and VCC/V words
- Spell words with short vowels
- Recognize high-frequency words
- Discuss similes
- Read aloud with appropriate pace and rate
- Write a plan
- Use sentences in writing

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Lesson 4: Iris and Walter: Lesson 4

Objectives:
- Spell words with short vowels
- Respond to poems read aloud
- Recognize rhyme in poetry
- Read aloud with appropriate pace and rate
- Identify sentences
- Write a plan
- Speak to share ideas

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Lesson 5: Iris and Walter: Lesson 5

Objectives:
- Read high-frequency words
- Spell words with short vowels
- Decode words with short vowels
- Read aloud with appropriate speed and accuracy
- Recognize story characteristics
- Retell a story

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Lesson 6: Exploring Space with an Astronaut: Lesson 1

Objectives:
- Associate the long vowel sounds with the CVCe spelling patterns
- Blend, read, and build long vowel words
- Spell words with long vowels
- Use complete sentences and proper inflection
- Identify main idea and details
- Identify subjects
- Use context with letter-sounds and word parts to confirm the identification of unknown words

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Lesson 7: Exploring Space with an Astronaut: Lesson 2

Objectives:
- Spell and create words with long vowels
- Identify main idea and details
- Use text structure to understand a reading selection
- Use clues when reading to define vocabulary words

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• Identify high-frequency words
• Recognize main idea and details
• Recognize the subject of a sentence

Lesson 8: Exploring Space with an Astronaut: Lesson 3

Objectives:
• Build, blend, and read short vowel words
• Review short vowel words with the CVC, CCVC, CVCC spelling patterns
• Spell long vowel words
• Write phrases with position words
• Read aloud with accuracy
• Use subjects correctly in writing
• Write a list

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Lesson 9: Exploring Space with an Astronaut: Lesson 4

Objectives:
• Build oral vocabulary
• Spell words with long vowels CVCe
• Recognize text structure: nonfiction
• Read aloud with accuracy
• Identify subjects
• Write a list
• Speak to share ideas

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Lesson 10: Exploring Space with an Astronaut: Lesson 5

Objectives:
• Read high-frequency words
• Spell words with long vowels
• Decode long-vowel (CVCe) and c/s/, g/j/, and s/z/ words
• Read aloud with appropriate speed and accuracy
• Identify main idea and details
• Retell a story

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Lesson 11: Henry and Mudge and the Starry Night: Lesson 1

Objectives:
• Associate consonant sounds with consonant blends
• Blend, read, and build words with consonant blends
• Spell words with consonant blends
• Practice fluency in oral reading
• Build background and oral vocabulary
• Identify character and setting
• Identify predicates

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Lesson 12: Henry and Mudge and the Starry Night: Lesson 2

Objectives:
• Build words with consonant blends
• Recognize and spell high frequency words with consonant blends
• Use clarifying questions to identify information
• Describe how characters respond to a major event
• Identify the predicate of a sentence

Lesson 13: Henry and Mudge and the Starry Night: Lesson 3

Objectives:
• Build, blend, and read long vowel CVCe words
• Spell long vowel words
• Write sentences with synonyms
• Recognize and use good word choice in writing
• Write a story
• Use predicates correctly in writing

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Lesson 14: Henry and Mudge and the Starry Night: Lesson 4
Objectives:
• Review short vowels CVC, CVCC, and short e: ea
• Review long vowels CVCe
• Spell words with consonant blends
• Recognize text structure: nonfiction
• Read aloud with accuracy and appropriate pace
• Identify predicates
• Write a story

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Lesson 15: Henry and Mudge and the Starry Night: Lesson 5
Objectives:
• Spell words with consonant blends
• Decode words with consonant blends
• Read high-frequency words
• Read aloud with appropriate speed and accuracy
• Identify characters and setting
• Retell a story

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Lesson 16: A Walk in the Desert: Lesson 1
Objectives:
• Use structural clues to decode inflected endings with spelling changes
• Blend, read, and build inflected endings -s, -ed, -ing
• Spell base words with endings -ed, -ing
• Build background and oral vocabulary
• Exhibit appropriate listening behavior
• Identify main idea and details
• Identify statements and questions

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Lesson 17: A Walk in the Desert: Lesson 2
Objectives:
• Spell and create base words with endings -s, -ed, -ing
• Preview words in a reading selection
• Use clues when reading to define vocabulary words
• Use background information to understand a reading selection
• Recognize main idea and details
• Recognize statements and questions

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Lesson 18: A Walk in the Desert: Lesson 3
Objectives:
• Build, blend, and read words with consonant blends
• Spell base words and endings -ed, -ing
• Discuss descriptive words
• Use descriptive words in sentences
• Read aloud fluently, while attending to punctuation
• Write a report
• Use statements and questions in writing

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Lesson 19: A Walk in the Desert: Lesson 4

Objectives:
• Spell base words with endings –ed, –ing
• Recognize text structure: nonfiction
• Read aloud fluently while attending to punctuation
• Identify statements and questions
• Speak to communicate information
• Write a report
• Listen to be a polite listener

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Lesson 20: A Walk in the Desert: Lesson 5

Objectives:
• Spell base words with endings –ed, –ing
• Decode words with inflected endings –s, –ed, and –ing
• Read high-frequency words
• Read aloud with appropriate speed and accuracy
• Identify main idea and details
• Retell a story

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Lesson 21: The Strongest One: Lesson 1

Objectives:
• Associate consonant digraph sounds with their spelling patterns
• Blend, read, and sort words with consonant digraphs
• Spell words with consonant digraphs
• Build background and oral vocabulary
• Ask questions
• Distinguish realism and fantasy
• Identify commands and exclamations

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Lesson 22: The Strongest One: Lesson 2

Objectives:
• Read, blend, and group words with consonant digraphs
• Spell and write words with consonant digraphs in a sentence
• Determine differences between realism and fantasy
• Identify which character is speaking in a selection
• Use different voices when reading aloud
• Identify commands and exclamations in writing
• Build background knowledge to understand selection

Lesson 23: The Strongest One: Lesson 3

Objectives:
• Build, blend, and read base words and endings
• Spell words with consonant digraphs
• Identify synonyms
• Read with expression and intonation
• Write news
• Recognize and use good sentences in writing
• Use commands and exclamations in writing

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Lesson 24: The Strongest One: Lesson 4

Objectives:
• Spell words with consonant digraphs
• Recognize text structure: nonfiction
• Read with expression and intonation
Lesson 25: Exploration Unit Test

Unit 2: Working Together

In this unit, your student will explore the theme of how people work together. She will continue to read realistic fiction selections, in addition to other genres such as folk tales and fairy tales, as she builds on her skills for decoding and understanding text. Phonics and spelling instruction focuses on words with r-controlled vowels, contractions, plurals, and words with the long a sound. Comprehension skills include understanding sequence, identifying the author’s purpose, drawing conclusions, and distinguishing between realism and fantasy. Reading instruction also addresses fluency skills, such as reading accurately and with appropriate phrasing and expression and reading to show characterization. Vocabulary instruction develops your student's understanding of specific word categories, such as words that show position, direction, time, and sequence. Additionally, your student will review the characteristics of nouns, including proper nouns, singular and plural nouns, and possessive nouns. She will apply this knowledge in a variety of writing assignments, including a set of directions and an invitation submitted as part of her writing portfolio. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:

- Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
- Read fiction and nonfiction selections and distinguish among different varieties of fiction and nonfiction
- Apply reading comprehension skills and strategies before, during, and after reading
- Understand the characteristics of different types of nouns
- Follow the steps of the writing process to write responses to writing prompts

Lesson 1: Tara and Tiree, Fearless Friends: Lesson 1

Objectives:

- Blend, read, and build ar, or, and ore words
- Spell words with r-controlled ar, or, and ore words
- Build background and oral vocabulary
- Identify sequence
- Identify nouns

Lesson 2: Tara and Tiree, Fearless Friends: Lesson 2

Objectives:

- Sort and spell r-controlled ar, or, and ore words
- Recognize sequence
- Make predictions when reading
- Identify high-frequency words
- Identify and write nouns in a sentence

Lesson 3: Tara and Tiree, Fearless Friends: Lesson 3

Objectives:

- Recognize consonant digraphs ch, tch, sh, th, wh words
- Identify high-frequency words
- Use prepositional words that demonstrate position and direction in sentences
- Demonstrate appropriate pace, fluency, and accuracy when reading
- Demonstrate understanding of organization/paragraphs when writing
- Write directions for something you do or make
- Use nouns in a sentence
Lesson 4: Tara and Tiree, Fearless Friends: Lesson 4

Objectives:
- Read and write words with /är/ and /ôr/
- Use text structure to understand: nonfiction
- Create a visual display to clarify ideas
- Demonstrate appropriate pace, fluency, and accuracy when reading
- Recognize nouns
- Demonstrate speaking and listening skills to understand a story
- Compare and contrast

Lesson 5: Tara and Tiree, Fearless Friends: Lesson 5

Objectives:
- Spell words with r-controlled ar, or, and ore
- Decode r-controlled ar, or, and ore words
- Read high-frequency words
- Recognize story sequence
- Retell a story

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Lesson 6: Ronald Morgan Goes to Bat: Lesson 1

Objectives:
- Blend, read, and build contractions
- Spell contractions
- Use context with letter-sounds and word parts to confirm the identification of unknown words
- Practice fluency in oral rereading
- Build background and oral vocabulary
- Distinguish between realism and fantasy
- Identify proper nouns

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Lesson 7: Ronald Morgan Goes to Bat: Lesson 2

Objectives:
- Create and spell contractions
- Recognize differences between realism and fantasy
- Make predictions using prior knowledge
- Use images to better understand text
- Collaborate when conducting research
- Identify high-frequency words
- Recognize proper nouns

Lesson 8: Ronald Morgan Goes to Bat: Lesson 3

Objectives:
- Blend, read, and build words with r-controlled vowels
- Spell words with contractions
- Use descriptive words in sentences
- Read aloud fluently with accuracy and appropriate pace
- Write a list
- Use proper nouns in writing
- Use common nouns

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Lesson 9: Ronald Morgan Goes to Bat: Lesson 4

Objectives:
- Read and write contractions
- Answer questions about poems read aloud
- Demonstrate fluency with expression and attend to punctuation when reading
- Describe how rhyming words in a poem add rhythm and meaning

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Lesson 10: Ronald Morgan Goes to Bat: Lesson 5

Objectives:
- Spell contractions
- Decode contractions n't, 's, 'll, 'm
- Read high-frequency words
- Distinguish realism from fantasy
- Retell a story

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Lesson 11: Turtle's Race with Beaver: Lesson 1

Objectives:
- Associate the sound /er/ with the er, ir, and ur spelling patterns
- Blend, read, and build er, ir, and ur words
- Spell words with r-controlled er, ir, and ur
- Build background and oral vocabulary
- Identify sequence
- Identify singular and plural nouns

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Lesson 12: Turtle's Race with Beaver: Lesson 2

Objectives:
- Sort r-controlled er, ir, and ur words
- Spell r-controlled er, ir, and ur words
- Summarize
- Build background
- Recognize high-frequency words
- Recognize sequence
- Identify singular and plural nouns

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Lesson 13: Turtle's Race with Beaver: Lesson 3

Objectives:
- Build, blend, and read contractions n't, 's, 'll, 'm
- Spell r-controlled er, ir, and ur words
- Use time and order words for sequence in sentences
- Read aloud fluently while expressing characterization
- Recognize and use organization/paragraphs in writing
- Write a plan
- Use singular and plural nouns in writing

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Lesson 14: Turtle's Race with Beaver: Lesson 4

Objectives:
- Read and write words with er, ir, ur
- Use text structure to understand nonfiction
- Compare and contrast key points of two texts
- Create an audio recording of a story
- Create a visual display to demonstrate new and prior knowledge
- Demonstrate speaking and listening skills to communicate and understand directions
- Write a plan for doing something special for a friend

Lesson 15: Turtle's Race with Beaver: Lesson 5

Objectives:
- Spell er, ir, ur words
• Decode r-controlled er, ir, ur
• Read high-frequency words
• Recognize story sequence
• Retell a story

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Lesson 16: The Bremen Town Musicians: Lesson 1

Objectives:
• Blend, read, and build plurals –s, –es, –ies
• Spell plurals with –s, –es, –ies
• Practice fluency in oral rereading
• Build background and oral vocabulary
• Identify author's purpose
• Identify plural nouns that change spelling

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Lesson 17: The Bremen Town Musicians: Lesson 2

Objectives:
• Read, identify, and spell words with plurals –s, –es, –ies
• Recognize author's purpose
• Identify details that support the author's purpose
• Analyze story structure including character, setting, and plot
• Recognize plural nouns that change spelling

Lesson 18: The Bremen Town Musicians: Lesson 3

Objectives:
• Blend, read, and sort r-controlled er, ir, ur words
• Spell r-controlled er, ir, ur words
• Use homophones in sentences
• Read aloud fluently with appropriate phrasing
• Recognize and use organization/paragraphs in writing
• Use plural nouns that change spelling in writing

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Lesson 19: The Bremen Town Musicians: Lesson 4

Objectives:
• Spell plural words ending in –s, –es, –ies
• Use text structure to understand nonfiction
• Demonstrate fluency with appropriate phrasing while reading aloud
• Compare and contrast two versions of the same story
• Recognize plural nouns that change spelling
• Create a poster about a show

Lesson 20: The Bremen Town Musicians: Lesson 5

Objectives:
• Spell plural words ending ins with –s, –es, –ies
• Read plural and high-frequency words
• Identify the author's purpose of a reading selection
• Compare and contrast two versions of the same story
• Retell a story with accuracy

Lesson 21: A Turkey for Thanksgiving: Lesson 1

Objectives:
• Read, create, and spell ai and ay words
• Identify unknown words using letter-sounds and word parts
• Increase background knowledge and oral vocabulary
• Draw conclusions when reading
• Recognize possessive nouns in a sentence
• Collaborate to brainstorm ideas
Lesson 22: A Turkey for Thanksgiving: Lesson 2

Objectives:
- Identify long a words
- Spell long a words with long a: a, ai, ay
- Draw conclusions when reading
- Use different voices for different characters when reading aloud
- Visualize to understand text
- Recognize possessive nouns in a sentence
- Recount an experience

Lesson 23: A Turkey for Thanksgiving: Lesson 3

Objectives:
- Read and create plural words with plurals –s, –es, –ies
- Describe how a character responds to an event
- Spell words with long a: ai, ay words
- Use similes in sentences when writing
- When reading silently, use fluency
- Use possessive nouns when writing
- Demonstrate knowledge of a language and its conventions

Lesson 24: A Turkey for Thanksgiving: Lesson 4

Objectives:
- Spell words with long a: a, ai, ay
- Recognize text structure: nonfiction
- Identify possessive nouns
- Speak to make introductions

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Lesson 25: Working Together Unit Test

Unit 3: Creative Ideas

In this unit, your student will explore the theme of how creative ideas can make a difference. He will read a variety of fiction and nonfiction selections, including realistic fiction, fantasy stories, and a biography. Your student will continue to practice essential skills for decoding and understanding text. Phonics and spelling instruction focuses on words with the long vowel sounds of e, o, and i, compound words, and words with the comparative endings –er and –est. Comprehension skills include understanding the author’s purpose, recognizing cause-and-effect relationships, drawing conclusions, and understanding story elements such as plot and theme. Reading instruction also addresses fluency skills, such as reading with appropriate phrasing and expression. Vocabulary development continues to address different categories of words, such as antonyms, synonyms, words from other languages, and shortened forms of words. Additionally, your student will review the characteristics of verbs, including singular and plural verbs, different verb tenses, and forms of the verb to be. He will apply this knowledge in fun and creative writing assignments, including a letter of advice and a poster submitted as part of his writing portfolio. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:
- Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
- Read fiction and nonfiction selections and distinguish among different varieties of fiction and nonfiction
- Apply reading comprehension skills and strategies before, during, and after reading
- Understand the characteristics of different types of verbs
- Follow the steps of the writing process to write responses to writing prompts

Lesson 1: Pearl and Wagner: Two Good Friends: Lesson 1

Objectives:
- Associate the sound /e/ with the e, ee, ea, and y spelling patterns
- Blend, read, and build e, ee, ea, and y words
- Spell words with long e: ee, ea, y
• Use context with letter-sounds and word parts to confirm the identification of unknown words
• Build background and oral vocabulary
• Identify author's purpose
• Identify verbs

Lesson 2: Pearl and Wagner: Two Good Friends: Lesson 2

Objectives:
• Sort long e: ee, ea, and y words
• Spell long e: e, ee, ea, and y words
• Recognize author's purpose
• Identify story structure
• Recognize high-frequency words
• Identify verbs

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Lesson 3: Pearl and Wagner: Two Good Friends: Lesson 3

Objectives:
• Read and create ai and ay words
• Spell long e words: ee, ea, y words
• Identify antonyms and write sentences using those words and write a sentence for each word
• Make connections
• Write a plan for making a robot
• Demonstrate understanding of verbs when writing
• Demonstrate knowledge of language and its conventions

Lesson 4: Pearl and Wagner: Two Good Friends: Lesson 4

Objectives:
• Spell words with long e: ee, ea, y
• Recognize text structure: nonfiction
• Read aloud fluently with expression/intonation
• Identify verbs
• Write a plan
• Use speaking and listening skills to solve a problem

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Lesson 5: Pearl and Wagner: Two Good Friends: Lesson 5

Objectives:
• Decode words with long e: e, ee, ea, y; syllables VCV
• Spell ee, ea, y words
• Read high-frequency words
• Recognize author's purpose
• Retell a story

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Lesson 6: Dear Juno: Lesson 1

Objectives:
• Associate the sound /o/ with the o, oa, and ow spelling patterns
• Apply knowledge of letter-sounds and word parts to decode unknown words when reading
• Spell words with long o: o, oa, ow
• Build background and oral vocabulary
• Draw conclusions
• Identify verbs with singular and plural nouns

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Lesson 7: Dear Juno: Lesson 2

Objectives:
Lesson 8: Dear Juno: Lesson 3

Objectives:
- Build, blend, and read ee, ea, and y words
- Spell long o: o, oa, ow words
- Discuss shortened forms of words
- Read aloud fluently with accuracy/appropriate pace
- Write a list
- Use verbs with singular and plural nouns

Lesson 9: Dear Juno: Lesson 4

Objectives:
- Spell words with long o: o, oa, ow
- Recognize text structure: nonfiction
- Read aloud fluently with accuracy and appropriate pace
- Identify verbs with singular and plural nouns
- Write a list
- Retell a story that was read

Lesson 10: Dear Juno: Lesson 5

Objectives:
- Spell o, oa, ow words
- Decode long o, syllables VCV
- Read high-frequency words
- Draw conclusions
- Retell a story

Lesson 11: Anansi Goes Fishing: Lesson 1

Objectives:
- Blend, read, and sort compound words
- Spell compound words
- Practice fluency in oral rereading
- Build background and oral vocabulary
- Recognize cause and effect
- Identify verbs for past, present, and future

Lesson 12: Anansi Goes Fishing: Lesson 2

Objectives:
- Sort compound words into first and second words
- Spell compound words correctly when writing dictation sentences
- Recognize high-frequency words when reading
- Identify cause and effect when reading
- Use images to better understand text
- Recognize verbs for the past, present, and future in sentences
- Preview words before reading them from a reading selection
Lesson 13: Anansi Goes Fishing: Lesson 3

Objectives:
• Review long o: o, oa, and ow
• Recognize high-frequency words
• Spell compound words
• Think of antonyms for words
• Recognize and use sentences in writing
• Write advice
• Use verbs for past, present, and future in writing

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Lesson 14: Anansi Goes Fishing: Lesson 4

Objectives:
• Spell compound words
• Respond to poems read aloud
• Recognize theme in poetry
• Read aloud fluently, expressing characterization
• Write advice
• Identify verbs for present, past, and future

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Lesson 15: Anansi Goes Fishing: Lesson 5

Objectives:
• Spell compound words
• Decode compound words
• Read high-frequency words
• Recognize cause and effect
• Retell a story

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Lesson 16: Rosa and Blanca: Lesson 1

Objectives:
• Associate the sound /i/ with the i, ie, igh, and y spelling patterns
• Blend, read, and sort i, ie, igh, and y words
• Spell words with long i: i, igh, y
• Build background and oral vocabulary
• Identify theme and plot
• Identify verbs for past, present, future

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Lesson 17: Rosa and Blanca: Lesson 2

Objectives:
• Identify and sort long i words: i, ie, y, and igh words
• Spell long i words: i, ie, y, and igh words
• Make predictions when reading
• Recognize high-frequency words in a reading selection
• Identify theme and plot of a story
• Identify more verbs for the past, present, and future in a sentence
• Express opinions and supporting reasons

Lesson 18: Rosa and Blanca: Lesson 3

Objectives:
• Sort, blend, and read compound words
• Spell long i: i, y, igh words
• Discuss meanings of words from other languages
• Read aloud fluently, attending to punctuation
• Recognize and use good word choice in writing
• Write an ad

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Lesson 19: Rosa and Blanca: Lesson 4

Objectives:
- Spell words with long i: i, igh, y
- Recognize plot in a fable
- Read aloud fluently with appropriate phrasing and grouping
- Identify verbs
- Write an ad
- Recite a poem, song, or story from memory

Lesson 20: Rosa and Blanca: Lesson 5

Objectives:
- Spell i, igh, y words
- Decode long i: i, ie, igh, y
- Read high-frequency words
- Recognize theme and plot
- Retell a story

Lesson 21: A Weed Is a Flower: Lesson 1

Objectives:
- Use structural cues to decode words with comparative endings –er, –est
- Spell words with comparative endings –er, –est
- Practice fluency in oral rereading
- Build background and oral vocabulary
- Recognize cause and effect
- Identify am, is, are, was, were

Lesson 22: A Weed Is a Flower: Lesson 2

Objectives:
- Read and sort words with comparative endings –er, –est
- Recognize cause and effect relationships
- Use the monitor and fix up strategy skim and scan
- Recognize high-frequency words
- Identify the verbs am, is, are, was, were

Lesson 23: A Weed Is a Flower: Lesson 3

Objectives:
- Read and create long i: i, ie, igh, y words
- Spell words ending in –er and –est
- Write a list of synonyms
- Demonstrate fluency with expression and intonation when reading out loud
- Demonstrate understanding of focus/ideas when writing
- Create a digital poster
- Write sentences that include the helping verbs am, is, are, was, and were

Lesson 24: A Weed Is a Flower: Lesson 4
Lesson 25: Creative Ideas Unit Test

Unit 4: Frog and Toad Are Friends

In this unit, students will read the book *Frog and Toad Are Friends* by Arnold Lobel. This beloved book tells the story of two best friends in five chapters. Students have the opportunity to learn new vocabulary words as well as review knowledge of contractions and words with r-controlled vowels. Students connect to the book on a personal level by writing about friendship, participating in each stage of the writing process. By the end of this unit, students will have added to their understanding of comprehension strategies such as sequence and identifying the beginning, middle, and end of a story.

Objectives:
- Identify, build, and use contractions
- Learn and use new vocabulary words
- Apply reading strategies to understand and relate to text
- Complete each part of the writing process to write a story about a friend
- Read fluently with accuracy

Lesson 1: Frog and Toad Are Friends: Lesson 1

Objectives:
- Build background and prior knowledge about friendships
- Review the sounds of r-controlled vowels
- Blend, read, and build words with r-controlled vowels
- Read, review, and spell contractions
- Learn new vocabulary words
- Recognize story sequence
- Brainstorm a list of activities to do with a friend

Lesson 2: Frog and Toad Are Friends: Lesson 2

Objectives:
- Share prior knowledge and ideas about friendship
- Sort words with r-controlled vowels
- Review contractions by naming the missing letter or letters in a contraction
- Identify nouns in vocabulary words
- Read aloud fluently with appropriate speed and accuracy
- Retell a story
- Organize ideas in preparation for writing

Lesson 3: Frog and Toad Are Friends: Lesson 3

Objectives:
- Classify and produce words with r-controlled vowels
- Blend, read, and build words with r-controlled vowels
- Review contractions and build new contractions with ’ll and n’t
- Alphabetize vocabulary words and use them in a sentence
- Read aloud with appropriate speed and accuracy
- Recall story details
- Write a story

Lesson 4: Frog and Toad Are Friends: Lesson 4

Objectives:
- Listen for words with r-controlled vowels
- Preview story to find words with r-controlled vowels
- Recognize and explain contractions
- Review vocabulary words
- Read aloud fluently with appropriate speed and accuracy
- Make personal connections to story characters
Lesson 5: Frog and Toad Are Friends: Lesson 5

Objectives:
- Discuss words with r-controlled vowels
- Decode words with r-controlled vowels
- Spell contractions
- Read and understand unit vocabulary words
- Compare and contrast stories
- Write and illustrate a final draft
LANGUAGE ARTS 2 B
Language Arts 2 B

The developing reader will blossom into an increasingly fluent reader throughout this course. The student will read and write daily, practice new skills, and uncover the patterns that are the foundations of words, sentences, and stories. The student will apply new skills to read and understand fiction and nonfiction stories presented in Scott Foresman’s *Reading Street* series. Stories are organized into themes such as “Traditions” and “Responsibility.” Examining literature through themes helps the student to make connections between texts and to connect reading topics to personal knowledge and interests. Reading instruction includes phonics, spelling, vocabulary, comprehension, and fluency. The student will also read short, decodable readers that are linked and printable from the student’s lesson page. In addition to formal reading instruction, the student will have the opportunity to complete engaging extension activities.

As the student becomes a better reader, he will also learn to write. The student’s vocabulary will grow through discussions of ideas and opinions with the Learning Coach. Listening and speaking will help the student learn grammar skills and correct sentence and story construction. Guided instruction and practice in Zaner-Bloser *Handwriting* will teach the student proper manuscript technique. Spelling instruction correlates to the phonics skills taught through the student’s stories. Language skills and handwriting come together as the student composes journal entries and writes pieces of increasing length and complexity. Students gain speaking and listening skills through questioning and the use of audio recording.

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**Unit 1: Our Changing World**

In this unit, your student will explore the theme of change through reading selections as he continues to learn about different varieties of fiction and nonfiction. Your student will learn and practice essential skills for decoding and understanding text. Phonics and spelling instruction focuses on words that end with a consonant and *le* and words with the vowels *oo, u, ou, ow, oi, oy, oo, ue, ew,* and *ui.* Students will also review consonants, short vowels, and inflected endings for base words. Comprehension skills include comparing and contrasting, distinguishing between fact and opinion, and understanding story elements such as plot and theme. Reading instruction also addresses fluency skills, such as reading accurately and with appropriate phrasing and expression, and vocabulary development, such as using context clues. Additionally, your student will learn the characteristics of adjectives, including adjectives that compare; adjectives for number, size, and shape; and adjectives that tell *how, when,* and *where.* He will apply this knowledge in challenging and creative writing assignments, including a song and a news report. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:
- Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
- Read fiction and nonfiction selections and distinguish among different varieties of fiction and nonfiction
- Apply reading comprehension skills and strategies before, during, and after reading
- Understand the characteristics of different types of adjectives
- Follow the steps of the writing process to write responses to writing prompts

**Lesson 1: The Quilt Story: Lesson 1**

Objectives:
- Blend, read, and build words with syllables: consonant + *le*
- Spell words with consonant + *le*
- Practice fluency with oral rereading
- Compare and contrast
- Identify story structure
- Identify adjectives

**Lesson 2: The Quilt Story: Lesson 2**
Objectives:
• Sort words with two syllables: consonant + le
• Build background
• Use word structure to determine the meaning of unfamiliar words
• Compare and contrast
• Identify story structure
• Identify adjectives

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Lesson 3: The Quilt Story: Lesson 3

Objectives:
• Read and write –er and –est words
• Spell two-syllable words that contain consonant + le
• Use multiple-meaning when writing
• Demonstrate understanding of adjectives when writing
• Make connections between events
• Identify and use careful word choice in writing
• Write a riddle with clues about special things

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Lesson 4: The Quilt Story: Lesson 4

Objectives:
• Spell two-syllable words ending with consonant + le
• Recognize text structure: nonfiction
• Read with accuracy and appropriate pace/rate
• Identify adjectives
• Speak to identify information
• Write a riddle
• View a photo to gather information about a topic

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Lesson 5: The Quilt Story: Lesson 5

Objectives:
• Spell two-syllable words ending with consonant + le
• Decode syllables C + le
• Read lesson vocabulary words
• Compare and contrast
• Retell a story

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Lesson 6: Life Cycle of a Pumpkin: Lesson 1

Objectives:
• Associate the sound of /o/ with the oo and u spelling patterns
• Blend, read, and build oo and u words
• Spell words with vowels oo and u
• Identify fact and opinion
• Ask questions
• Identify adjectives for number, size, and shape

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Lesson 7: Life Cycle of a Pumpkin: Lesson 2

Objectives:
• Demonstrate understanding of words with vowels oo and u
• Spell words with vowels oo and u when dictating a sentence
• Use context clues to identify unfamiliar words
• Identify key details of a text
• Recognize fact and opinion when reading
• Ask questions when reading
• Identify adjectives for number, size, and shape when writing or reading

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Lesson 8: Life Cycle of a Pumpkin: Lesson 3

Objectives:
• Review syllables: Consonant + le
• Blend, read, and build two-syllable words
• Spell words with vowels oo, u
• Use antonyms in sentences
• Self-correct when reading
• Write a review
• Use adjectives for number, size, and shape in writing

Lesson 9: Life Cycle of a Pumpkin: Lesson 4

Objectives:
• Read and write words with /u/
• Answer questions about poems read aloud
• Identify rhythm and rhyme when reading poetry
• Write a food review
• Describe key ideas
• Create a visual display to clarify ideas
• Recognize adjectives for number, size, and shape in a text

Lesson 10: Life Cycle of a Pumpkin: Lesson 5

Objectives:
• Spell word with oo and u
• Decode vowels oo, u
• Read lesson vocabulary words
• Recognize statements of fact and opinion
• Retell a story

Lesson 11: Frogs: Lesson 1

Objectives:
• Associate the sound /ou/ with the ou and ow spelling patterns
• Blend, read, and sort ou and ow words
• Spell words with vowel diphthongs ou and ow /ou/
• Practice fluency with oral rereading
• Compare and contrast
• Use a graphic organizer
• Identify adjectives that compare

Lesson 12: Frogs: Lesson 2

Objectives:
• Build words with vowel diphthongs ou and ow /ou/
• Build background
• Learn lesson vocabulary
• Use word structure to determine the meaning of unfamiliar words
• Compare and contrast
• Identify adjectives that compare

Lesson 13: Frogs: Lesson 3

Objectives:
• Blend, read, and build oo and u words
• Spell words with vowel diphthongs ou, ow /ou/
• Discuss suffixes: words that end in –ful
• Use words with suffixes in sentences
• Recognize and use conventions in writing
• Write a song
• Use adjectives that compare in writing

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Lesson 14: Frogs: Lesson 4

Objectives:
• Spell words with /ou/
• Recognize text structure: nonfiction
• Read aloud with appropriate phrasing
• Identify adjectives that compare
• Speak to communicate or explain the steps of a process
• Write a song
• Listen to learn how to complete a task

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Lesson 15: Frogs: Lesson 5

Objectives:
• Spell words with ou and ow
• Decode diphthongs ou, ow /ou/
• Read lesson vocabulary words
• Compare and contrast
• Retell a story

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Lesson 16: I Like Where I Am: Lesson 1

Objectives:
• Associate the sound /oi/ with the letters oi and oy
• Blend, read, and build oi and oy words
• Spell words with diphthongs oi and oy /oi/
• Practice fluency in oral rereading
• Recognize theme and plot
• Summarize
• Identify adverbs that tell when and where

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Lesson 17: I Like Where I Am: Lesson 2

Objectives:
• Sort and use oy /oi/ words when writing
• Use and identify adverbs that tell when and where
• Build background knowledge to better understand a text
• Use different voices for different characters when reading aloud
• Demonstrate understanding of context clues to determine the meaning of multiple-meaning words
• Recognize theme and plot in a reading selection
• Identify repetition in a poem

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Lesson 18: I Like Where I Am: Lesson 3

Objectives:
• Blend, read, and sort ou, ow /ou/ words
• Spell words with diphthongs oi, oy
• Use synonyms in sentences
• Read aloud fluently and express characterization
• Recognize and use conventions in writing
• Write a poem
• Use adverbs that tell when and where in writing

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Lesson 19: I Like Where I Am: Lesson 4

Objectives:
• Read and spell words with /oi/
• Recognize e-mail and friendly letter text structure
• Compare and contrast key events in two texts
• Create a visual display to clarify ideas
• Write a poem based on change from your life
• Demonstrate oral communication

Lesson 20: I Like Where I Am: Lesson 5

Objectives:
• Spell words with oi and oy
• Decode diphthongs oi, oy
• Read lesson vocabulary words
• Recognize plot and theme
• Retell a story

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Lesson 21: Helen Keller and the Big Storm: Lesson 1

Objectives:
• Associate the sound /ü/ with the letters oo, ue, ew, and ui
• Blend, read, and build oo, ue, ew, and ui words
• Spell words with vowels oo, ue, ew, and ui
• Practice fluency with oral rereading
• Identify fact and opinion
• Ask questions
• Identify adverbs that tell how

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Lesson 22: Helen Keller and the Big Storm: Lesson 2

Objectives:
• Build words with vowels oo, ue, ew, and ui
• Build background
• Learn lesson vocabulary
• Use context clues to determine the meaning of multiple-meaning words
• Write statements of likes and dislikes
• Identify fact and opinion
• Identify adverbs that tell how

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Lesson 23: Helen Keller and the Big Storm: Lesson 3

Objectives:
• Blend, read, and build oi, oy /oi/ words
• Spell words with vowel patterns oo, ue, ew, ui
• Use homographs in sentences
• Read aloud fluently with expression and intonation
• Recognize and use focus/ideas in writing
• Write news
• Use adverbs that tell how in writing

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Lesson 24: Helen Keller and the Big Storm: Lesson 4

Objectives:
• Spell words with /ü/
• Recognize text structure: nonfiction
• Read aloud fluently with expression and intonation
• Identify adverbs that tell how
Lesson 25: Our Changing World Unit Test

Unit 2: Amelia Bedelia and the Cat

In this unit, your student will enjoy the antics of housekeeper Amelia Bedelia. The main character gets herself into all kinds of trouble as she takes figures of speech literally. Your student will learn about idioms and their hidden meanings. While reading portions of the book each day, your student will apply knowledge of letter-sounds and high-frequency words. She will also practice using homophones correctly. Finally, she will participate in each part of the writing process by writing a detailed paragraph about a pet.

Objectives:
• Decode words with the sound /ou/ in printed text
• Understand and use homophones correctly in sentences
• Describe idioms and their meanings
• Retell and relate to a story
• Write a paragraph with a main idea and supporting details

Lesson 1: Amelia Bedelia and the Cat: Lesson 1

Objectives:
• Build background and prior knowledge
• Review long vowel diphthong /ou/ spelled ou and ow
• Discuss and spell homophones
• Introduce and define idioms
• Read aloud fluently with appropriate accuracy and pace, infer meaning, make predictions
• Brainstorm a list of pets

Lesson 2: Amelia Bedelia and the Cat: Lesson 2

Objectives:
• Identify prior knowledge and recall story details
• Build words with the /ou/ sound in house
• Review definition of homophones and interpret homophones
• Read and interpret idioms
• Check predictions and recall story details
• Read with accuracy and expression
• Use a graphic organizer to describe a main idea and supporting details

Lesson 3: Amelia Bedelia and the Cat: Lesson 3

Objectives:
• Review vowel diphthong /ou/
• Understand homophone meanings and relate to everyday contexts
• Act out idioms from the story
• Identify idioms in the text and read with expression and appropriate speed
• Write the first draft of a paragraph with a main idea and supporting details

Lesson 4: Amelia Bedelia and the Cat: Lesson 4

Objectives:
• Connect the reader to the text and build background
• Make a board game with /ou/ words
• Use homophones correctly in a sentence
• Use visual cues to represent idioms
• Make predictions, interpret meanings of passages, and read fluently
• Review capitals, punctuation, and the naming and telling parts of a sentence to edit the first draft

Lesson 5: Amelia Bedelia and the Cat: Lesson 5

Objectives:
• Extend thinking about idioms
• Read sentences with /ou/ words
• Spell homophones in context
• Identify and interpret idioms
• Read with appropriate speed and fluency, interpret passages, and cite opinions
• Write final draft of paragraph with main idea and supporting details and design a cover

Unit 3: Responsibility

In this unit, your student will learn about what it means to be responsible as he reads a variety of selections, including narrative nonfiction as well as informational texts and realistic fiction. Your student will continue to build his skills in decoding and understanding text. Phonics and spelling instruction focuses on prefixes and suffixes, silent consonants, consonant blends ph and gh, and the vowel sounds of aw, au, augh, and al. Comprehension skills include identifying main idea and details, understanding sequence and author’s purpose, understanding story elements such as plot and theme, and distinguishing between realism and fantasy. Reading instruction also addresses fluency skills, such as reading accurately, reading with expression, and reading to show characterization. Additionally, students practice vocabulary development strategies such as identifying prefixes and suffixes and using context clues. Your student will learn the characteristics of pronouns and contractions. He will apply this knowledge in a variety of writing assignments, including a report and signs submitted as part of his writing portfolio. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:
• Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
• Read fiction and nonfiction selections and distinguish among different varieties of fiction and nonfiction
• Apply reading comprehension skills and strategies before, during, and after reading
• Understand the characteristics of pronouns and contractions
• Follow the steps of the writing process to write responses to writing prompts

Lesson 1: Firefighter!: Lesson 1

Objectives:
• Read and correct words with suffixes –ly, –ful, –er, –or
• Spell words ending with the with suffixes –ly, –ful, –er, –or
• Read a selection to demonstrate fluency with oral rereading
• Increase oral vocabulary
• Identify the main idea and supporting details of a story
• Demonstrate understanding of chronological order and sequence
• Write a research report

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Lesson 2: Firefighter!: Lesson 2

Objectives:
• Read and sort words with suffixes –ly, –ful, –er, –or
• Learn lesson vocabulary
• Use word structure (suffix –ly) to determine the meaning of unfamiliar words
• Recognize the main idea and supporting details
• Identify pronouns
• Use pronouns

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Lesson 3: Firefighter!: Lesson 3

Objectives:
• Read and group oo, ue, ew, ui words
• Spell words that end in –ly, –ful, –er, –or
• Use words ending in -ly in sentences
• Use self-correcting strategies when reading
• Recognize and use good word choice in writing

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• Write a report about an important community job
• Demonstrate knowledge of language and its conventions

Lesson 4: Firefighter!: Lesson 4
Objectives:
• Spell words with suffixes –ly, –ful, –er, –or
• Recognize plot in a play
• Read silently with fluency and accuracy
• Write a report
• Identify pronouns

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Lesson 5: Firefighter!: Lesson 5
Objectives:
• Spell words with suffixes –ly, –ful, –er, –or
• Decode suffixes –ly, –ful, –er, –or
• Read lesson vocabulary
• Read aloud with appropriate speed and accuracy
• Recognize main idea and supporting details
• Retell a story

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Lesson 6: One Dark Night: Lesson 1
Objectives:
• Blend, read, and build words with prefixes un–, re–, pre–, dis–
• Spell words with prefixes un–, re–, pre–, dis–
• Recognize sequence
• Use graphic organizers
• Identify pronouns for one or more than one
• Use context with letter-sounds and word parts to confirm the identification of unknown words

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Lesson 7: One Dark Night: Lesson 2
Objectives:
• Sort and read words with prefixes un–, re–, pre–, dis–
• Build background
• Learn lesson vocabulary
• Use context clues to determine the meaning of unfamiliar words
• Recognize sequence
• Identify pronouns for one and more than one

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Lesson 8: One Dark Night: Lesson 3
Objectives:
• Build, blend, and read –ly, –ful, –er, –or words
• Recognize lesson vocabulary
• Spell words with prefixes un–, re–, pre–, dis–
• Classify/categorize words from the story
• Read aloud fluently with accuracy and appropriate pace(rate)
• Write reasons
• Use pronouns for one and more than one in writing

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Lesson 9: One Dark Night: Lesson 4
Objectives:
• Spell words beginning with prefixes un–, re–, pre–, dis–
• Answer questions about poems read aloud
• Identify characters in a poem
• Demonstrate a clear and accurate phone message
• Describe key ideas
• Use pronouns for one and more than one when writing
• Write reasons for something a person should do

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Lesson 10: One Dark Night: Lesson 5

Objectives:
• Spell words with prefixes un–, re–, pre–, dis–
• Decode words with prefixes un–, re–, pre–, dis–
• Read lesson vocabulary
• Recognize story sequence
• Retell a story

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Lesson 11: Bad Dog, Dodger!: Lesson 1

Objectives:
• Blend, read, and build kn, wr, gn, and mb words
• Spell words with silent consonants kn, wr, gn, and mb
• Use context with letter-sounds and word parts to confirm the identification of unknown words
• Recognize plot and theme
• Use prior knowledge
• Write rules
• Identify pronouns I and me

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Lesson 12: Bad Dog, Dodger!: Lesson 2

Objectives:
• Read and create words with ph and gh
• Spell words with ph, gh when dictating sentences
• Build background knowledge to understand text
• Learn lesson vocabulary to prepare for reading activities
• Determine the meaning of unfamiliar words by using the word ending -est
• Identify author's purpose of a reading selection
• Identify reasons that support the author's purpose

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Lesson 13: Bad Dog, Dodger!: Lesson 3

Objectives:
• Build, blend, and read un–, re–, pre–, dis– words
• Recognize lesson vocabulary
• Spell words with silent consonants kn, wr, gn, and mb
• Classify/categorize words related to a topic from the story
• Read aloud fluently with expression and intonation
• Write rules
• Use I and me in writing

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Lesson 14: Bad Dog, Dodger!: Lesson 4

Objectives:
• Spell words with silent consonants kn, wr, gn, and mb
• Recognize text structure: nonfiction
• Read aloud fluently with expression and intonation
• Identify I and me

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Lesson 15: Bad Dog, Dodger!: Lesson 5

Objectives:
• Spell words with kn, wr, gn, and mb
• Decode silent consonants kn, wr, gn, mb
• Read lesson vocabulary
• Recognize story sequence
• Retell a story

Lesson 16: Horace and Morris but mostly Dolores: Lesson 1

Objectives:
• Associate the sound /f/ with the ph, gh spelling patterns
• Blend, read, and build ph and gh words
• Spell words with ph, gh
• Recognize author's purpose
• Ask questions
• Write advice
• Identify different kinds of pronouns

Lesson 17: Horace and Morris but mostly Dolores: Lesson 2

Objectives:
• Read and create words with ph and gh
• Spell words with ph and gh when dictating sentences
• Build background knowledge to understand text
• Determine the meaning of unfamiliar words by using the word ending –est
• Identify author's purpose of a reading selection
• Identify reasons that support the author's purpose
• Recognize different kinds of pronouns when writing

Lesson 18: Horace and Morris but mostly Dolores: Lesson 3

Objectives:
• Read and create kn, wr, gn, and mb words
• Recognize lesson vocabulary in a sentence
• Spell words with digraphs ph, gh when writing an adventure story
• Use words that end in –est to represent most
• Demonstrate fluency, expressing characterization when reading aloud
• Identify the author’s purpose of a text
• Write advice to a character in a story

Lesson 19: Horace and Morris but mostly Dolores: Lesson 4

Objectives:
• Spell words with ph, gh
• Recognize text structure: nonfiction
• Read while expressing characterization
• Write advice
• Identify different kinds of pronouns

Lesson 20: Horace and Morris but mostly Dolores: Lesson 5

Objectives:
• Spell words with ph and gh
• Decode ph, gh /f/
• Read lesson vocabulary
• Recognize author's purpose
• Retell a story

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Lesson 21: The Signmaker's Assistant: Lesson 1

Objectives:
• Blend, read, and build aw, au, augh, and al words
• Spell words with aw, au, augh, al
• Practice fluency with oral rereading
• Recognize realism and fantasy
• Use monitoring and fix up
• Write a sign
• Identify contractions

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Lesson 22: The Signmaker's Assistant: Lesson 2

Objectives:
• Sort words with vowels aw, au, augh, and al
• Spell words with aw, au, augh, al
• Build background
• Learn lesson vocabulary
• Use the smaller words in a compound word to determine its meaning
• Recognize realism and fantasy
• Identify contractions

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Lesson 23: The Signmaker's Assistant: Lesson 3

Objectives:
• Build, blend, and read ph, gh words
• Recognize lesson vocabulary
• Spell words with vowels aw, au, augh, al
• Create compound words
• Recognize and use varied sentences in writing
• Write a sign
• Use contractions in writing

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Lesson 24: The Signmaker's Assistant: Lesson 4

Objectives:
• Spell words with vowels aw, au, augh, and al
• Recognize text structure: nonfiction
• Read aloud fluently with appropriate phrasing
• Identify contractions
• Write a sign
• Explain how advertising sells products

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Lesson 25: Responsibility Unit Test

Unit 4: Traditions

In this unit, your student will explore the theme of tradition through a variety of reading selections. She will continue to practice and refine her skills for decoding and understanding text. Phonics and spelling instruction focuses on contractions, inflected endings, prefixes, and suffixes. Comprehension skills include comparing and contrasting, distinguishing between fact and opinion, drawing conclusions, identifying causal relationships, and understanding story elements such as character, setting, and plot. Reading instruction continues to develop fluency skills, such as reading accurately and with appropriate phrasing. Vocabulary instruction provides strategies for understanding homophones, homonyms, compound
words, and words from other languages. Additionally, your student will learn how to follow standard writing conventions, such as correct use of commas and quotation marks as well as proper capitalization. She will apply this knowledge as she works on writing assignments, including an expository paragraph and a story submitted as part of her writing portfolio. Writing models, graphic organizers, and checklists for drafting and revising are provided as support.

Objectives:
- Apply knowledge of letter-sound patterns and word structure to read and spell words correctly
- Read fiction and nonfiction selections, focusing on realistic fiction and narrative nonfiction
- Apply reading comprehension skills and strategies before, during, and after reading
- Understand and apply standard writing conventions for punctuation and capitalization
- Follow the steps of the writing process to write responses to a variety of prompts

Lesson 1: Just Like Josh Gibson: Lesson 1

Objectives:
- Build oral vocabulary
- Blend, read, and build contractions
- Spell contractions
- Practice fluency with oral rereading
- Compare and contrast
- Visualize a person in a story
- Identify when to use capital letters

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Lesson 2: Just Like Josh Gibson: Lesson 2

Objectives:
- Build contractions
- Spell contractions
- Build background
- Learn lesson vocabulary
- Use context clues to understand multiple-meaning words
- Identify capital letters

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Lesson 3: Just Like Josh Gibson: Lesson 3

Objectives:
- Blend, read, and sort aw, au, augh, al words
- Recognize lesson vocabulary
- Spell words with contractions
- Read aloud fluently with accuracy and appropriate pace
- Use homophones in sentences
- Use capital letters in writing

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Lesson 4: Just Like Josh Gibson: Lesson 4

Objectives:
- Build oral vocabulary
- Spell contractions
- Recognize text structure: expository nonfiction
- Read aloud fluently with accuracy and appropriate pace
- Identify capital letters
- Write facts
- Speak to communicate information

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Lesson 5: Just Like Josh Gibson: Lesson 5

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Objectives:
• Spell contractions
• Decode contractions 're, 've, 'd
• Compare and contrast
• Retell a story
• Read lesson vocabulary words

Lesson 6: Red, White, and Blue: Lesson 1

Objectives:
• Blend, read, and build base words with endings –s, –es, –ed, –ing, –er, –est
• Spell base words with endings –ed, –ing
• Identify facts and opinions
• Monitor and fix-up when reading
• Write answers to questions
• Identify quotation marks
• Build oral vocabulary

Lesson 7: Red, White, and Blue: Lesson 2

Objectives:
• Write and create base words with endings –s, –es, –ed, –ing, –er, –est
• Spell base words ending with –ed, –ing when dictating sentences
• Preview lesson vocabulary
• Identify a compound word using smaller word parts
• Locate information to write a narrative
• Identify quotation marks to determine who is speaking in a sentence

Lesson 8: Red, White, and Blue: Lesson 3

Objectives:
• Build, blend, and read contractions
• Spell base words with endings -ed, -ing
• Use compound words in sentences
• Recognize and use conventions in writing
• Use quotation marks in writing
• Write answers to questions

Lesson 9: Red, White, and Blue: Lesson 4

Objectives:
• Read and write words with inflected endings
• Answer questions and identify rhyme when reading and listening to poetry
• Demonstrate fluency and accuracy when reading
• Read aloud then describe key words
• Identify quotation marks to determine who is speaking in a sentence
• Write a paragraph about the American flag
• Demonstrate understanding of nonverbal cues to communicate information when speaking

Lesson 10: Red, White, and Blue: Lesson 5

Objectives:
• Spell words with inflected endings
• Decode inflected endings
• Read lesson vocabulary words
• Recognize statements of fact and opinion
• Retell a story
Lesson 11: A Birthday Basket for Tia: Lesson 1

Objectives:
• Blend, read, and sort words with syllables –tion, –ture
• Spell words with –tion, –ture
• Practice fluency in oral rereading
• Draw conclusions
• Summarize a story
• Write a report
• Use commas

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Lesson 12: A Birthday Basket for Tia: Lesson 2

Objectives:
• Group words according to the word endings: –tion, –ture
• Spell words ending with –tion, –ture
• Build background to understand text
• Preview lesson vocabulary
• Define homonyms using context clues
• Identify details for a narrative
• Recognize commas when writing

Lesson 13: A Birthday Basket for Tia: Lesson 3

Objectives:
• Review, read, and create words ending with -ed and -ing
• Spell words with endings –tion, –ture when provided the missing syllable
• Use non-English words and phrases in sentences
• Demonstrate fluency with appropriate phrasing when reading aloud
• Write a narrative about a special event
• Demonstrate knowledge of organization/paragraphs in writing
• Demonstrate knowledge of commas in writing

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Lesson 14: A Birthday Basket for Tia: Lesson 4

Objectives:
• Spell words with syllables –tion, –ture
• Recognize text structure: nonfiction
• Read aloud fluently with appropriate phrasing
• Identify commas
• Speak to communicate information

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Lesson 15: A Birthday Basket for Tia: Lesson 5

Objectives:
• Spell words with syllables -tion, -ture
• Decode syllables -tion, -ture
• Read lesson vocabulary words
• Draw conclusions
• Retell a story

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Lesson 16: Cowboys: Lesson 1

Objectives:
• Blend, read, and build words with suffixes –less and –ness
• Spell words with suffixes –less, –ness
• Identify cause and effect
• Use graphic organizers
• Write an ad
• Combine simple sentences

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Lesson 17: Cowboys: Lesson 2

Objectives:
- Read, group, and review words with suffixes –ness, –less
- Build background knowledge to understand text
- Describe how a character responds to an event
- Preview lesson vocabulary
- Participate in shared research
- Define unfamiliar words by using knowledge of word parts
- Identify commas when writing

Lesson 18: Cowboys: Lesson 3

Objectives:
- Review syllables –tion, –ture
- Spell words ending in –ness, –less
- Demonstrate understanding of time words when writing
- Demonstrate understanding of fluency with accuracy and appropriate pace when reading aloud
- Recognize and use different types of sentences
- Demonstrate understanding of commas in writing
- Create a job ad

Lesson 19: Cowboys: Lesson 4

Objectives:
- Review base words and endings
- Spell words with suffixes –ness, –less
- Recognize text structure: nonfiction
- Read aloud fluently with accuracy and appropriate pace
- Review commas in compound sentences
- Speak to communicate information

Lesson 20: Cowboys: Lesson 5

Objectives:
- Spell words with suffixes –ness, –less
- Decode suffixes –ness, –less
- Recognize cause and effect
- Retell a story
- Read lesson vocabulary words

Lesson 21: Jingle Dancer: Lesson 1

Objectives:
- Build oral vocabulary
- Blend, read, and build words with prefixes mis–, mid–
- Spell words with prefixes mis–, mid–
- Practice fluency in oral rereading
- Identify characters, setting, plot
- Use prior knowledge
- Identify indenting of paragraphs

Lesson 22: Jingle Dancer: Lesson 2

Objectives:
- Read and sort words with prefixes mis–, mid–
- Spell words with prefixes mis–, mid–
Lesson 23: Jingle Dancer: Lesson 3

Objectives:
- Blend, read, and sort words with prefixes mis–, mid–
- Spell words with prefixes mis–, mid–
- Recognize lesson vocabulary
- Use homonyms in sentences
- Read aloud fluently with appropriate phrasing
- Recognize and use organization/paragraphs in writing
- Write a story

Lesson 24: Jingle Dancer: Lesson 4

Objectives:
- Review syllables –tion, –ture
- Spell words with prefixes mis–, mid–
- Recognize text structure: nonfiction
- Read aloud fluently with appropriate phrasing
- Write a story
- Identify a paragraph
- Speak to communicate a clear purpose

Lesson 25: Traditions Unit Test

Objectives:
- Spell words with prefixes mis–, mid–
- Decode prefixes mis–, mid–
- Read lesson vocabulary words
- Recognize character, setting, and plot
- Retell a story
LANGUAGE ARTS 3 A
**Language Arts 3 A**

Throughout the course, the student will also develop writing skills. This course reinforces the basics of writing. The student will learn to structure and write complete sentences and then create paragraphs and longer compositions. After learning the five stages of the writing process—prewriting, drafting, revising, editing, and publishing—the student will master this process through weekly writing assignments. The student will also write for different purposes and use a variety of writing forms, including letters, narrative and expository compositions, research reports, poems, and summaries. Additionally, writing instruction introduces students to the essential traits of good writing: focus and idea development, organization, voice, effective word choice and sentences, and the use of standard writing conventions. Over time, the student will build a portfolio of writing assignments.

Instruction in grammar and language usage is reinforced in the meaningful context of writing lessons. The student will continue to master the basic skills of writing with instruction in spelling, grammar, language usage, and handwriting. *Reading Street* offers weekly spelling lists based on the patterns and relationships of letters within words. Daily practice activities reinforce the spelling strategies and give the student opportunities to use spelling words in context. Cursive handwriting is introduced and instructed with the Zaner-Bloser *Handwriting* workbook. The student will review manuscript writing before learning the basic strokes of cursive handwriting.

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**Unit 1: Dollars and Sense**

In this unit, your student will explore the theme of money’s importance in people’s lives while learning essential reading and writing skills. The reading selections encompass several genres, including historical fiction, fables, realistic fiction, and articles. Your student will learn and practice reading comprehension skills, such as previewing a text, connecting reading to prior knowledge, understanding sequence and story structure, visualizing, and checking for comprehension. Reading instruction also addresses fluency skills, such as reading with expression, and vocabulary development strategies, such as using context clues and referring to a dictionary. Additionally, your student will learn the steps of the writing process and apply them in weekly writing assignments, which culminate in a narrative paragraph submitted as the first assignment for his writing portfolio. Writing models, graphic organizers, and checklists for drafting and revising are provided as support. Finally, your student will receive weekly spelling instruction, which focuses on understanding vowel and consonant patterns, as well as grammar instruction in using complete sentences and understanding different sentence types.

Objectives:
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Learn and follow the steps of the writing process to create paragraph-length compositions in a variety of writing modes
- Understand the parts of a sentence and use different sentence types correctly in writing
- Apply knowledge of letter patterns and word structure to spell words correctly

**Lesson 1: Boom Town Lesson 1**

Objectives:
- Distinguish a realistic story from fantasy
- Use prior knowledge to help judge the distinction between realism and fantasy
- Define and identify sentences
- Distinguish between sentences and fragments
- Identify qualities of a character description
- Spell VCCV words, which usually have short vowels

**Lesson 2: Boom Town: Lesson 2**

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Objectives:
- Use context clues to determine the meaning of words that are homonyms
- Use prior knowledge to help judge the distinction between realism and fantasy
- Define and identify sentences
- Identify qualities of a character description
- Spell VCCV words, which usually have short vowels

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Lesson 3: Boom Town: Lesson 3

Objectives:
- Identify elements of realism and fantasy
- Activate and use prior knowledge
- Write a character description with a strong voice
- Spell VCCV words, which usually have short vowels

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Lesson 4: Boom Town: Lesson 4

Objectives:
- Examine features of expository nonfiction
- Compare and contrast across texts
- Define and identify sentences
- Focus on word choice
- Use a rubric
- Spell VCCV words, which usually have short vowels

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Lesson 5: Boom Town: Lesson 5

Objectives:
- Use prior knowledge to help judge the distinction between realism and fantasy
- Distinguish between sentences and fragments
- Spell VCCV words, which usually have short vowels

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Lesson 6: What About Me?: Lesson 1

Objectives:
- Determine the sequence of events in a story
- Summarize important events in the order in which they occur
- Define and identify the subject of a sentence
- Define and identify the predicate of a sentence
- Identify the characteristics of a song
- Spell plurals by adding -s or -es to most words

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Lesson 7: What About Me?: Lesson 2

Objectives:
- Use word structure to determine the meaning of compound words
- Identify sequence of events to improve comprehension
- Summarize to tell about and remember important events
- Define and identify the subject of a sentence
- Define and identify the predicate of a sentence
- Use subjects and predicates correctly in writing
- Spell plurals by adding -s or -es to most words

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Lesson 8: What About Me?: Lesson 3

Objectives:
- Summarize to tell about and remember important events
- Define and identify the predicate of a sentence
- Use subjects and predicates correctly in writing
- Write a song that includes repetition and rhyme
- Spell plurals by adding -s or -es to most words

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Lesson 9: What About Me?: Lesson 4

Objectives:
- Examine features of proverbs
- Compare and contrast across texts
- Define and identify the subject of a sentence
- Define and identify the predicate of a sentence
- Use subjects and predicates correctly in writing
- Focus on voice
- Spell plurals by adding -s or -es to most words

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Lesson 10: What About Me?: Lesson 5

Objectives:
- Identify sequence
- Identify the subject of a sentence
- Identify the predicate of a sentence
- Use subjects and predicates correctly in writing
- Spell plurals by adding -s or -es to most words

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Lesson 11: Alexander: Lesson 1

Objectives:
- Determine the sequence of events in a story
- Visualize characters and events to keep track of sequence
- Define and identify sentences that are statements
- Define and identify sentences that are questions
- Identify characteristics of a math story
- Spell words ending in -ed, -ing, -er, or -est

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Lesson 12: Alexander: Lesson 2

Objectives:
- Use a glossary or a dictionary to determine word meaning
- Identify sequence of events to improve comprehension
- Visualize during reading to form pictures of characters and events and to keep track of the sequence of events
- Define and identify sentences that are statements
- Define and identify sentences that are questions
- Spell words ending in -ed, -ing, -er, or -est

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Lesson 13: Alexander: Lesson 3

Objectives:
- Identify sequence of events to improve comprehension
- Visualize during reading to form pictures of characters and events and to keep track of the sequence of events
- Use statements and questions correctly in writing
- Write a math story that includes time-order words
Lesson 14: Alexander: Lesson 4

Objectives:
- Examine features of a textbook
- Compare and contrast across texts
- Become familiar with statement and question identification assessment on high-stakes tests

Lesson 15: Alexander: Lesson 5

Objectives:
- Identify sequence
- Define and identify sentences that are statements
- Define and identify sentences that are questions
- Spell words ending in -ed, -ing, -er, or -est

Lesson 16: If You Made a Million: Lesson 1

Objectives:
- Distinguish a realistic story from fantasy
- Define and identify sentences that are commands
- Define and identify sentences that are exclamations
- Identify the characteristics of an e-mail
- Spell words with long vowel digraphs

Lesson 17: If You Made a Million: Lesson 2

Objectives:
- Use context clues to determine the meaning of multiple-meaning words
- Define and identify sentences that are commands
- Define and identify sentences that are exclamations
- Spell words with long vowel digraphs

Lesson 18: If You Made a Million: Lesson 3

Objectives:
- Distinguish a realistic story from fantasy
- Use commands and exclamations correctly in writing
- Write an e-mail that includes commands and exclamations
- Spell words with long vowel digraphs

Lesson 19: If You Made a Million: Lesson 4

Objectives:
- Examine features of a picture encyclopedia
- Compare and contrast across texts
- Become familiar with command and exclamation identification assessment on high-stakes tests
- Spell words with long vowel digraphs

Lesson 20: If You Made a Million: Lesson 5

Objectives:
• Distinguish realism from fantasy
• Define and identify sentences that are commands
• Define and identify sentences that are exclamations
• Spell words with long vowel digraphs

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Lesson 21: My Rows and Piles of Coins: Lesson 1

Objectives:
• Identify characters and setting of a story
• Define and identify compound sentences
• Identify key words in a prompt
• Focus on word choice
• Spell words with the vowel sounds in out and toy

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Lesson 22: My Rows and Piles of Coins: Lesson 2

Objectives:
• Use word structure and prefixes to determine word meaning
• Identify the literary elements of setting and character
• Describe text structure
• Identify and interpret similes
• Identify compound sentences
• Spell words with the vowel sounds in out and toy

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Lesson 23: My Rows and Piles of Coins: Lesson 3

Objectives:
• Describe text structure
• Use compound sentences correctly in writing
• Identify and interpret similes
• Write a narrative paragraph for a test
• Identify key words in a prompt
• Spell words with the vowel sounds in out and toy

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Lesson 24: My Rows and Piles of Coins: Lesson 4

Objectives:
• Examine the features of a website
• Compare and contrast across texts
• Become familiar with compound sentence identification assessment on high-stakes tests
• Focus on word choice
• Use a rubric

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Lesson 25: Unit Review

Objectives:
• Critically analyze unit theme
• Connect content across selections
• Combine content and skills in meaningful activities that build literacy
• Respond to unit selections through a variety of modalities

Lesson 26: Dollars and Sense Unit Test

Unit 2: Smart Solutions

In this unit, your student will explore the theme of how people solve problems effectively, while building on the reading and writing skills introduced in Unit 1. In addition to the
selections presented in Reading Street, your student will read a short nonfiction book, *Ben Franklin and the Magic Squares*. This unit provides thorough instruction in reading comprehension skills, such as understanding characters, determining the main idea of fiction and nonfiction selections, asking questions while reading, and drawing conclusions. The fluency and vocabulary development strategies taught in Unit 1 are reinforced throughout the unit. Your student will further develop her writing skills by composing in a variety of forms, including a story summary and a problem-solution paragraph submitted as part of her portfolio. Spelling instruction addresses new word patterns and endings, including compound words and words beginning with three-letter blends. Grammar instruction develops your student’s understanding of nouns by addressing topics such as common and proper nouns, singular and plural nouns, and possessive nouns.

Objectives:
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Follow the steps of the writing process to create paragraph-length compositions in a variety of writing modes, including the expository mode
- Understand the characteristics of nouns and use nouns correctly in writing
- Apply knowledge of letter patterns and word structure to spell words correctly

**Lesson 1: Penguin Chick: Lesson 1**

Objectives:
- Identify main idea and details
- Use graphic organizers to show main ideas and details
- Identify common and proper nouns
- Identify the characteristics of a summary
- Identify the syllable pattern V/CV, VC/V

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**Lesson 2: Penguin Chick: Lesson 2**

Objectives:
- Find synonyms in context clues to determine the meaning of unknown words
- Use common and proper nouns in writing
- Understand characteristics of a summary
- Use word parts to decode words with syllable patterns V/CV, VC/V

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**Lesson 3: Penguin Chick: Lesson 3**

Objectives:
- Identify main idea and supporting details to improve comprehension
- Write a summary of the selection that includes all the necessary information
- Focus on organization/paragraphs

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**Lesson 4: Penguin Chick: Lesson 4**

Objectives:
- Examine features of a photo essay
- Write a summary of the selection that includes all of the necessary information
- Use common and proper nouns in writing
- Focus on organization/paragraphs

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**Lesson 5: Penguin Chick: Lesson 5**

Objectives:
- Read with accuracy
- Identify main idea and details

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Lesson 6: A Day’s Work: Lesson 1

Objectives:
• Build vocabulary by finding words related to the lesson concept
• Listen and visualize
• Visualize to understand character
• Identify the characteristics of rules
• Singular and plural nouns
• Spell words that end in -le

Lesson 7: A Day’s Work: Lesson 2

Objectives:
• Use context clues to determine the meaning of unfamiliar words
• Distinguish between singular and plural nouns
• Write a list of rules without wordiness
• Find the -le pattern in new words

Lesson 8: A Day’s Work: Lesson 3

Objectives:
• Read the lesson vocabulary and apply context clues
• Apply knowledge of characterization and visualization
• Assess your knowledge of the story with a retelling
• Apply singular and plural nouns in spelling
• Spell words that end in -le

Lesson 9: A Day’s Work: Lesson 4

Objectives:
• Compare and contrast across texts
• Examine features of an e-mail
• Focus on sentences

Lesson 10: A Day’s Work: Lesson 5

Objectives:
• Apply characterization to your writing
• Spell words ending in -le

Lesson 11: Ben Franklin and the Magic Squares: Lesson 1

Objectives:
• Listen for main ideas and details
• Build vocabulary by finding words related to the lesson concept
• Recognize main idea and supporting details
• Use monitor and fix up reading comprehension to identify main ideas and details
• Identify the characteristics of a problem-solution paragraph
• Define and identify irregular plural nouns
• Spell compound words
Lesson 12: Ben Franklin and the Magic Squares: Lesson 2

Objectives:
- Use reference sources, such as dictionaries, to find the meaning of unfamiliar words
- Review the syllable pattern C + le
- Spell irregular plural nouns correctly
- Spell compound words

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Lesson 13: Ben Franklin and the Magic Squares: Lesson 3

Objectives:
- Compose a problem-solution paragraph that is clearly written
- Recognize the main idea and details
- Spell compound words

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Lesson 14: Ben Franklin and the Magic Squares: Lesson 4

Objectives:
- Compose a problem-solution paragraph that is clearly written
- Focus on organization/paragraphs
- Spell compound words

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Lesson 15: Ben Franklin and the Magic Squares: Lesson 5

Objectives:
- Identify main idea and supporting details to improve comprehension
- Define and identify irregular plural nouns
- Spell compound words

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Lesson 16: Tops and Bottoms: Lesson 1

Objectives:
- Listen for author's purpose
- Activate prior knowledge
- Make predictions about the author's purpose
- Identify the characteristics of a feature story
- Define and identify singular possessive nouns

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Lesson 17: Tops and Bottoms: Lesson 2

Objectives:
- Use context clues and antonyms to determine word meaning
- Associate consonant blends, including three-letter blends, with the letters that spell them
- Identify author's purpose to improve comprehension
- Use author's purpose to predict
- Compose a feature story with a clear purpose
- Spell singular possessive nouns correctly

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Lesson 18: Tops and Bottoms: Lesson 3

Objectives:
- Identify author's purpose to improve comprehension
- Use author's purpose to predict
- Compose a feature story with a clear purpose
- Use singular possessive nouns in writing

Appendix A.2.a Language Arts Course Guides

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Lesson 19: Tops and Bottoms: Lesson 4

Objectives:
- Review compound words
- Apply decoding strategies: blend longer words
- Examine features of a fable
- Compare and contrast across texts
- Compose a feature story with a clear purpose
- Focus on voice
- Use singular possessive nouns in writing

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Lesson 20: Tops and Bottoms: Lesson 5

Objectives:
- Identify author’s purpose to improve comprehension
- Recognize idioms
- Use context clues and antonyms to determine word meaning
- Spell words with spl, thr, squ, and str

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Lesson 21: William’s House: Lesson 1

Objectives:
- Listen and draw conclusions
- Understand how to draw conclusions
- Ask questions to draw conclusions
- Define and identify plural possessive nouns
- Write an explanatory paragraph for a test

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Lesson 22: William’s House: Lesson 2

Objectives:
- Associate consonant digraphs with the letters that spell them
- Use context clues to determine the meaning of unfamiliar words
- Draw conclusions to improve comprehension
- Ask questions to draw conclusions

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Lesson 23: William’s House: Lesson 3

Objectives:
- Use context clues to determine the meaning of unfamiliar words
- Ask questions to draw conclusions
- Draw conclusions to improve comprehension
- Use plural possessive nouns correctly in writing

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Lesson 24: William’s House: Lesson 4

Objectives:
- Review consonant blends
- Blend and read words that contain consonant digraphs and consonant blends
- Apply decoding strategies: blend longer words
- Examine features of expository nonfiction
- Become familiar with possessive noun identification assessment on high-stakes tests

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Lesson 25: Unit Review

Objectives:
- Critically analyze unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy
- Respond to unit selections through a variety of modalities

Lesson 26: Smart Solutions Unit Test

Unit 3: People and Nature

In this unit, your student will explore the theme of people’s relationship to the natural world. He will read a variety of selections, including a short fiction book, Miss Rumphius, fables, a play, and nonfiction articles. Reading instruction will help your student to recognize common text structures, such as texts that compare and contrast or that show causes and effects. Your student will also become a more critical reader by learning how to understand an author’s purpose and how to make generalizations based on his reading. Throughout the unit, your student will continue to practice fluency skills and vocabulary development strategies. He will gain additional confidence as a writer as he learns to compose longer works, including a descriptive journal entry and a news story submitted as part of the writing portfolio. Spelling instruction addresses contractions, prefixes and suffixes, and silent letters. Grammar instruction focuses on verbs, including action and linking verbs, helping verbs, verb tenses, and subject-verb agreement.

Objectives:
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Follow the steps of the writing process to create multiple-paragraph compositions in a variety of writing modes
- Understand the characteristics of verbs and use verbs correctly in writing
- Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: Miss Rumphius: Lesson 1

Objectives:
- Listen for cause and effect
- Identify causes and effects
- Use story structure to understand cause and effect
- Identify the characteristics of a journal entry
- Define and identify action verbs
- Define and identify linking verbs

Lesson 2: Miss Rumphius: Lesson 2

Objectives:
- Use word structure to determine the meaning of words with suffixes
- Identify cause and effect to improve comprehension
- Use text structure to recognize cause and effect
- Write a journal entry with sensory details
- Spell words with contractions correctly

Lesson 3: Miss Rumphius: Lesson 3

Objectives:
- Write a journal entry with sensory details
- Use action and linking verbs in writing
- Spell words with contractions correctly
Lesson 4: Miss Rumphius: Lesson 4

Objectives:
- Write a journal entry with sensory details
- Review consonant digraphs sh, th, wh, ph, ch, tch, ch/sh, ng
- Focus on word choice

Lesson 5: Miss Rumphius: Lesson 5

Objectives:
- Identify cause and effect to improve comprehension
- Use text structure to recognize cause and effect
- Use action and linking verbs in writing
- Spell words with contractions
- Blend and read words that contain contractions and consonant digraphs

Lesson 6: Pushing Up the Sky: Lesson 1

Objectives:
- Listen for author's purpose
- Summarize to identify author's purpose
- Activate prior knowledge
- Analyze multisyllabic words
- Identify the characteristics of a skit
- Define and identify main verbs
- Define and identify helping verbs

Lesson 7: Pushing Up the Sky: Lesson 2

Objectives:
- Use word parts to decode words with prefixes un-, re-, mis-, dis-
- Use a glossary to determine the meaning of unfamiliar words
- Identify author's purpose
- Use your own words to summarize
- Define and identify main verbs
- Define and identify helping verbs

Lesson 8: Pushing Up the Sky: Lesson 3

Objectives:
- Determine author's purpose
- Summarize to identify author's purpose
- Use your own words to summarize
- Use a glossary to determine the meaning of unfamiliar words
- Write a skit with strong verbs
- Use main and helping verbs in writing

Lesson 9: Pushing Up the Sky: Lesson 4

Objectives:
- Examine features of a myth
- Determine author's purpose
- Focus on conventions
- Use main and helping verbs in writing
Lesson 10: Pushing Up the Sky: Lesson 5

Objectives:
- Determine author's purpose
- Summarize to identify author's purpose
- Spell words with prefixes un-, re-, mis-, dis-

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Lesson 11: Night Letters: Lesson 1

Objectives:
- Listen to draw conclusions
- Draw conclusions
- Ask questions to draw conclusions
- Identify the characteristics of a friendly letter
- Define subject-verb agreement

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Lesson 12: Night Letters: Lesson 2

Objectives:
- Use word structure to determine the meaning of compound words
- Draw conclusions about the content
- Ask questions to comprehend the selection and arrive at conclusions
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
- Write a friendly letter by putting ideas in order

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Lesson 13: Night Letters: Lesson 3

Objectives:
- Draw conclusions about the content
- Ask questions to comprehend the selection and arrive at conclusions
- Write a friendly letter by putting ideas in order
- Focus on conventions
- Make verbs agree with subjects in writing

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Lesson 14: Night Letters: Lesson 4

Objectives:
- Read across texts
- Examine features of poetry
- Write a friendly letter by putting ideas in order
- Focus on conventions
- Make verbs agree with subjects in writing
- Spell words with the consonant sounds /j/ and /k/

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Lesson 15: Night Letters: Lesson 5

Objectives:
- Draw conclusions about the content
- Examine features of poetry
- Spell words with consonant sounds /j/ and /k/
- Make verbs agree with subjects in writing

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Lesson 16: A Symphony of Whales: Lesson 1

Objectives:
- Listen for generalizations
Lesson 17: A Symphony of Whales: Lesson 2

Objectives:
- Use context clues to determine the meaning of unfamiliar words
- Make generalizations based on what is read
- Use generalizations to find an answer
- Use present, past, and future tenses in writing
- Identify the characteristics of a news story

Lesson 18: A Symphony of Whales: Lesson 3

Objectives:
- Make generalizations based on what is read
- Use generalizations to find an answer
- Write a news story that answers the questions who, what, where, when, why, and how
- Use present, past, and future tenses in writing

Lesson 19: A Symphony of Whales: Lesson 4

Objectives:
- Examine features of expository nonfiction
- Compare and contrast across texts
- Write a news story that answers the questions who, what, where, when, why, and how
- Focus on sentences
- Use past, present, and future tenses in writing

Lesson 20: A Symphony of Whales: Lesson 5

Objectives:
- Identify and make generalizations
- Review context clues
- Identify setting

Lesson 21: Volcanoes: Nature's Incredible Fireworks: Lesson 1

Objectives:
- Listen for similarities and differences
- Use compare and contrast
- Monitor and fix up to compare and contrast
- Define and identify irregular verbs
- Build vocabulary by finding words related to the lesson concept

Lesson 22: Volcanoes: Nature's Incredible Fireworks: Lesson 2

Objectives:
- Use a dictionary to determine the meaning of unfamiliar words
- Recognize and make comparisons
- Write a compare/contrast paragraph for a test
- Monitor understanding on an ongoing basis
- Define and identify irregular verbs
Lesson 23: Volcanoes: Nature's Incredible Fireworks: Lesson 3

Objectives:
- Recognize and make comparisons
- Monitor and understand on an ongoing basis
- Identify key words in a prompt
- Use irregular verbs in writing
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources

Lesson 24: Volcanoes: Nature's Incredible Fireworks: Lesson 4

Objectives:
- Review suffixes -ly, -ful, -ness, and -less
- Examine features of search engines
- Compare and contrast across texts
- Focus on word choice
- Spell words with wr, kn, mb, gn

Lesson 25: Unit Review

Objectives:
- Critically analyze unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy
- Respond to unit selections through a variety of modalities

Lesson 26: People and Nature Unit Test
LANGUAGE ARTS 3 B
**Language Arts 3 B**

In this course, the student will develop an appetite for longer and more complex stories, become a more critical and insightful reader, and learn to examine the author’s purpose and point of view. The student will read daily, practicing comprehension and applying fluency skills in both fiction and nonfiction texts as she reads. Skills and strategies for reading comprehension and vocabulary development are introduced in the context of brief reading selections presented in Scott Foresman’s *Reading Street*. The student then has the opportunity to practice these skills while reading longer selections in a variety of fiction and nonfiction genres. The selections are organized according to theme. These themes invite the student to view reading as a tool for information gathering, and the themes help the student make connections between the texts. In addition to formal reading instruction, the student will establish a daily reading routine. Students also read and respond to a novel, Beverly Cleary’s *The Mouse and the Motorcycle*, as part of the final unit in Language Arts 3 B.

Throughout the course, the student will also develop writing skills. This course reinforces the basics of writing. The student will learn to structure and write complete sentences and then create paragraphs and longer compositions. After learning the five stages of the writing process—prewriting, drafting, revising, editing, and publishing—the student will master this process through weekly writing assignments. The student will also write for different purposes and use a variety of writing forms, including letters, narrative and expository compositions, research reports, poems, and summaries. Additionally, writing instruction introduces students to the essential traits of good writing: focus and idea development, organization, voice, effective word choice and sentences, and the use of standard writing conventions. Over time, the student will build a portfolio of writing assignments.

Instruction in grammar and language usage is reinforced in the meaningful context of writing lessons. The student will continue to master the basic skills of writing with instruction in spelling, grammar, language usage, and handwriting. *Reading Street* offers weekly spelling lists based on the patterns and relationships of letters within words. Daily practice activities reinforce the spelling strategies and give the student opportunities to use spelling words in context. Cursive handwriting is introduced and instructed with the Zaner-Bloser *Handwriting* workbook. The student will review manuscript writing before learning the basic strokes of cursive handwriting.

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**Unit 1: One of a Kind**

In this unit, your student will explore the theme of uniqueness. He will read a variety of selections, including biographies, fantasy stories, folktales, and expository articles. Reading instruction will further develop your student’s understanding of story elements—such as plot and theme—and common text structures, such as texts that compare and contrast, or that show causes and effects. Your student will practice critical reading by learning how to make generalizations, and distinguish between facts and opinions in a text. Throughout the unit, your student will continue to practice fluency skills and vocabulary development strategies. His confidence as a writer will grow as he learns to write in different genres, including poetry and memoirs. He will write a sample of each to be submitted as part of the writing portfolio. Spelling instruction addresses irregular plurals, prefixes and suffixes, and vowel and consonant patterns. Grammar instruction focuses on pronouns, contractions, and prepositions.

**Objectives:**
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Follow the steps of the writing process to create compositions in a variety of writing modes, including prose and poetry
- Understand the characteristics of pronouns, contractions, and prepositions and use them correctly in writing
- Apply knowledge of letter patterns and word structure to spell words correctly

**Lesson 1: Wings: Lesson 1 🌈**

**Objectives:**
- Listen for cause and effect relationships
Lesson 2: Wings: Lesson 2

Objectives:
- Use word structure to determine the meaning of words with the -ing ending
- Identify cause and effect
- Use cause and effect to answer questions
- Use singular and plural pronouns in writing
- Identify characteristics of a poem
- Correctly spell plurals formed in irregular ways

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Lesson 3: Wings: Lesson 3

Objectives:
- Use word structure to determine the meaning of words with the -ing ending
- Identify cause and effect
- Use cause and effect to answer questions
- Use singular and plural pronouns in writing
- Write a poem with vivid words
- Correctly spell plurals formed in irregular ways

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Lesson 4: Wings: Lesson 4

Objectives:
- Examine features of a fairy tale
- Compare and contrast across texts
- Use singular and plural pronouns in writing
- Write a poem with vivid words
- Focus on organization/paragraphs
- Correctly spell plurals formed in irregular ways

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Lesson 5: Wings: Lesson 5

Objectives:
- Use word structure to determine the meaning of words with the -ing ending
- Identify cause and effect
- Use cause and effect to answer questions
- Use singular and plural pronouns in writing
- Correctly spell plurals formed in irregular ways

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Lesson 6: Hottest, Coldest, Highest, Deepest: Lesson 1

Objectives:
- Listen for comparisons and contrasts between animals and animal records
- Understand compare and contrast
- Ask questions to understand and to make comparisons and contrasts
- Define and identify subject and object pronouns
- Identify the characteristics of a description
- Identify and spell the different forms of the vowel sound /er/

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Lesson 7: Hottest, Coldest, Highest, Deepest: Lesson 2

Objectives:
- Use word structure to determine the meaning of compound words
- Compare and contrast to aid comprehension
- Use text features to locate information in a selection
- Ask questions that compare and contrast information
- Use subject and object pronouns in writing
- Write a description of a setting using an engaging style

Lesson 8: Hottest, Coldest, Highest, Deepest: Lesson 3

Objectives:
- Use word structure to determine the meaning of compound words
- Compare and contrast to aid comprehension
- Ask questions that compare and contrast information
- Use subject and object pronouns in writing
- Write a description of a setting using an engaging style
- Identify and spell the different forms of the vowel sound /er/

Lesson 9: Hottest, Coldest, Highest, Deepest: Lesson 4

Objectives:
- Examine features of a picture encyclopedia
- Compare and contrast across texts
- Use subject and object pronouns in writing
- Write a description of a setting using an engaging style
- Focus on word choice
- Identify and spell the different forms of the vowel sound /er/

Lesson 10: Hottest, Coldest, Highest, Deepest: Lesson 5

Objectives:
- Use word structure to determine the meaning of compound words
- Compare and contrast to aid comprehension
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
- Use subject and object pronouns in writing
- Identify and spell the different forms of the vowel sound /er/

Lesson 11: Rocks in His Head: Lesson 1

Objectives:
- Listen for generalizations
- Identify and make generalizations
- Use prior knowledge to make generalizations
- Identify the characteristics of a memoir
- Define and identify possessive pronouns

Lesson 12: Rocks in His Head: Lesson 2

Objectives:
- Use context clues to determine word meaning for multiple-meaning words
- Identify and make generalizations
- Activate and use prior knowledge to make generalizations
Lesson 13: Rocks in His Head: Lesson 3

Objectives:
- Use context clues to determine word meaning for multiple-meaning words
- Identify and make generalizations
- Activate and use prior knowledge to make generalizations
- Use possessive pronouns in writing
- Write a memoir with features that get your reader's attention
- Identify and spell words using prefixes that do not change the base word's spelling

Lesson 14: Rocks in His Head: Lesson 4

Objectives:
- Examine features of poetry
- Compare and contrast across texts
- Write a memoir with features that get your reader's attention
- Focus on sentences
- Use possessive pronouns in writing
- Identify and spell words using prefixes that do not change the base word's spelling

Lesson 15: Rocks in His Head: Lesson 5

Objectives:
- Identify and make generalizations
- Activate and use prior knowledge to make generalizations
- Use possessive pronouns in writing
- Identify and spell words using prefixes that do not change the base word's spelling

Lesson 16: America's Champion Swimmer: Gertrude Ederle: 1

Objectives:
- Listen for facts and opinions
- Recognize facts and opinions
- Monitor and fix up comprehension to differentiate between facts and opinions
- Identify the characteristics of describing a goal
- Define and identify contractions
- Identify and spell words that use suffixes that often refer to people

Lesson 17: America's Champion Swimmer: Gertrude Ederle: 2

Objectives:
- Use context clues to determine the meaning of multiple-meaning words
- Identify fact and opinion to improve comprehension
- Use fact and opinion to monitor and fix up
- Use contractions in writing
- Identify and spell words that use suffixes that often refer to people
Lesson 18: America's Champion Swimmer: Gertrude Ederle: 3

Objectives:
- Use context clues to determine the meaning of multiple-meaning words
- Identify fact and opinion to improve comprehension
- Use fact and opinion to monitor and fix up
- Use contractions in writing
- Conduct research to answer questions about a career
- Describe a goal using effective supporting details
- Identify and spell words that use suffixes that often refer to people

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Lesson 19: America's Champion Swimmer: Gertrude Ederle: 4

Objectives:
- Examine features of online directories
- Compare and contrast across texts
- Describe a goal using effective supporting details
- Focus on voice
- Use contractions in writing
- Identify and spell words that use suffixes that often refer to people

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Lesson 20: America's Champion Swimmer: Gertrude Ederle: 5

Objectives:
- Use context clues to determine the meaning of multiple-meaning words
- Identify fact and opinion to improve comprehension
- Use contractions in writing
- Identify and spell words that use suffixes that often refer to people

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Lesson 21: Fly, Eagle, Fly!: Lesson 1

Objectives:
- Listen for plot and theme
- Identify plot and theme
- Use graphic organizers to understand plot and theme
- Define and identify prepositions
- Spell and identify where to divide words with the VCCCV syllable pattern

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Lesson 22: Fly, Eagle, Fly!: Lesson 2

Objectives:
- Use word structure to determine the meaning of words with suffixes
- Identify plot and theme to improve comprehension
- Use graphic organizers to understand plot and theme
- Use prepositions in writing
- Spell and identify where to divide words with the VCCCV syllable pattern

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Lesson 23: Fly, Eagle, Fly!: Lesson 3

Objectives:
- Use word structure to determine the meaning of words with suffixes
- Identify plot and theme to improve comprehension
- Use graphic organizers to understand plot and theme
- Use prepositions in writing
- Formulate an inquiry question
- Spell and identify where to divide words with the VCCCV syllable pattern

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Lesson 24: Fly, Eagle, Fly!: Lesson 4

Objectives:
- Examine features of a fantasy
- Compare and contrast across texts
- Use prepositions in writing
- Focus on word choice
- Spell and identify where to divide words with the VCCCV syllable pattern

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Lesson 25: One of a Kind: Unit Review

Objectives:
- Critically analyze unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy
- Respond to unit selections through a variety of modalities

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Lesson 26: One of a Kind Unit Test

Unit 2: Cultures

In this unit, your student will explore the theme of cultures. She will read a variety of selections, including realistic and narrative fiction. Reading instruction will further develop your student’s understanding of story elements—such as sequence—and common text structures, such as texts that compare and contrast. Your student will practice critical reading by learning how to draw conclusions, determine the author’s purpose, and distinguish between facts and opinions in a text. Throughout the unit, your student will continue to practice fluency skills and vocabulary development strategies. Her confidence as a writer will grow as she learns to write in different genres, including an editorial and a story review. She will write an opinion essay to submit as part of the writing portfolio. Spelling instruction addresses syllables, homophones, the vowel sound in ball, and suffixes. Grammar instruction focuses on adjectives, adverbs, and conjunctions.

Objectives:
- Read fiction selections to expand knowledge of other cultures
- Apply reading comprehension strategies before, during, and after reading
- Follow the steps in the writing process to create compositions including an advertisement and opinion piece
- Understand the characteristics of adjectives, articles, adverbs, and conjunctions
- Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: Suki’s Kimono: Lesson 1

Objectives:
- Listen to compare and contrast details
- Understand how to compare and contrast
- Make predictions to aid comprehension of comparisons and contrasts
- Identify the characteristics of an editorial
- Define and identify adjectives
- Define and identify articles
- Spell words with the CVVC or CVV patterns

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Lesson 2: Suki’s Kimono: Lesson 2

Objectives:
- Use context clues to determine the meaning of words that have synonyms
- Compare and contrast information to improve comprehension
- Use information gained by comparing and contrasting to predict
- Use adjectives and articles in writing
- Spell words with the CVVC or CVV patterns

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Lesson 3: Suki’s Kimono: Lesson 3

Objectives:
- Use context clues to determine the meaning of words that have synonyms
- Compare and contrast information to improve comprehension
- Use information gained by comparing and contrasting to predict
- Write an editorial using strong adjectives
- Use adjectives and articles in writing
- Spell words with the CVVC or CVV patterns

Lesson 4: Suki’s Kimono: Lesson 4

Objectives:
- Examine features of expository nonfiction
- Compare and contrast across texts
- Write an editorial using strong adjectives
- Focus on focus/ideas
- Use adjectives and articles in writing
- Spell words with the CVVC or CVV patterns

Lesson 5: Suki’s Kimono: Lesson 5

Objectives:
- Use context clues to determine the meaning of words that have synonyms
- Compare and contrast information to improve comprehension
- Use adjectives and articles in writing
- Spell words with the CVVC or CVV patterns

Lesson 6: How My Family Lives in America: Lesson 1

Objectives:
- Listen for both facts and opinions
- Distinguish between fact and opinion
- Understand text structure
- Define and identify the comparative and superlative forms of adjectives
- Identify the characteristics of writing your opinion
- Identify and spell words that sound alike but have different spellings and meanings

Lesson 7: How My Family Lives in America: Lesson 2

Objectives:
- Use antonyms as context clues to determine word meaning
- Identify facts and opinions to improve comprehension
- Recognize how facts and opinions are used within the text structure
- Use comparative and superlative adjective forms in writing
- Identify and spell words that sound alike but have different spellings and meanings

Lesson 8: How My Family Lives in America: Lesson 3

Objectives:
- Use antonyms as context clues to determine word meaning
- Identify facts and opinions to improve comprehension
• Recognize how facts and opinions are used within the text structure
• Use comparative and superlative adjective forms in writing
• Write an opinion using persuasive words
• Identify and spell words that sound alike but have different spellings and meanings

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Lesson 9: How My Family Lives in America: Lesson 4

Objectives:
• Examine features of a textbook
• Compare and contrast across texts
• Write an opinion using persuasive words
• Focus on sentences
• Use comparative and superlative adjective forms in writing
• Identify and spell words that sound alike but have different spellings and meanings

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Objectives:
• Use antonyms as context clues to determine word meaning
• Identify facts and opinions to improve comprehension
• Recognize how facts and opinions are used within the text structure
• Use comparative and superlative adjective forms in writing
• Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
• Identify and spell words that sound alike but have different spellings and meanings

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Lesson 11: Good-Bye, 382 Shin Dang Dong: Lesson 1

Objectives:
• Listen for sequence of events
• Understand sequence in a story
• Read on to understand sequence in a story
• Identify the characteristics of an ad
• Define and identify adverbs
• Spell with the vowel sound in ball

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Lesson 12: Good-Bye, 382 Shin Dang Dong: Lesson 2

Objectives:
• Use word structure to determine the meaning of compound words
• Identify sequence of events to improve comprehension
• Recognize how following sequence of story events helps you monitor your comprehension and identify when to take steps to improve it
• Use adverbs in writing
• Spell with the vowel sound in ball

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Lesson 13: Good-Bye, 382 Shin Dang Dong: Lesson 3

Objectives:
• Use word structure to determine the meaning of compound words
• Identify sequence of events to improve comprehension
• Recognize how following sequence of story events helps you monitor your comprehension and identify when to take steps to improve it
• Use adverbs in writing
• Write an ad using reasons to persuade
Lesson 14: Good-Bye, 382 Shin Dang Dong: Lesson 4

Objectives:
- Examine features of a song
- Compare and contrast across texts
- Write an ad using reasons to persuade
- Use adverbs in writing
- Focus on word choice
- Spell with the vowel sound in ball

Lesson 15: Good-Bye, 382 Shin Dang Dong: Lesson 5

Objectives:
- Identify sequence of events to improve comprehension
- Use word structure to determine the meaning of compound words
- Use adverbs in writing
- Spell with the vowel sound in ball

Lesson 16: Jalapeño Bagels: Lesson 1

Objectives:
- Listen to draw conclusions and make inferences
- Draw conclusions about facts and details in a selection
- Summarize main ideas to draw conclusions
- Identify the characteristics of answering a question
- Define and identify adverbs that compare
- Identify and spell more of the different forms of the vowel sound in ball

Lesson 17: Jalapeño Bagels: Lesson 2

Objectives:
- Use context clues to define unfamiliar words
- Use information from the text to draw conclusions
- Use the conclusions you have drawn from the text to summarize it
- Answer a question, putting reasons in order
- Use adverbs that compare in writing
- Identify and spell more of the different forms of the vowel sound in ball

Lesson 18: Jalapeño Bagels: Lesson 3

Objectives:
- Use context clues to define unfamiliar words
- Use information from the text to draw conclusions
- Use the conclusions you have drawn from a text to summarize it
- Use adverbs that compare in writing
- Answer a question, putting reasons in order
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
- Identify and spell more of the different forms of the vowel sound in ball

Lesson 19: Jalapeño Bagels: Lesson 4

Objectives:
- Examine features of expository nonfiction
Lesson 20: Jalapeño Bagels: Lesson 5

Objectives:
• Use context clues to define unfamiliar words
• Use adverbs that compare in writing
• Answer a question, putting reasons in order
• Identify and spell more of the different forms of the vowel sound in ball

Lesson 21: Me and Uncle Romie: Lesson 1

Objectives:
• Listen for clues about author’s purpose
• Understand author’s purpose
• Activate prior knowledge about a topic to understand author’s purpose
• Identify the characteristics of a story review

Lesson 22: Me and Uncle Romie: Lesson 2

Objectives:
• Use context clues to determine word meaning of homonyms
• Identify the author’s purpose in writing the story
• Understand how the author uses the reader’s prior knowledge about something to accomplish his or her purpose for writing the story
• Define and identify conjunctions
• Use conjunctions in writing
• Identify the characteristics of a story review
• Spell words with suffixes -y, -ish, -hood, -ment

Lesson 23: Me and Uncle Romie: Lesson 3

Objectives:
• Identify the author’s purpose in writing the story
• Understand how the author uses the reader’s prior knowledge about something to accomplish his or her purpose for writing the story
• Use conjunctions in writing
• Write a story review, keeping the audience in mind
• Spell words with suffixes -y, -ish, -hood, -ment

Lesson 24: Me and Uncle Romie: Lesson 4

Objectives:
• Examine features of online reference sources
• Compare and contrast across texts
• Focus on conventions
• Use a rubric
• Become familiar with conjunction assessment on high-stakes tests
• Review spelling words with suffixes -y, -ish, -hood, -ment

Lesson 25: Cultures: Unit Review
Objectives:
• Critically analyze unit theme
• Connect content across selections
• Combine content and skills in meaningful activities that build literacy
• Respond to unit selections through a variety of modalities

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Lesson 26: Cultures Unit Test

Unit 3: Freedom

In this unit, your student will explore the theme of freedom. He will read a variety of fiction and nonfiction selections, including narrative nonfiction, a photo essay, a fantasy story, and a novel. Reading instruction in the first half of this unit will further develop your student’s understanding of story elements, such as plot and theme, and common text structures, such as texts organized with a main idea and details. Your student will also become a more critical reader by learning how to distinguish between facts and opinions in a text.

In the second half of this unit, your student will read the novel The Mouse and the Motorcycle by Beverly Cleary. The Mouse and the Motorcycle tells the story of a young mouse named Ralph who lives in a hotel. One day, upon noticing that a boy left his toy motorcycle behind, Ralph decides to take a ride—a decision that leads to many adventures. This exciting story provides your student with the opportunity to apply previously learned reading skills to longer works while also enhancing his understanding of story elements. As your student reads The Mouse and the Motorcycle, he will identify literary elements, analyze characters, and use comprehension strategies to make connections and draw conclusions.

Throughout the unit, your student will continue to practice fluency skills and vocabulary development strategies. He will refine his writing skills as he writes in different genres, including an informative and a descriptive paragraph submitted as part of the writing portfolio. Spelling instruction addresses vowel sounds, suffixes, and multisyllabic words. Grammar instruction addresses capitalization, commas, and ways to combine sentences.

Objectives:
• Read fiction and nonfiction selections in a variety of genres
• Apply reading comprehension skills and strategies before, during, and after reading
• Follow the steps of the writing process to create compositions in a variety of writing modes, including taking notes and writing good paragraphs
• Understand the characteristics of capital letters, commas, and sentences
• Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: The Story of the Statue of Liberty: Lesson 1

Objectives:
• Listen for the main idea and important details
• Determine main idea and identify details
• Use text structure to identify main idea
• Define and identify capital letters
• Identify the characteristics of taking notes
• Spell words with the vowel sounds in tooth and cook

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Lesson 2: The Story of the Statue of Liberty: Lesson 2

Objectives:
• Use word structure to determine the meaning of words with prefixes
• Identify main idea and supporting details to improve comprehension
• Use text structure to help determine main idea
• Define and identify capital letters
• Use capital letters in writing
• Spell words with the vowel sounds in tooth and cook

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Lesson 3: The Story of the Statue of Liberty: Lesson 3

Objectives:
• Identify main idea and supporting details to improve comprehension
• Use text structure to help determine main idea
• Use capital letters in writing
• Identify the characteristics of taking notes
• Take notes on factual material and paraphrase the facts in the notes
• Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
• Spell words with vowel sounds in tooth and cook

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Lesson 4: The Story of the Statue of Liberty: Lesson 4

Objectives:
• Examine features of a textbook
• Compare and contrast across texts
• Use capital letters in writing
• Focus on focus/ideas
• Spell words with the vowel sounds in tooth and cook

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Lesson 5: The Story of the Statue of Liberty: Lesson 5

Objectives:
• Review main ideas and supporting details
• Use capital letters in writing
• Spell words with the vowel sounds in tooth and cook

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Lesson 6: Talking Walls: Art for the People: Lesson 1

Objectives:
• Listen for statements of fact and opinion
• Distinguish between statements of fact and opinion
• Use facts to answer questions
• Define combining sentences
• Identify and spell words with the syllable patterns -tion, -sion, and -ture

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Lesson 7: Talking Walls: Art for the People: Lesson 2

Objectives:
• Use a glossary to define unfamiliar words
• Distinguish between fact and opinion to improve comprehension
• Answer questions to distinguish between fact and opinion
• Use sentence combining in writing
• Write an informational paragraph with a topic sentence
• Identify and spell words with the syllable patterns -tion, -sion, and -ture

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Lesson 8: Talking Walls: Art for the People: Lesson 3

Objectives:
• Use a glossary to define unfamiliar words
• Distinguish between fact and opinion to improve comprehension
• Answer questions to distinguish between fact and opinion
• Write an informational paragraph with a topic sentence
• Use sentence combining in writing
• Identify and spell words with the syllable patterns -tion, -sion, and -ture

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Lesson 9: Talking Walls: Art for the People: Lesson 4

Objectives:
Objectives:
- Examine features of a poem
- Compare and contrast across texts
- Write an informational paragraph with a topic sentence
- Focus on organization/paragraphs
- Use sentence combining in writing
- Identify and spell words with the syllable patterns -tion, -sion, and -ture

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Lesson 10: Talking Walls: Art for the People: Lesson 5

Objectives:
- Distinguish between fact and opinion to improve comprehension
- Answer questions to distinguish between fact and opinion
- Use sentence combining in writing
- Identify and spell words with the syllable patterns -tion, -sion, and -ture

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Lesson 11: Two Bad Ants: Lesson 1

Objectives:
- Listen for the story's plot and theme
- Identify a story's plot and theme
- Visualize plot events to improve comprehension
- Identify the characteristics of writing about a picture
- Define and identify commas
- Spell multisyllabic words

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Lesson 12: Two Bad Ants: Lesson 2

Objectives:
- Use word structure to determine the meaning of words with prefixes and suffixes
- Identify plot sequence to improve comprehension
- Use the visualizing strategy to understand plot sequence
- Use commas in writing
- Write about a picture by elaborating on its features
- Spell multisyllabic words

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Lesson 13: Two Bad Ants: Lesson 3

Objectives:
- Use word structure to determine the meaning of words with prefixes and suffixes
- Identify plot sequence to improve comprehension
- Use the visualizing strategy to understand plot sequence
- Write about a picture by elaborating on its features
- Use commas in writing
- Spell multisyllabic words

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Lesson 14: Two Bad Ants: Lesson 4

Objectives:
- Evaluate online sources
- Compare and contrast across texts
- Write about a picture by elaborating on its features
- Focus on word choice
- Spell multisyllabic words

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Lesson 15: Two Bad Ants: Lesson 5

Objectives:
- Identify plot sequence to improve comprehension
- Use commas in writing
- Spell multisyllabic words

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Lesson 16: Setting Background: The Mouse and the Motorcycle

Objectives:
- Understand the events of the story
- Discuss how the main character, Ralph Mouse, takes on human characteristics
- Read text that has elements of fantasy

Lesson 17: The Mouse and the Motorcycle: Chapters 1–2

Objectives:
- Review the elements of fiction
- Develop and apply effective comprehension strategies
- Read and analyze the text, then respond to questions
- Draw conclusions
- Define new vocabulary and identify words in context
- Compose a narrative based on real-life experiences

Lesson 18: The Mouse and the Motorcycle: Chapters 3–4

Objectives:
- Preview and make predictions
- Read the text, then respond to questions
- Compare your predictions with the actual events
- Define new vocabulary and identify words in context

Lesson 19: The Mouse and the Motorcycle: Chapters 5–6

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Identify the sequence of events for the two chapters

Lesson 20: The Mouse and the Motorcycle: Chapters 7–8

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Learn about cause-and-effect relationships in stories

Lesson 21: The Mouse and the Motorcycle: Chapters 9–10

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Enrich reading through visualization
- Compare and contrast characters

Lesson 22: The Mouse and the Motorcycle: Chapter 11

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Analyze how the author uses dialogue to convey meaning to the reader

Lesson 23: The Mouse and the Motorcycle: Chapters 12–13
Determine how the actions of the main characters lead to solving the problem in the story

Lesson 24: The Mouse and the Motorcycle: Review

Objectives:
- Study vocabulary and review previous lesson goals

Lesson 25: The Mouse and the Motorcycle: Test
LANGUAGE ARTS 4 A
Language Arts 4 A

In this course, the student will read stories that provide him with the opportunity to use his imagination to travel to exotic places and meet interesting people. The student will become a more critical and insightful reader, and learn to examine the author’s purpose and point of view. The student will read daily, practicing comprehension and fluency skills as he reads. Skills and strategies for reading comprehension and vocabulary development are presented in the context of brief reading selections presented in Scott Foresman’s *Reading Street*. The student then has the opportunity to practice these skills while reading longer selections in a variety of fiction and nonfiction genres. The selections are organized according to themes, including diverse regions in the United States, work and play, and patterns in nature. These themes invite the student to view reading as a tool for information gathering, and the themes help the student make connections across science and social studies. In addition to formal reading instruction, the student will establish a daily reading routine and practice speaking and listening skills.

Throughout the course, the student will continue to develop his writing and grammar skills. This course reinforces the basics of writing, including the five-stage writing process: prewriting, drafting, revising, editing, and publishing. The student will master this process through weekly writing assignments. The student will also write for different purposes and use a variety of writing forms, including creative, factual, descriptive, artistic, and persuasive compositions. Additionally, writing instruction develops the student's understanding of the essential traits of good writing: focus and idea development, organization, voice, effective word choice and sentences, and the use of standard writing conventions. Over time, the student will build a portfolio of written work.

Instruction in grammar and language usage is reinforced in the meaningful context of writing lessons. The student will continue to master the basic skills of writing with instruction in spelling, grammar, and language usage. *Reading Street* offers weekly spelling lists based on the patterns and relationship of letters within words. Daily practice activities reinforce the spelling strategies and give the student opportunities to use spelling words in context.

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Unit 1: This Land is Your Land

In this unit, your student will explore the theme of diversity in the United States while learning essential reading and writing skills. The reading selections encompass several genres, including historical fiction, a modern fairy tale, realistic fiction, and articles. Your student will learn and practice reading comprehension skills, such as previewing a text, connecting reading to prior knowledge, finding the author's purpose and main idea, understanding sequence and story structure. Reading instruction also addresses fluency skills, such as reading with correct phrasing and volume, and vocabulary development strategies, such as understanding word structure, using context clues, and referring to a dictionary. Additionally, your student will learn the steps of the writing process and apply them in weekly writing assignments, which culminate in a narrative that is submitted as the first assignment for his writing portfolio. Writing models, graphic organizers, and checklists for drafting and revising are provided as support. Finally, your student will receive weekly spelling instruction, which focuses on understanding long and short vowel patterns, as well as grammar instruction in using complete sentences and understanding different sentence types.

Objectives:
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Learn and follow the steps of the writing process to create compositions in a variety of writing modes
- Understand and use different sentence types correctly in writing
- Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: Because of Winn-Dixie: Lesson 1

Objectives:
- Listen for a sequence of events
- Determine a sequence of events
Lesson 2: Because of Winn-Dixie: Lesson 2

Objectives:
- Use word structure to determine word meaning
- Recognize sequence to improve comprehension
- Use sequence to summarize
- Identify qualities of a memoir
- Define and identify declarative sentences
- Define and identify interrogative sentences
- Spell short vowel words with the VCCV pattern

Lesson 3: Because of Winn-Dixie: Lesson 3

Objectives:
- Use word structure to determine word meaning
- Recognize sequence to improve comprehension
- Use sequence to summarize
- Identify and understand idioms
- Write a memoir with a distinctive voice or tone
- Use declarative and interrogative sentences correctly in writing
- Spell short vowel words with the VCCV pattern

Lesson 4: Because of Winn-Dixie: Lesson 4

Objectives:
- Examine features of expository nonfiction
- Compare and contrast across texts
- Write a memoir with a distinctive voice or tone
- Focus on word choice
- Spell short vowel words with the VCCV pattern

Lesson 5: Because of Winn-Dixie: Lesson 5

Objectives:
- Define and identify declarative sentences
- Define and identify interrogative sentences
- Use declarative and interrogative sentences correctly in writing
- Practice a test-taking strategy

Lesson 6: Lewis and Clark and Me: Lesson 1

Objectives:
- Listen for the author’s purpose
- Determine the author’s purpose
- Use strategies to answer questions about the author’s purpose
- Define and identify imperative and exclamatory sentences
- Identify qualities of a journal entry
- Spell words with long a and i

Lesson 7: Lewis and Clark and Me: Lesson 2
Objectives:
- Evaluate author's purpose to improve comprehension
- Answer questions to identify and analyze author's purpose
- Use word structure to determine word meaning
- Define and identify imperative and exclamatory sentences
- Distinguish between exclamatory sentences and interjections
- Spell words with long a and i

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Lesson 8: Lewis and Clark and Me: Lesson 3

Objectives:
- Evaluate author's purpose to improve comprehension
- Answer questions to identify and analyze author's purpose
- Use imperative and exclamatory sentences correctly in writing
- Write a journal entry with effective transitions
- Spell words with long a and i

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Lesson 9: Lewis and Clark and Me: Lesson 4

Objectives:
- Examine features of narrative nonfiction
- Compare and contrast across texts
- Write a journal entry with effective transitions
- Focus on sentences
- Use imperative and exclamatory sentences effectively in writing
- Spell words with long a and i

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Lesson 10: Lewis and Clark and Me: Lesson 5

Objectives:
- Determine the author's purpose for writing
- Evaluate author's purpose to improve comprehension
- Define and identify imperative and exclamatory sentences
- Use imperative and exclamatory sentences correctly in writing
- Spell words with long a and i

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Lesson 11: Grandfather's Journey: Lesson 1

Objectives:
- Listen for sequence
- Define and identify subjects and predicates
- Distinguish between complete and simple subjects and predicates
- Identify qualities of a postcard
- Spell words with long e and o

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Lesson 12: Grandfather's Journey: Lesson 2

Objectives:
- Use a dictionary or glossary to determine word meaning
- Identify sequence of events to improve comprehension
- Spell words with long e and long o
- Define and identify subjects and predicates
- Distinguish between complete and simple subjects and predicates

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Lesson 13: Grandfather's Journey: Lesson 3
Objectives:
- Identify sequence of events to improve comprehension
- Write a postcard with events in sequence
- Use subjects and predicates correctly in writing
- Spell words with long e and long o

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Lesson 14: Grandfather's Journey: Lesson 4

Objectives:
- Examine the features of online reference sources
- Compare and contrast across texts
- Write a postcard with events in sequence
- Focus on voice
- Use subjects and predicates correctly in writing
- Spell words with long e and long o

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Lesson 15: Grandfather's Journey: Lesson 5

Objectives:
- Define and identify subjects and predicates
- Distinguish between complete and simple subjects and predicates
- Spell words with long e and o

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Lesson 16: The Horned Toad Prince: Lesson 1

Objectives:
- Identify qualities of an e-mail invitation
- Build vocabulary by finding words related to the lesson concept
- Listen for author's purpose
- Define and identify compound sentences
- Spell words that end with the long e

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Lesson 17: The Horned Toad Prince: Lesson 2

Objectives:
- Determine writer's purpose
- Identify author's purpose to improve comprehension
- Identify qualities of an e-mail invitation
- Distinguish between simple sentences and compound sentences

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Lesson 18: The Horned Toad Prince: Lesson 3

Objectives:
- Identify author's purpose to improve comprehension
- Use story structure to determine author's purpose
- Write an e-mail invitation with a clear purpose
- Use compound sentences correctly in writing
- Spell words that end with the long e

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Lesson 19: The Horned Toad Prince: Lesson 4

Objectives:
- Examine features of expository nonfiction
- Write an e-mail invitation with a clear purpose
- Focus on focus/ideas
- Use compound sentences correctly in writing
Lesson 20: The Horned Toad Prince: Lesson 5

Objectives:
- Use context clues to determine word meaning
- Identify author's purpose to improve comprehension
- Use story structure to determine author's purpose
- Distinguish between simple sentences and compound sentences
- Spell words with the long e

Lesson 21: Letters Home from Yosemite: Lesson 1

Objectives:
- Listen for main ideas and details
- Determine main idea and supporting details
- Use a graphic organizer to determine main ideas and supporting details
- Define and identify clauses and complex sentences
- Distinguish between dependent clauses and independent clauses
- Spell words with long u sounds

Lesson 22: Letters Home from Yosemite: Lesson 2

Objectives:
- Identify main idea and supporting details to improve comprehension
- Use a graphic organizer to record main idea and supporting details
- Use word structure to determine meaning
- Define and identify clauses and complex sentences
- Distinguish between dependent clauses and independent clauses
- Spell words with long u sounds

Lesson 23: Letters Home from Yosemite: Lesson 3

Objectives:
- Identify main idea and supporting details to improve comprehension
- Use word structure to determine meaning
- Write a narrative for a test
- Use clauses and complex sentences correctly in writing
- Spell words with long u sounds

Lesson 24: Letters Home from Yosemite: Lesson 4

Objectives:
- Examine features of a song
- Write a narrative for a test
- Focus on conventions
- Use clauses and complex sentences correctly in writing
- Spell words with long u sounds

Lesson 25: Unit Review

Objectives:
- Critically analyze unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy
- Respond to unit selections through a variety of modalities
Lesson 26: This Land is Your Land Unit Test

Unit 2: Work and Play

In this unit, your student will explore the theme of work and play, while building on the reading and writing skills introduced in Unit 1. This unit provides thorough instruction in reading comprehension skills, such as understanding causes and effects, drawing conclusions, distinguishing between facts and opinions, asking questions while reading, and monitoring one’s own understanding. The fluency and vocabulary development strategies taught in Unit 1 are reinforced throughout the unit. Your student will further develop her writing skills by composing in a variety of forms, including a news story and a job description submitted as part of her portfolio. Spelling instruction addresses new word patterns and endings, including regular and irregular plurals, and words with r-controlled vowels. Grammar instruction develops your student's understanding of nouns by addressing topics such as common and proper nouns, singular and plural nouns, and possessive nouns.

Objectives:
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Learn and follow the steps of the writing process to create compositions in a variety of writing modes, including the expository mode
- Understand the characteristics of nouns and use nouns correctly in writing
- Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: What Jo Did: Lesson 1

Objectives:
- Identify cause and effect relationships to improve comprehension
- Use prior knowledge to understand cause and effect relationships
- Spell plural words by adding -s or -es
- Build vocabulary by finding words related to the lesson concept

Lesson 2: What Jo Did: Lesson 2

Objectives:
- Identify cause and effect relationships to improve comprehension
- Use prior knowledge to determine cause-effect relationships
- Identify qualities of a poem
- Define and identify common and proper nouns

Lesson 3: What Jo Did: Lesson 3

Objectives:
- Identify cause and effect relationships to improve comprehension
- Define and identify common and proper nouns
- Build vocabulary by finding words related to the lesson concept
- Identify qualities of a poem
- Write a poem using figurative language

Lesson 4: What Jo Did: Lesson 4

Objectives:
- Identify cause-and-effect relationships to improve comprehension
- Define and identify common and proper nouns
- Write a poem using figurative language
- Focus on word choice
- Use common and proper nouns correctly in writing
Lesson 5: What Jo Did: Lesson 5

Objectives:
• Use prior knowledge to understand cause-and-effect relationships
• Spell plural words by adding -s or -es
• Compare and contrast across texts

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Lesson 6: Coyote School News: Lesson 1

Objectives:
• Listen to draw conclusions
• Use prior knowledge to draw conclusions
• Use a dictionary or glossary to determine word meaning
• Identify qualities of a news story

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Lesson 7: Coyote School News: Lesson 2

Objectives:
• Draw conclusions from facts and details
• Use prior knowledge to draw conclusions
• Use a dictionary or glossary to determine word meaning

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Lesson 8: Coyote School News: Lesson 3

Objectives:
• Draw conclusions to improve comprehension
• Use prior knowledge to draw conclusions
• Use a dictionary or glossary to determine word meaning
• Write a news story, including necessary information
• Use regular plural nouns correctly in writing

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Lesson 9: Coyote School News: Lesson 4

Objectives:
• Use prior knowledge to draw conclusions
• Draw conclusions to improve comprehension
• Write a news story including necessary information
• Identify qualities of a news story
• Focus on focus/ideas
• Use regular plural nouns correctly in writing

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Lesson 10: Coyote School News: Lesson 5

Objectives:
• Draw conclusions to improve comprehension
• Use prior knowledge to draw conclusions
• Use regular plural nouns correctly in writing
• Spell irregular plurals

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Lesson 11: Grace and the Time Machine: Lesson 1

Objectives:
• Listen to draw conclusions
• Draw conclusions about what happens in a story
• Answer questions about conclusions with facts and details
• Identify qualities of a play scene
• Define and identify irregular plural nouns

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Lesson 12: Grace and the Time Machine: Lesson 2

Objectives:
- Draw conclusions using details from the text and experience
- Answer questions with support from text and experience
- Use word structure to determine word meaning
- Define and identify irregular plural nouns
- Spell words with ar and or

Lesson 13: Grace and the Time Machine: Lesson 3

Objectives:
- Draw conclusions using details from the text and experience
- Answer questions with support from text and experience
- Write a play scene including visual details
- Use irregular plural nouns correctly in writing
- Spell words with ar and or

Lesson 14: Grace and the Time Machine: Lesson 4

Objectives:
- Examine features of expository nonfiction
- Write a play scene including visual details
- Focus on organization/paragraphs
- Use irregular plural nouns correctly in writing
- Spell words with ar and or

Lesson 15: Grace and the Time Machine: Lesson 5

Objectives:
- Draw conclusions about what happens in a story
- Draw conclusions using details from the text and experience
- Answer questions with support from text and experience
- Spell words with ar and or

Lesson 16: Marven and the Great North Woods: Lesson 1

Objectives:
- Listen for statements of fact and opinion
- Identify statements of fact and opinion
- Use a fix-up strategy to monitor comprehension of facts and opinions
- Identify qualities of a job description
- Define and identify singular possessive nouns
- Spell words with consonant pairs ng, nk, ph, and wh

Lesson 17: Marven and the Great North Woods: Lesson 2

Objectives:
- Identify statements of fact and opinion
- Use a fix-up strategy to monitor comprehension of facts and opinions
- Use a dictionary or glossary to determine word meaning
- Define and identify singular possessive nouns
- Spell words with consonant pairs ng, nk, ph, and wh
Lesson 18: Marven and the Great North Woods: Lesson 3

Objectives:
- Distinguish between statements of fact and opinion to improve comprehension
- Monitor reading and use fix-up strategies to distinguish between statements of fact and opinion
- Use a dictionary or glossary to determine word meaning
- Write a job description including time-order words
- Use singular possessive nouns correctly in writing
- Spell words with consonant pairs ng, nk, ph, and wh

Lesson 19: Marven and the Great North Woods: Lesson 4

Objectives:
- Use singular possessive nouns correctly in writing
- Focus on focus/ideas
- Examine the features of e-mail

Lesson 20: Marven and the Great North Woods: Lesson 5

Objectives:
- Distinguish between statements of fact and opinion to improve comprehension
- Monitor reading and use fix-up strategies to distinguish between statements of fact and opinion
- Spell words with consonant pairs ng, nk, ph, and wh
- Use singular possessive nouns correctly in writing

Lesson 21: So You Want to be President: Lesson 1

Objectives:
- Listen for main ideas and supporting details
- Determine main idea and supporting details
- Use main ideas and supporting details to summarize
- Define and identify plural possessive nouns
- Learn how to form plural possessive nouns
- Spell words with ear, ir, our, and ur

Lesson 22: So You Want to be President: Lesson 2

Objectives:
- Use a dictionary or glossary to determine word meaning
- Identify main idea and supporting details to improve comprehension
- Summarize using main ideas and supporting details
- Define and identify plural possessive nouns
- Learn how to form plural possessive nouns
- Spell words with ear, ir, our, and ur

Lesson 23: So You Want to be President: Lesson 3

Objectives:
- Use a dictionary or glossary to determine word meaning
- Identify main idea and supporting details to improve comprehension
- Summarize using main ideas and supporting details
Lesson 24: So You Want to be President: Lesson 4

Objectives:
• Identify main idea and supporting details to improve comprehension
• Summarize using main ideas and supporting details
• Write an explanation for a test
• Focus on organization/paragraphs
• Use plural possessive nouns correctly in writing
• Spell words with ear, ir, our, and ur

Lesson 25: Unit Review

Objectives:
• Critically analyze unit theme
• Connect content across selections
• Combine content and skills in meaningful activities that build literacy
• Respond to unit selections through a variety of modalities

Lesson 26: Work and Play Unit Test

Unit 3: Patterns in Nature

In this unit, your student will explore the theme of patterns in nature. He will read a variety of selections, including a short fiction book, Into the Sea, a fantasy story and a myth, and nonfiction articles. Reading instruction will help your student understand causes and effects, make generalizations, and use graphic sources of information. Throughout the unit, your student will continue to practice fluency skills, as well as vocabulary development strategies such as using context clues and understanding word structure. Your student will gain additional confidence as a writer as he learns to compose longer works, including a friendly letter and a problem-and-solution essay submitted as part of his writing portfolio. Spelling instruction addresses a variety of topics, including homophones, compound words, and possessives. Grammar instruction focuses on verbs, including action and linking verbs, helping verbs, verb tenses, and subject-verb agreement.

Objectives:
• Read fiction and nonfiction selections in a variety of genres
• Apply reading comprehension skills and strategies before, during, and after reading
• Follow the steps of the writing process to create compositions in a variety of writing modes
• Understand the characteristics of verbs and use verbs correctly in writing
• Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: Into The Sea: Lesson 1

Objectives:
• Build vocabulary by finding words related to the lesson concept
• Listen for cause-effect relationships
• Define and identify action and linking verbs
• Ask questions to help determine cause and effect

Lesson 2: Into the Sea: Lesson 2

Objectives:
• Identify cause and effect to improve comprehension
Lesson 3: Into the Sea: Lesson 3

Objectives:
- Define and identify action and linking verbs
- Use context clues to determine word meaning

Lesson 4: Into the Sea: Lesson 4

Objectives:
- Focus on voice
- Use action and linking verbs correctly in writing
- Identify qualities of a description
- Write a description that includes powerful verbs

Lesson 5: Into the Sea: Lesson 5

Objectives:
- Spell words that end with -ed and -ing
- Determine cause and effect

Lesson 6: Adelina's Whales: Lesson 1

Objectives:
- Build vocabulary by finding words related to the lesson concept
- Listen for statements of fact and opinion
- Identify and evaluate statements of fact and opinion

Lesson 7: Adelina's Whales: Lesson 2

Objectives:
- Use graphic organizers to identify statements of fact and opinion
- Use context clues to determine word meaning
- Define and identify main and helping verbs
- Spell and use homophones correctly

Lesson 8: Adelina's Whales: Lesson 3

Objectives:
- Use main and helping verbs correctly in writing
- Identify qualities of a friendly letter
- Write a friendly letter including specific details
- Focus on sentences

Lesson 9: Adelina's Whales: Lesson 4

Objectives:
- Focus on sentences
- Compare and contrast across texts
Lesson 10: Adelina's Whales: Lesson 5

Objectives:
- Spell and use homophones correctly
- Use context clues to determine word meaning

Lesson 11: How Night Came from the Sea: Lesson 1

Objectives:
- Listen for generalizations
- Recognize and form valid generalizations
- Visualize to understand and evaluate generalizations
- Define and identify subject-verb agreement
- Spell words with the vowel sound in shout

Lesson 12: How Night Came from the Sea: Lesson 2

Objectives:
- Use context clues to determine word meaning
- Recognize and make generalizations to improve comprehension
- Visualize to understand generalizations
- Spell words with the vowel sound in shout

Lesson 13: How Night Came from the Sea: Lesson 3

Objectives:
- Recognize and make generalizations to improve comprehension
- Visualize to understand generalizations
- Write a comparison including similes and metaphors
- Spell words with the vowel sound in shout

Lesson 14: How Night Came from the Sea: Lesson 4

Objectives:
- Examine features of pourquoi tales
- Write a comparison including similes and metaphors
- Focus on word choice

Lesson 15: How Night Came from the Sea: Lesson 5

Objectives:
- Recognize and form valid generalizations
- Spell words with the vowel sound in shout

Lesson 16: Eye of the Storm: Lesson 1

Objectives:
- Listen for cause-effect relationships
- Use graphic sources to help understand text
- Make predictions based on information from graphic sources
- Spell compound words
- Define and identify past, present, and future tenses
Lesson 17: Eye of the Storm: Lesson 2

Objectives:
- Use word structure to determine word meaning
- Use graphic sources to understand information
- Predict content and outcomes using graphic sources
- Recognize similes
- Spell compound words

Lesson 18: Eye of the Storm: Lesson 3

Objectives:
- Use graphic sources to understand information
- Predict content and outcomes using graphic sources
- Write about a problem and solution with careful attention to organization
- Spell compound words

Lesson 19: Eye of the Storm: Lesson 4

Objectives:
- Examine the features of a Web site
- Focus on organization/paragraphs
- Spell compound words

Lesson 20: Eye of the Storm: Lesson 5

Objectives:
- Listen for cause-effect relationships
- Spell compound words

Lesson 21: The Great Kapok Tree: Lesson 1

Objectives:
- Listen for generalizations and for details that can be used to make generalizations
- Identify and make generalizations
- Use story structure to generalize
- Define and identify irregular verbs
- Use irregular verbs correctly in writing
- Spell possessives

Lesson 22: The Great Kapok Tree: Lesson 2

Objectives:
- Use word structure to determine word meaning
- Identify and make generalizations to improve comprehension
- Use story structure to generalize
- Spell possessives

Lesson 23: The Great Kapok Tree: Lesson 3

Objectives:
- Identify and make generalizations to improve comprehension
- Use story structure to generalize
Lesson 24: The Great Kapok Tree: Lesson 4

Objectives:
- Examine features of expository nonfiction
- Compare and contrast across texts
- Focus on conventions
- Identify key words in a prompt
- Spell possessives

Lesson 25: Unit Review

Objectives:
- Critically analyze unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy
- Respond to unit selections through a variety of modalities

Lesson 26: Patterns in Nature Unit Test
LANGUAGE ARTS 4 B
**Language Arts 4 B**

In this course, the student will read stories that provide him with the opportunity to use his imagination to travel to exotic places and meet interesting people. The student will become a more critical and insightful reader, and learn to examine the author's purpose and point of view. The student will read daily, practicing comprehension and fluency skills as he reads. Skills and strategies for reading comprehension and vocabulary development are presented in the context of brief reading selections presented in Scott Foresman's *Reading Street*. The student then has the opportunity to practice these skills while reading longer selections in a variety of fiction and nonfiction genres. The selections are organized according to themes, including diverse regions in the United States, work and play, patterns in nature, mystery and fantasy, adventure, and achieving goals. These themes invite the student to view reading as a tool for information gathering, and the themes help the student make connections across science and social studies. In addition to formal reading instruction, the student will establish a daily reading routine and practice speaking and listening skills.

Throughout the course, the student will continue to develop his writing and grammar skills. This course reinforces the basics of writing, including the five-stage writing process: prewriting, drafting, revising, editing, and publishing. The student will master this process through weekly writing assignments. The student will also write for different purposes and use a variety of writing forms, including creative, factual, descriptive, artistic, and persuasive compositions. Additionally, writing instruction develops the student's understanding of the essential traits of good writing: focus and idea development, organization, voice, effective word choice and sentences, and the use of standard writing conventions. Over time, the student will build a portfolio of written work.

Instruction in grammar and language usage is reinforced in the meaningful context of writing lessons. The student will continue to master the basic skills of writing with instruction in spelling, grammar, and language usage. *Reading Street* offers weekly spelling lists based on the patterns and relationship of letters within words. Daily practice activities reinforce the spelling strategies and give the student opportunities to use spelling words in context.

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**Unit 1: Puzzles and Mysteries**

In this unit, your student will explore the theme of puzzles and mysteries, while building on the reading and writing skills introduced in Language Arts 4 A. Your student will read a variety of fiction and nonfiction selections, including a play, a biography, realistic fiction, and a novel. Reading instruction in the first half of this unit develops comprehension skills such as understanding characters and setting, using graphic sources, asking questions while reading, and monitoring one's own understanding.

In the second half of this unit, your student will read award-winning author E. L. Konigsburg's novel *From the Mixed-up Files of Mrs. Basil E. Frankweiler*. The novel tells the story of a bright but unhappy sixth grader, Claudia Kincaid, who is bored with her life in suburban Connecticut. When Claudia runs away to the Metropolitan Museum of Art in New York City, she is confronted with an intriguing mystery to solve. This exciting story provides your student with the opportunity to apply previously learned reading skills to longer works while also enhancing her understanding of story elements. As your student follows Claudia's adventures, she will identify literary elements, analyze characters, and use comprehension strategies to make connections and draw conclusions.

Throughout the unit, fluency and vocabulary development strategies are reinforced. Fluency is monitored and evaluated. Your student will further develop her writing skills by composing in a variety of forms, including a travel brochure and a business letter submitted as part of her portfolio. Spelling instruction addresses final sounds, consonant sounds, and words with prefixes. Grammar instruction develops your student's understanding of pronouns and antecedents, possessive pronouns, contractions, and negatives.

**Objectives:**
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Learn and follow the steps of the writing process to create compositions in a variety of writing modes, including the expository mode
• Understand the characteristics of pronouns and use pronouns correctly in writing
• Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: The King in the Kitchen: Lesson 1

Objectives:
• Listen to determine setting and draw conclusions about characters
• Identify characters and setting in a story
• Use monitoring and fix-up strategies to clarify understanding of text
• Define and identify pronouns and antecedents
• Identify the characteristics of a business letter
• Spell words with final er, ar

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Lesson 2: The King in the Kitchen: Lesson 2

Objectives:
• Use a dictionary or glossary to determine word meaning
• Understand characters and setting to improve comprehension
• Monitor comprehension and use fix-up strategies to understand characters and setting
• Use pronouns that agree with their antecedents
• Use pronouns and antecedents correctly in writing
• Spell words with final er, ar

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Lesson 3: The King in the Kitchen: Lesson 3

Objectives:
• Analyze characters and setting in a story
• Monitor comprehension while reading
• Correctly use pronouns and antecedents
• Write a narrative based on a play
• Compose a business letter with elaborated ideas
• Correctly spell words with final er, ar

Lesson 4: The King in the Kitchen: Lesson 4

Objectives:
• Examine features of poetry
• Compare and contrast across texts
• Use pronouns that agree with their antecedents
• Use pronouns and antecedents correctly in writing
• Write a business letter, elaborating on the ideas expressed
• Focus on voice
• Spell words with final er, ar

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Lesson 5: The King in the Kitchen: Lesson 5

Objectives:
• Understand characters and setting to improve comprehension
• Use pronouns and antecedents correctly in writing
• Use pronouns that agree with their antecedents
• Spell words with final er, ar

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Lesson 6: Seeker of Knowledge: Lesson 1

Objectives:
• Listen for causes and effects
• Interpret graphic sources
• Ask questions to enhance understanding of graphic sources
• Identify the characteristics of a feature story
Lesson 7: Seeker of Knowledge: Lesson 2

Objectives:
- Use word structure to determine word meaning
- Use graphic sources to better understand text
- Ask questions to improve comprehension of graphic sources
- Learn which possessive pronouns are used before nouns and which are used alone
- Use possessive pronouns correctly in writing
- Spell words with consonant sounds /j/, /ks/, and /kw/

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Lesson 8: Seeker of Knowledge: Lesson 3

Objectives:
- Use graphic sources to better understand text
- Ask questions to improve comprehension of graphic sources
- Use possessive pronouns correctly in writing
- Write a feature story with emphasis on showing, not telling
- Spell words with consonant sounds /j/, /ks/, and /kw/

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Lesson 9: Seeker of Knowledge: Lesson 4

Objectives:
- Examine the features of search engines
- Compare and contrast across texts
- Use possessive pronouns correctly in writing
- Write a feature story with emphasis on showing, not telling
- Focus on conventions
- Spell words with consonant sounds /j/, /ks/, and /kw/

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Lesson 10: Seeker of Knowledge: Lesson 5

Objectives:
- Ask questions to improve comprehension of graphic sources
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
- Use possessive pronouns correctly in writing
- Spell words with consonant sounds /j/, /ks/, and /kw/

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Lesson 11: Encyclopedia Brown: Lesson 1

Objectives:
- Listen to identify parts of a story’s plot
- Identify elements of plot
- Use prior knowledge to understand plot
- Define and identify contractions and negatives
- Spell words with the prefixes un-, dis-, and in-

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Lesson 12: Encyclopedia Brown: Lesson 2

Objectives:
Lesson 13: Encyclopedia Brown: Lesson 3

Objectives:
- Use context clues to determine word meaning
- Identify elements of plot to improve comprehension
- Use prior knowledge to understand elements of plot
- Learn how to form contractions and negatives
- Use contractions and negatives correctly in writing
- Identify key words in a prompt
- Spell words with the prefixes un-, dis-, and in-

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Lesson 14: Encyclopedia Brown: Lesson 4

Objectives:
- Examine features of newspaper articles
- Compare and contrast across texts
- Use contractions and negatives correctly in writing
- Focus on organization/paragraphs
- Spell words with the prefixes un-, dis-, and in-

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Lesson 15: Encyclopedia Brown: Lesson 5

Objectives:
- Identify elements of plot
- Use prior knowledge to understand plot
- Define and identify contractions and negatives
- Spell words with the prefixes un-, dis-, and in-

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Lesson 16: From the Mixed-up Files, Chapter 1

Objectives:
- Understand the background of the novel
- Learn about the author’s life
- Read text representing a different time period
- Make connections to aid comprehension

Lesson 17: From the Mixed-up Files, Chapters 2–3

Objectives:
- Summarize a text selection
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context

Lesson 18: From the Mixed-up Files, Chapter 4

Objectives:
- Identify and explain literary elements
- Use a graphic organizer to aid comprehension
- Analyze relationships between characters
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
Lesson 19: From the Mixed-up Files, Chapter 5

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context

Lesson 20: From the Mixed-up Files, Chapters 6–7

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context

Lesson 21: From the Mixed-up Files, Chapter 8

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context

Lesson 22: From the Mixed-up Files, Chapter 9

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Write a narrative from a selected character's point of view

Lesson 23: From the Mixed-up Files, Chapter 10

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Write a narrative from a selected character's point of view

Lesson 24: From the Mixed-up Files, Review

Objectives:
- Study vocabulary and review the novel

Lesson 25: From the Mixed-up Files, Test

Unit 2: Adventures by Land, Air, and Water

This unit focuses on the theme of adventure while continuing to build on the reading and writing skills introduced in earlier units. Your student will revisit core reading comprehension skills such as understanding the author's purpose, visualizing, identifying the main idea of a selection, and drawing conclusions. Additionally, this unit provides instruction in understanding story structure and text structures. Fluency and vocabulary development strategies taught in previous units are reinforced throughout the unit. Writing instruction in this unit will develop your student's ability to write persuasively as she composes in various forms, including a story review and an opinion essay submitted as part of her writing portfolio. Spelling instruction addresses new word study concepts, including Greek and Latin word parts. Grammar instruction develops your student's understanding of modifiers, including adjectives and adverbs, comparative and superlative forms, and prepositional phrases.

Objectives:
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Follow the steps of the writing process to create compositions in a variety of writing modes
- Understand the characteristics of modifiers, including comparative and superlative modifiers, and use them correctly in writing
- Apply knowledge of letter patterns and word structure, including Greek and Latin word parts, to spell words correctly

Lesson 1: Sailing Home: Lesson 1

Objectives:
- Listen for author's purpose
- Identify author's purpose
Lesson 2: Sailing Home: Lesson 2

Objectives:
- Use context clues to determine word meaning
- Understand author's purpose to improve comprehension
- Use author's purpose to help predict
- Use adjectives and articles correctly in writing
- Write a book or story review supporting the opinions expressed
- Spell multisyllabic words

Lesson 3: Sailing Home: Lesson 3

Objectives:
- Understand author's purpose to improve comprehension
- Use author's purpose to help predict
- Use context clues to determine word meaning
- Use adjectives and articles correctly in writing
- Write a book or story review supporting the opinions expressed
- Spell multisyllabic words

Lesson 4: Sailing Home: Lesson 4

Objectives:
- Examine features of narrative nonfiction
- Compare and contrast across texts
- Use adjectives and articles correctly in writing
- Write a book or story review supporting the opinions expressed
- Focus on focus/ideas
- Spell multisyllabic words

Lesson 5: Sailing Home: Lesson 5

Objectives:
- Understand author's purpose to improve comprehension
- Use author's purpose to help predict
- Use adjectives and articles correctly in writing
- Spell multisyllabic words

Lesson 6: Lost City: The Discovery of Machu Picchu: Lesson 1

Objectives:
- Listen for comparisons and contrasts
- Compare and contrast information in a text
- Visualize to understand comparisons and contrasts
- Identify the characteristics of an editorial
- Define and identify comparative and superlative adjectives
- Spell words with syllable patterns V/CV and VC/V

Lesson 7: Lost City: The Discovery of Machu Picchu: Lesson 2
Objectives:
• Compare and contrast to improve comprehension
• Visualize selection details to help compare and contrast
• Use word structure to determine word meaning
• Learn how to form comparative and superlative adjectives
• Use comparative and superlative adjectives correctly in writing
• Identify the characteristics of an editorial
• Spell words with syllable patterns V/CV and VC/V

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Lesson 8: Lost City: The Discovery of Machu Picchu: Lesson 3
Objectives:
• Compare and contrast to improve comprehension
• Visualize selection details to help compare and contrast
• Use word structure to determine word meaning
• Write an editorial using exact words
• Use comparative and superlative adjectives in writing
• Spell words with syllable patterns V/CV and VC/V

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Lesson 9: Lost City: The Discovery of Machu Picchu: Lesson 4
Objectives:
• Examine features of a personal essay
• Compare and contrast across texts
• Use comparative and superlative adjectives in writing
• Write an editorial using exact words
• Focus on word choice
• Spell words with syllable patterns V/CV and VC/V

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Lesson 10: Lost City: The Discovery of Machu Picchu: Lesson 5
Objectives:
• Compare and contrast to improve comprehension
• Visualize selection details to help compare and contrast
• Use word structure to determine word meaning
• Use comparative and superlative adjectives correctly in writing
• Spell words with syllable patterns V/CV and VC/V

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Lesson 11: Amelia and Eleanor Go for a Ride: Lesson 1
Objectives:
• Listen for sequence
• Identify the sequence of events
• Use sequence to determine story structure
• Identify the characteristics of an interview
• Define and identify adverbs
• Spell words with Greek word parts

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Lesson 12: Amelia and Eleanor Go for a Ride: Lesson 2
Objectives:
• Use context clues to determine word meaning
• Identify the sequence of events to improve comprehension
• Use sequence to identify story structure
• Identify the characteristics of an interview
• Use adverbs correctly in writing
• Spell words with Greek word parts

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Lesson 13: Amelia and Eleanor Go for a Ride: Lesson 3

Objectives:
• Identify the sequence of events to improve comprehension
• Use sequence to identify story structure
• Use context clues to determine word meaning
• Use adverbs correctly in writing
• Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
• Write an interview with questions focused on one topic
• Spell words with Greek word parts

Lesson 14: Amelia and Eleanor Go for a Ride: Lesson 4

Objectives:
• Evaluate online sources
• Compare and contrast across texts
• Use adverbs correctly in writing
• Write an interview with questions focused on one topic
• Focus on focus/ideas
• Spell words with Greek word parts

Lesson 15: Amelia and Eleanor Go for a Ride: Lesson 5

Objectives:
• Identify the sequence of events to improve comprehension
• Use sequence to identify story structure
• Use context clues to determine word meaning
• Use adverbs correctly in writing
• Spell words with Greek word parts

Lesson 16: Antarctic Journal: Lesson 1

Objectives:
• Listen for literary elements (theme, setting)
• Determine main idea and supporting details
• Use text structure to identify main ideas and supporting details
• Define and identify comparative and superlative adverbs
• Learn how to form comparative and superlative adverbs
• Identify characteristics of a letter of acceptance
• Spell words with Latin roots

Lesson 17: Antarctic Journal: Lesson 2

Objectives:
• Use word structure to determine word meaning
• Identify main ideas and supporting details to improve comprehension
• Use text structure to help identify main ideas
• Use comparative and superlative adverbs
• Identify characteristics of a letter of acceptance
• Spell words with Latin roots

Lesson 18: Antarctic Journal: Lesson 3

Objectives:
• Identify main idea and supporting details to improve comprehension
Lesson 19: Antarctic Journal: Lesson 4

Objectives:
- Examine features of narrative nonfiction
- Compare and contrast across texts
- Use comparative and superlative adverbs correctly in writing
- Write a letter of acceptance using language suitable for the audience
- Focus on voice
- Spell words with Latin roots

Lesson 20: Antarctic Journal: Lesson 5

Objectives:
- Identify main ideas and supporting details to improve comprehension
- Use text structure to help identify main ideas
- Use comparative and superlative adverbs in writing
- Spell words with Latin roots

Lesson 21: Moonwalk: Lesson 1

Objectives:
- Listen to draw conclusions
- Use facts and details to draw conclusions
- Use monitoring and fix-up strategies to clarify understanding of text and draw logical conclusions
- Define and identify prepositions and prepositional phrases
- Identify the characteristics of writing an opinion
- Spell related words

Lesson 22: Moonwalk: Lesson 2

Objectives:
- Use context clues to determine word meaning
- Draw conclusions to improve comprehension
- Monitor understanding and use fix-up strategies to draw logical conclusions
- Use prepositions and prepositional phrases correctly in writing
- Identify the characteristics of writing an opinion
- Spell related words

Lesson 23: Moonwalk: Lesson 3

Objectives:
- Draw conclusions to improve reading comprehension
- Monitor understanding and use fix-up strategies to draw logical conclusions
- Use prepositions and prepositional phrases correctly in writing
- Write your opinion using persuasive words
- Spell related words
Lesson 24: Moonwalk: Lesson 4

Objectives:
• Use prepositions and prepositional phrases correctly in writing
• Write your opinion using persuasive words
• Focus on word choice

Lesson 25: Unit Review

Objectives:
• Critically analyze unit theme
• Connect content across selections
• Combine content and skills in meaningful activities that build literacy
• Respond to unit selections through a variety of modalities

Lesson 26: Adventures by Land, Air, and Water Unit Test

Unit 3: Reaching for Goals

In this unit, your student will read various selections that focus on the theme of reaching a goal, including a trade book, *Mieko and the Fifth Treasure*. He will also continue to build on the reading skills introduced in earlier units, such as understanding cause-effect relationships, distinguishing between fact and opinion, generalizing, using graphic sources of information, and understanding character development and theme. This unit focuses primarily on nonfiction selections, particularly biographies. Fluency and vocabulary development strategies taught in previous units are reinforced throughout the unit. Writing instruction in this unit will develop your student's ability to understand and create informational texts. In addition to learning how to take notes and create an outline, your student will write a character sketch and an informational article submitted as part of his writing portfolio. Spelling instruction focuses on prefixes and suffixes as well as words that include silent consonants and the schwa sound. Grammar instruction develops your student’s understanding of writing conventions, including conventions for capitalization, comma usage, quotation marks, and titles.

Objectives:
• Read fiction and nonfiction selections in a variety of genres
• Apply reading comprehension skills and strategies before, during, and after reading
• Follow the steps of the writing process to create compositions in a variety of writing modes
• Understand writing conventions, including conventions for punctuation and capitalization, and apply this knowledge when writing
• Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: My Brother Martin: Lesson 1

Objectives:
• Listen for cause-effect relationships
• Identify cause-effect relationships
• Answer questions to help determine causes and effects
• Define and identify conjunctions
• Identify the characteristics of a biography
• Spell words with schwa

Lesson 2: My Brother Martin: Lesson 2

Objectives:
• Use word structure to determine word meaning
• Identify cause-effect relationships to improve comprehension
• Answer questions to help determine causes and effects
• Use conjunctions correctly in writing
Lesson 3: My Brother Martin: Lesson 3
Objectives:
- Identify cause-effect relationships to improve comprehension
- Answer questions to help determine causes and effects
- Use conjunctions correctly in writing
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
- Write a biography using a variety of sentences
- Spell words with schwa

Lesson 4: My Brother Martin: Lesson 4
Objectives:
- Examine features of poetry
- Compare and contrast across texts
- Use conjunctions correctly in writing
- Write a biography using a variety of sentences
- Focus on sentences
- Spell words with schwa

Lesson 5: My Brother Martin: Lesson 5
Objectives:
- Identify cause and effect relationships to improve comprehension
- Answer questions to help determine causes and effects
- Use conjunctions correctly in writing
- Spell words with schwa

Lesson 6: Jim Thorpe's Bright Path: Lesson 1
Objectives:
- Listen for plot elements
- Distinguish between statements of fact and opinion
- Use statements of fact and opinion to determine text structure
- Define and identify capitalization
- Identify the characteristics of notes
- Spell words with the prefixes mis-, non-, and re-

Lesson 7: Jim Thorpe's Bright Path: Lesson 2
Objectives:
- Use a dictionary or glossary to determine word meaning
- Identify statements of fact and opinion to improve comprehension
- Use text structure to identify statements of fact and opinion
- Use capitalization correctly in writing
- Take notes on factual material
- Spell words with the prefixes mis-, non-, and re-

Lesson 8: Jim Thorpe's Bright Path: Lesson 3
Objectives:
- Identify statements of fact and opinion to improve comprehension
Lesson 9: Jim Thorpe's Bright Path: Lesson 4

Objectives:

- Examine features of expository nonfiction
- Compare and contrast across texts
- Use capitalization correctly in writing
- Focus on focus/ideas
- Spell words with the prefixes mis-, non-, and re-

Lesson 10: Jim Thorpe's Bright Path: Lesson 5

Objectives:

- Use capitalization correctly in writing
- Take notes on factual material
- Spell words with the prefixes mis-, non-, and re-

Lesson 11: Mieko and the Fifth Treasure: Lesson 1

Objectives:

- Listen for clues about characters and theme
- Identify characters and theme
- Summarize characters' goals to understand theme
- Define and identify commas
- Identify the characteristics of a character sketch
- Spell words with the suffixes -less, -ment, and -ness

Lesson 12: Mieko and the Fifth Treasure: Lesson 2

Objectives:

- Use context clues to determine word meaning
- Understand character and theme to improve comprehension
- Use commas correctly in writing
- Write a character sketch with a good conclusion
- Spell words with the suffixes -less, -ment, and -ness

Lesson 13: Mieko and the Fifth Treasure: Lesson 3

Objectives:

- Understand character and theme to improve comprehension
- Summarize to understand character and theme
- Use commas correctly in writing
- Write a character sketch with a good conclusion
- Spell words with the suffixes -less, -ment, and -ness

Lesson 14: Mieko and the Fifth Treasure: Lesson 4

Objectives:
• Compare and contrast across texts
• Use commas correctly in writing
• Write a character sketch with a good conclusion
• Focus on conventions
• Spell words with the suffixes -less, -ment, and -ness

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Lesson 15: Mieko and the Fifth Treasure: Lesson 5

Objectives:
• Understand character and theme to improve comprehension
• Use commas correctly in writing
• Spell words with the suffixes -less, -ment, and -ness

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Lesson 16: To Fly: The Story of the Wright Brothers: Lesson 1

Objectives:
• Listen to identify and evaluate generalizations
• Recognize and evaluate generalizations
• Ask questions to identify and make generalizations
• Define and identify quotations and quotation marks
• Identify the characteristics of an outline
• Spell words with the suffixes -ful, -ly, and -ion

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Lesson 17: To Fly: The Story of the Wright Brothers: Lesson 2

Objectives:
• Use context clues to determine word meaning
• Identify, evaluate, and make generalizations to improve comprehension
• Ask questions to identify, evaluate, and make generalizations
• Use quotations and quotation marks correctly in writing
• Identify the characteristics of an outline
• Spell words with the suffixes -ful, -ly, and -ion

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Lesson 18: To Fly: The Story of the Wright Brothers: Lesson 3

Objectives:
• Identify, evaluate, and make generalizations to improve comprehension
• Ask questions to identify, evaluate, and make generalizations
• Use quotations and quotation marks correctly in writing
• Write an outline that includes important details
• Spell words with the suffixes -ful, -ly, and -ion

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Lesson 19: To Fly: The Story of the Wright Brothers: Lesson 4

Objectives:
• Examine the features of online directories
• Compare and contrast across texts
• Use quotations and quotation marks in writing
• Write an outline that includes important details
• Spell words with the suffixes -ful, -ly, and -ion

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Lesson 20: To Fly: The Story of the Wright Brothers: Lesson 5

Objectives:
• Identify, evaluate, and make generalizations to improve comprehension
• Ask questions to identify, evaluate, and make generalizations
• Use quotations and quotation marks correctly in writing
• Spell words with the suffixes -ful, -ly, and -ion

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Lesson 21: The Man Who Went to the Far Side of the Moon: 1

Objectives:
• Listen for cause-effect relationships
• Understand graphic sources
• Use graphic sources to monitor comprehension
• Use titles correctly in writing
• Understand the use of capitalization in titles
• Identify the characteristics of an informational article
• Spell words with silent consonants

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Lesson 22: The Man Who Went to the Far Side of the Moon: 2

Objectives:
• Use context clues to determine word meaning
• Interpret graphic sources to improve comprehension
• Use graphic sources to monitor comprehension and as a fix-up strategy
• Use titles correctly in writing
• Identify the characteristics of an informational article
• Spell words with silent consonants

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Lesson 23: The Man Who Went to the Far Side of the Moon: 3

Objectives:
• Interpret graphic sources to improve comprehension
• Use graphic sources to monitor comprehension and as a fix-up strategy
• Use titles correctly in writing
• Understand the use of capitalization in titles
• Write an informational article with an effective topic sentence
• Spell words with silent consonants

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Lesson 24: The Man Who Went to the Far Side of the Moon: 4

Objectives:
• Understand the use of capitalization in titles
• Write an informational article with an effective topic sentence
• Focus on sentences
• Spell words with silent consonants

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Lesson 25: Unit Review

Objectives:
• Critically analyze unit theme
• Connect content across selections
• Combine content and skills in meaningful activities that build literacy
• Respond to unit selections through a variety of modalities

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Lesson 26: Reaching for Goals Unit Test
LANGUAGE ARTS 5 A
Language Arts 5 A

In this course, the student will read longer and more complex stories. The student will become a more critical and insightful reader, and continue to examine the author’s purpose and point of view. The student will use his critical thinking and reading comprehension skills to analyze fiction and nonfiction stories presented in Scott Foresman’s Reading Street. The stories are organized according to themes, including challenges, doing the right thing, and artists and inventions. These themes invite the student to view reading as a tool for information gathering, and the themes help the student make connections across science and social studies. In addition to formal reading instruction, the student will establish a daily reading routine and will practice speaking and listening skills.

This course focuses on structure, format, and grammar. The basic writing content concentrates on writing quality sentences, organizing paragraphs, summary writing, and adding detail to writing. The student will continue to use effective planning tools such as graphic organizers, word planners, and outlines to create well-organized compositions.

The student will write creative, factual, descriptive, artistic, and persuasive compositions that tie together all the skills learned in the course. The student will continue to master spelling, grammar, and language skills. Reading Street offers spelling lists based on the patterns and relationship of letters within words. Daily practice activities reinforce the spelling strategies and give the student opportunities to use spelling words in context.

Your student will have access to DimensionU™, which includes online literary games that support your student’s understanding of lesson concepts. You will find the link to DimensionU™ on your student’s home page. Follow the directions to download the necessary software first. Once installed, DimensionU™ allows your student to access DimensionL™ to practice literary skills in a gaming environment.

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Unit 1: Meeting Challenges

In this unit, your student will explore the theme of meeting challenges while learning essential reading and writing skills. The reading selections encompass several genres, including humorous fiction and tall tales, historical fiction, biography, and expository nonfiction. Additionally, your student will explore the unit theme by reading Childtimes, a family memoir spanning three generations. Your student will learn and practice reading comprehension skills, such as understanding plot, characterization, setting, and theme; understanding sequence; and understanding causes and effects. Reading instruction also addresses fluency skills, such as reading with correct phrasing and tone, and vocabulary development strategies, such as understanding word structure, using context clues, and referring to a dictionary. Additionally, your student will learn the steps of the writing process and apply them in weekly writing assignments, which culminate in a personal narrative submitted as the first assessment for his writing portfolio. Writing models, graphic organizers, and checklists for drafting and revising are provided as support. Finally, your student will receive weekly spelling instruction, which focuses on understanding letter patterns and word structure, as well as grammar instruction in using complete sentences and understanding different sentence types.

Objectives:
• Read fiction and nonfiction selections in a variety of genres
• Apply reading comprehension skills and strategies before, during, and after reading
• Learn and follow the steps of the writing process to create compositions in a variety of writing modes
• Understand and use different sentence types correctly in writing
• Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: Frindle: Lesson 1

Objectives:
• Listen for details about character and plot
• Identify the main character and plot of the story
• Identify qualities of a character sketch
• Define and identify four kinds of sentences
• Use end punctuation correctly
• Spell short vowel words with the VCCV and VCV syllable patterns

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Lesson 2: Frindle: Lesson 2

Objectives:
• Identify the main character and plot of the story
• Use prior knowledge to understand story characters and events
• Activate and use prior knowledge to improve comprehension
• Use prior knowledge to help recognize character and plot
• Use word structure to determine word meaning
• Identify qualities of a character sketch

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Lesson 3: Frindle: Lesson 3

Objectives:
• Identify the main character and plot of the story
• Use prior knowledge to understand story characters and events
• Activate and use prior knowledge to improve comprehension
• Use prior knowledge to help recognize character and plot
• Write a character sketch with a strong voice
• Use four kinds of sentences in writing
• Spell short vowel words with the VCCV and VCV syllable patterns

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Lesson 4: Frindle: Lesson 4

Objectives:
• Examine features of fantasy
• Compare and contrast across texts
• Write a character sketch with a strong voice
• Focus on voice
• Use end punctuation correctly
• Use four kinds of sentences in writing
• Spell short vowel words with the VCCV and VCV syllable patterns

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Lesson 5: Frindle: Lesson 5

Objectives:
• Identify the main character and plot of the story
• Use prior knowledge to understand story characters and events
• Activate and use prior knowledge to improve comprehension
• Use prior knowledge to help recognize character and plot
• Use end punctuation correctly
• Use four kinds of sentences in writing
• Spell short vowel words with the VCCV and VCV syllable patterns

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Lesson 6: Thunder Rose: Lesson 1

Objectives:
• Listen for causes and effects
• Identify causes and effects
• Monitor comprehension to understand causes and effects
• Define and identify subjects and predicates
• Identify qualities of a tall tale
• Spell long vowel words with the VCV syllable pattern

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Lesson 7: Thunder Rose: Lesson 2

Objectives:
• Listen for causes and effects
• Identify causes and effects
• Monitor comprehension to understand causes and effects
• Define and identify subjects and predicates
• Identify qualities of a tall tale
• Spell long vowel words with the VCV syllable pattern

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Objectives:
- Identify causes and effects
- Monitor comprehension to understand causes and effects
- Use context clues to determine the meaning of homonyms
- Identify qualities of a tall tale
- Identify and correct fragments and run-ons
- Use subjects and predicates correctly in writing
- Spell long vowel words with the VCV syllable pattern

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Lesson 8: Thunder Rose: Lesson 3
Objectives:
- Identify causes and effects to improve comprehension
- Monitor comprehension to understand cause-and-effect relationships
- Use context clues to determine the meaning of homonyms.
- Write a tall tale using humor and exaggeration to create mood
- Use subjects and predicates correctly in writing
- Spell long vowel words with the VCV syllable pattern

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Lesson 9: Thunder Rose: Lesson 4
Objectives:
- Identify causes and effects to improve comprehension
- Monitor comprehension to understand cause and effect relationships.
- Write a tall tale using humor and exaggeration to create a mood
- Focus on word choice
- Use subjects and predicates correctly in writing
- Spell long vowel words with the VCV syllable pattern

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Lesson 10: Thunder Rose: Lesson 5
Objectives:
- Identify causes and effects to improve comprehension
- Monitor comprehension to understand cause-and-effect relationships
- Use subjects and predicates correctly in writing
- Spell long vowel words with the VCV syllable pattern

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Lesson 11: Island of the Blue Dolphins: Lesson 1
Objectives:
- Listen for clues about setting and theme
- Identify theme and setting
- Use visualizing to better understand the theme and setting
- Define and identify independent and dependent clauses
- Identify qualities of a friendly or thank-you letter
- Spell words with long vowel digraphs ai, ee, ea, oa, and ow

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Lesson 12: Island of the Blue Dolphins: Lesson 2
Objectives:
- Identify setting and theme to improve comprehension
- Use setting to visualize parts of the story
- Use a dictionary or glossary to determine word meaning
- Identify qualities of a friendly or thank you letter
- Define and identify independent and dependent clauses
- Build sentences by combining an independent and a dependent clause
- Spell words with long vowel digraphs ai, ee, ea, oa, and ow

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Lesson 13: Island of the Blue Dolphins: Lesson 3

Objectives:
- Identify setting and theme to improve comprehension
- Use setting to visualize parts of the story
- Use a dictionary or glossary to determine word meaning
- Write a letter using transitions to connect ideas smoothly
- Build sentences by combining an independent and a dependent clause
- Use independent and dependent clauses in writing
- Spell words with long vowel digraphs ai, ee, ea, oa, and ow

Lesson 14: Island of the Blue Dolphins: Lesson 4

Objectives:
- Identify setting and theme to improve comprehension
- Write a letter using transitions to connect ideas smoothly
- Focus on organization/paragraphs
- Build sentences by combining an independent and a dependent clause
- Use independent and dependent clauses in writing
- Spell words with long vowel digraphs ai, ee, ea, oa, and ow

Lesson 15: Island of the Blue Dolphins: Lesson 5

Objectives:
- Identify setting and theme to improve comprehension
- Use setting to visualize parts of the story
- Use independent and dependent clauses in writing
- Spell words with long vowel digraphs ai, ee, ea, oa, and ow

Lesson 16: Satchel Paige: Lesson 1

Objectives:
- Listen to draw conclusions about a character or an event
- Use clue words to determine sequence
- Ask questions to remember sequence
- Identify qualities of a feature article about a famous person
- Define and identify compound and complex sentences
- Spell words that end with –ed and –ing

Lesson 17: Satchel Paige: Lesson 2

Objectives:
- Track the sequence of events to improve comprehension
- Ask questions to understand the sequence of events
- Use context clues to determine word meaning
- Identify qualities of a feature article about a famous person
- Punctuate compound and complex sentences correctly
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
- Spell words that end with –ed and –ing

Lesson 18: Satchel Paige: Lesson 3

Objectives:
- Track the sequence of events to improve comprehension
- Ask questions to understand the sequence of events
Lesson 19: Satchel Paige: Lesson 4

Objectives:
- Track the sequence of events to improve comprehension
- Write a feature article with a recognizable tone
- Focus on word choice
- Punctuate compound and complex sentences correctly
- Use compound and complex sentences correctly in writing
- Spell words that end with -ed and -ing

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Lesson 20: Satchel Paige: Lesson 5

Objectives:
- Track the sequence of events to improve comprehension
- Ask questions to understand the sequence of events
- Punctuate compound and complex sentences correctly
- Use compound and complex sentences correctly in writing
- Spell words that end with -ed and -ing

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Lesson 21: Shutting Out the Sky: Lesson 1

Objectives:
- Listen for causes and effects
- Identify causes and effects
- Use causes and effects to summarize
- Define and identify common and proper nouns
- Spell contractions

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Lesson 22: Shutting Out the Sky: Lesson 2

Objectives:
- Use context clues to determine correct meaning of multiple meaning words
- Identify causes and effects to improve comprehension
- Summarize to identify causes and effects
- Use common and proper nouns correctly in writing
- Spell contractions

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Lesson 23: Shutting Out the Sky: Lesson 3

Objectives:
- Use context clues to determine correct meaning of multiple-meaning words
- Identify causes and effects to improve comprehension
- Summarize to identify causes and effects
- Write a narrative for a test
- Use common and proper nouns correctly in writing
- Spell contractions

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Lesson 24: Shutting Out the Sky: Lesson 4

Objectives:
• Examine the features of e-mail
• Write a narrative for a test
• Focus on word choice
• Use common and proper nouns correctly in writing
• Spell contractions

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Lesson 25: Meeting Challenges: Unit Review

Objectives:
• Prepare for the unit test

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Lesson 26: Meeting Challenges: Unit Test

Objectives:
• Critically analyze unit theme
• Connect content across selections
• Combine content and skills in meaningful activities that build literacy
• Respond to unit selections through a variety of modalities

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Unit 2: Doing the Right Thing

In this unit, your student will explore the theme of doing what is right, while building on the reading and writing skills introduced in Unit 1. This unit provides thorough instruction in reading comprehension skills, such as comparing and contrasting, understanding the author’s purpose, understanding causes and effects, and distinguishing between facts and opinions. The fluency and vocabulary development strategies taught in Unit 1 are reinforced throughout the unit. Your student will further develop her writing skills by composing in a variety of forms, including a summary and a news story submitted as part of her portfolio. Spelling instruction addresses word patterns and endings, including irregular plurals and words with r-controlled vowels. Grammar instruction develops your student’s understanding of nouns and verbs by addressing topics such as regular and irregular plural nouns, action and linking verbs, and subject-verb agreement.

Objectives:
• Read fiction and nonfiction selections in a variety of genres
• Apply reading comprehension skills and strategies before, during, and after reading
• Learn and follow the steps of the writing process to create compositions in a variety of writing modes
• Understand the characteristics of nouns and verbs and use them correctly in writing
• Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: Inside Out: Lesson 1

Objectives:
• Listen to compare and contrast
• Compare and contrast
• Answer questions to compare and contrast
• Define and identify regular and irregular plural nouns
• Identify qualities of a summary
• Spell words with consonant digraphs th, sh, ch, ph

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Lesson 2: Inside Out: Lesson 2

Objectives:
• Compare and contrast
• Answer questions to compare and contrast
• Understand how to eliminate wordiness from writing
• Use regular and irregular plural nouns in writing

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Lesson 3: Inside Out: Lesson 3

Objectives:
- Compare and contrast to improve comprehension
- Answer questions to compare and contrast
- Use word structure to determine word meaning
- Understand how to eliminate wordiness from writing
- Use regular and irregular plural nouns in writing
- Spell words with consonant digraphs th, sh, ch, ph

Lesson 4: Inside Out: Lesson 4

Objectives:
- Examine features of e-mails
- Compare and contrast across texts
- Understand how to eliminate wordiness from writing
- Focus on focus/ideas
- Use regular and irregular plural nouns in writing
- Spell words with consonant digraphs th, sh, ch, ph

Lesson 5: Inside Out: Lesson 5

Objectives:
- Compare and contrast to improve comprehension
- Answer questions to compare and contrast
- Use regular and irregular plural nouns in writing
- Spell words with consonant digraphs th, sh, ch, ph

Lesson 6: Passage to Freedom: Lesson 1

Objectives:
- Listen for clues to author’s purpose
- Determine author’s purpose
- Monitor author’s purpose to help comprehension
- Identify qualities of a story review or critique
- Define and identify possessive nouns
- Spell irregular plural words

Lesson 7: Passage to Freedom: Lesson 2

Objectives:
- Identify author’s purpose
- Determine author’s purpose to help monitor comprehension
- Use dictionaries and glossaries to determine meaning of unfamiliar words
- Understand how to support ideas in a review
- Use possessive nouns in writing
- Spell irregular plural words

Lesson 8: Passage to Freedom: Lesson 3

Objectives:
- Identify author’s purpose
- Determine author’s purpose to help monitor comprehension
- Use dictionaries and glossaries to determine meaning of unfamiliar words
• Understand how to support ideas in a review
• Use possessive nouns in writing
• Spell irregular plural words

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Lesson 9: Passage to Freedom: Lesson 4

Objectives:
• Examine features of an autobiography
• Compare and contrast across texts
• Understand how to support ideas in a review
• Focus on focus/ideas
• Use possessive nouns in writing
• Spell irregular plural words

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Lesson 10: Passage to Freedom: Lesson 5

Objectives:
• Identify author’s purpose
• Determine author’s purpose to help monitor comprehension
• Use possessive nouns in writing
• Spell irregular plural words

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Lesson 11: The Ch'i-lin Purse: Lesson 1

Objectives:
• Listen to compare and contrast
• Compare and contrast
• Use comparisons and contrasts to predict what will happen next
• Define and identify action and linking verbs
• Identify qualities of a news story
• Spell words with r-controlled vowels

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Lesson 12: The Ch'i-lin Purse: Lesson 2

Objectives:
• Compare and contrast
• Use comparisons and contrasts to predict what will happen next
• Use word structure to identify Greek and Latin roots in unknown words
• Answer 5 Ws and How for a news story
• Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
• Use action and linking verbs in writing
• Spell words with r-controlled vowels

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Lesson 13: The Ch'i-lin Purse: Lesson 3

Objectives:
• Compare and contrast
• Use comparisons and contrasts to predict what will happen next
• Use word structure to identify Greek and Latin roots in unknown words
• Answer 5 Ws and How for a news story
• Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
• Use action and linking verbs in writing
• Spell words with r-controlled vowels

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Lesson 14: The Ch'i-lin Purse: Lesson 4

Objectives:
• Examine features of a fable
• Answer 5 Ws and How for a news story
• Focus on organization/paragraphs
• Use action and linking verbs in writing
• Spell words with r-controlled vowels

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Lesson 15: The Ch'i-lin Purse: Lesson 5

Objectives:
• Compare and contrast people, events, and cultures
• Use compare and contrast to predict what will happen next in a story
• Use action and linking verbs in writing
• Spell words with r-controlled vowels

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Lesson 16: Jane Goodall’s 10 Ways to Help Save Wildlife: 1

Objectives:
• Listen for statements of fact and opinion
• Identify statements of fact and opinion
• Ask questions to differentiate statements of fact and opinion
• Define and identify main and helping verbs
• Identify characteristics of well-written rules
• Spell words with final syllables -en, -an, -el, -le, -il

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Lesson 17: Jane Goodall’s 10 Ways to Help Save Wildlife: 2

Objectives:
• Use context clues to determine word meaning
• Recognize statements of fact and opinion to improve comprehension
• Ask questions to distinguish between fact and opinion and verify facts
• Identify characteristics of well-written rules
• Use main and helping verbs in writing
• Spell words with final syllables –en, -an, -el, -le, -il

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Lesson 18: Jane Goodall’s 10 Ways to Help Save Wildlife: 3

Objectives:
• Recognize statements of fact and opinion to improve comprehension
• Ask questions to distinguish between fact and opinion and verify facts
• State and follow a purpose for writing
• Use main and helping verbs in writing
• Spell words with final syllables –en, -an, -el, -le, -il

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Lesson 19: Jane Goodall’s 10 Ways to Help Save Wildlife: 4

Objectives:
• Examine features of expository nonfiction
• Compare and contrast across texts
• State and follow a purpose for writing
• Focus on word choice
• Use main and helping verbs in writing
• Spell words with final syllables –en, -an, -el, -le, -il

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Lesson 20: Jane Goodall’s 10 Ways to Help Save Wildlife: 5

Objectives:
- Recognize statements of fact and opinion to improve comprehension
- Ask questions to distinguish between fact and opinion and verify facts
- Use main and helping verbs in writing
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
- Spell words with final syllables –en, -an, -el, -le, -il

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Lesson 21: The Midnight Ride of Paul Revere: Lesson 1

Objectives:
- Listen to understand sequence
- Determine the sequence of events
- Use graphic organizers to follow sequence
- Define and identify subject-verb agreement
- Spell words that end with er, ar, and or

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Lesson 22: The Midnight Ride of Paul Revere: Lesson 2

Objectives:
- Use word structure to determine the meaning of unfamiliar verbs
- Sequence events to improve comprehension
- Use graphic organizers to understand the sequence of events
- Use subjects and verbs that agree in writing
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
- Spell words that end with er, ar, and or

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Lesson 23: The Midnight Ride of Paul Revere: Lesson 3

Objectives:
- Use word structure to determine the meaning of unfamiliar verbs
- Sequence events to improve comprehension
- Use graphic organizers to understand the sequence of events
- Effectively and efficiently find, evaluate, and communicate information related to an inquiry question using electronic sources
- Write an interview for a test
- Use subjects and verbs that agree in writing
- Spell words that end with er, ar, and or

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Lesson 24: The Midnight Ride of Paul Revere: Lesson 4

Objectives:
- Examine the features of a Web page
- Sequence events to improve comprehension
- Write an interview for a test
- Focus on organization
- Use subjects and verbs that agree in writing
- Spell words that end with er, ar, and or

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Lesson 25: Unit Review

Objectives:
- Critically analyze unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy

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Lesson 26: Doing the Right Thing: Unit Test

Unit 3: Inventors and Artists

In this unit, your student will explore the theme of how inventors and artists have made an impact on the world. He will read a variety of selections, focusing primarily on biography and other expository nonfiction selections. Reading instruction will help your student to understand main ideas and details, identify facts and opinions, and use graphic sources of information. Throughout the unit, your student will continue to practice fluency skills, as well as vocabulary development strategies such as understanding word roots, context clues, and word structure. He will gain additional confidence as a writer as he learns to compose longer works, including a skit and a comparison/contrast essay submitted as part of the writing portfolio. Spelling instruction addresses a variety of topics. Grammar instruction focuses on verb forms and prepositions.

Objectives:
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Follow the steps of the writing process to create compositions in a variety of writing modes
- Understand the characteristics of verbs and prepositional phrases and use them correctly in writing
- Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: Wings for the King: Lesson 1

Objectives:
- Listen for clues about author’s purpose
- Recognize author’s purpose
- Use story structure to understand author’s purpose
- Define and identify past, present, and future tenses
- Identify characteristics of a well-written skit
- Spell words with schwa

Lesson 2: Wings for the King: Lesson 2

Objectives:
- Use context clues to determine the correct meaning of multiple-meaning words
- Understand story structure in a play
- Identify author’s purpose to clarify the story structure
- Use powerful verbs in writing
- Use past, present, and future tenses in writing
- Spell words with schwa

Lesson 3: Wings for the King: Lesson 3

Objectives:
- Use context clues to determine the correct meaning of multiple-meaning words
- Understand story structure in a play
- Identify author’s purpose to clarify the story structure
- Use powerful verbs in writing
- Use past, present, and future tenses in writing
- Spell words with schwa

Lesson 4: Wings for the King: Lesson 4

Objectives:
- Use context clues to determine the correct meaning of multiple-meaning words
- Understand story structure in a play
- Identify author’s purpose to clarify the story structure
- Use powerful verbs in writing
- Use past, present, and future tenses in writing
- Spell words with schwa
Objectives:
- Examine features of narrative nonfiction
- Compare and contrast across texts
- Use powerful verbs in writing
- Use past, present, and future tenses in writing
- Focus on conventions
- Spell words with schwa

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Lesson 5: Wings for the King: Lesson 5

Objectives:
- Understand story structure in a play
- Identify author’s purpose to clarify the story structure
- Use past, present, and future tenses in writing
- Spell words with schwa
- Use context clues to determine the correct meaning of multiple-meaning words

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Lesson 6: Leonardo’s Horse: Lesson 1

Objectives:
- Listen for the main idea
- Determine main idea and identify details
- Use main ideas and details to summarize
- Identify characteristics of a well-written question/answer essay
- Write a question/answer essay that sticks to a topic
- Spell compound words

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Lesson 7: Leonardo’s Horse: Lesson 2

Objectives:
- Identify main idea and supporting details to improve comprehension
- Summarize to identify main idea
- Use word structure to determine word meaning
- Identify characteristics of a well-written question/answer essay
- Use principal parts of regular verbs in writing
- Spell compound words

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Lesson 8: Leonardo’s Horse: Lesson 3

Objectives:
- Identify main idea and supporting details to improve comprehension
- Summarize to identify main idea
- Use word structure to determine word meaning
- Stick to the topic in writing
- Use principal parts of regular verbs in writing
- Spell compound words

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Lesson 9: Leonardo’s Horse: Lesson 4

Objectives:
- Examine features of narrative nonfiction
- Compare and contrast across texts
- Stick to the topic in writing
- Focus on focus/ideas
- Use principal parts of regular verbs in writing
- Spell compound words

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Lesson 10: Leonardo's Horse: Lesson 5

Objectives:
- Identify main idea and supporting details to improve comprehension
- Summarize to identify main idea
- Use principal parts of regular verbs in writing
- Spell compound words

Lesson 11: The Dinosaurs of Waterhouse Hawkins: Lesson 1

Objectives:
- Listen for statements of fact and opinion
- Identify statements of fact and opinion
- Identify characteristics of a well-written feature story
- Define and identify principal parts of irregular verbs
- Spell words with consonant sounds /j/, /ks/, and /s/

Lesson 12: The Dinosaurs of Waterhouse Hawkins: Lesson 2

Objectives:
- Identify statements of fact and opinion to improve comprehension
- Use statements of fact and opinion to make predictions as you read
- Use context clues to determine the meaning of homonyms
- Show understanding of paragraph structure
- Use principal parts of irregular verbs in writing
- Spell words with consonant sounds /j/, /ks/, and /s/

Lesson 13: The Dinosaurs of Waterhouse Hawkins: Lesson 3

Objectives:
- Identify statements of fact and opinion to improve comprehension
- Use statements of fact and opinion to make predictions as you read
- Use context clues to determine the meaning of homonyms
- Show understanding of paragraph structure
- Use principal parts of irregular verbs in writing
- Spell words with consonant sounds /j/, /ks/, and /s/

Lesson 14: The Dinosaurs of Waterhouse Hawkins: Lesson 4

Objectives:
- Examine features of interviews
- Compare and contrast across texts
- Show understanding of paragraph structure
- Focus on organization/paragraphs
- Use principal parts of irregular verbs in writing
- Spell words with consonant sounds /j/, /ks/, and /s/

Lesson 15: The Dinosaurs of Waterhouse Hawkins: Lesson 5

Objectives:
- Identify statements of fact and opinion to improve comprehension
- Use statements of fact and opinion to make predictions as you read
- Use principal parts of irregular verbs in writing
- Spell words with consonant sounds /j/, /ks/, and /s/

Appendix A.2.a Language Arts Course Guides

Language Arts 5 A
Lesson 16: Mahalia Jackson: Lesson 1

Objectives:
• Listen for main idea
• Determine main idea and identify details
• Use graphic organizers to figure out main idea and details
• Define and identify principal parts of troublesome verbs
• Identify characteristics of a description
• Spell words with two consonants that stand for one sound

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Lesson 17: Mahalia Jackson: Lesson 2

Objectives:
• Use antonyms as context clues to determine word meaning
• Identify main ideas and supporting details to improve comprehension
• Use graphic organizers to help determine main ideas
• Use specific words to enhance a description
• Spell words with two consonants that stand for one sound

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Lesson 18: Mahalia Jackson: Lesson 3

Objectives:
• Use antonyms as context clues to determine word meaning
• Identify main ideas and supporting details to improve comprehension
• Use graphic organizers to help determine main ideas
• Use specific words to enhance a description
• Use principal parts of troublesome verbs in writing
• Spell words with two consonants that stand for one sound

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Lesson 19: Mahalia Jackson: Lesson 4

Objectives:
• Examine features of poetry
• Compare and contrast across texts
• Use specific words to enhance a description
• Focus on word choice
• Use principal parts of troublesome verbs in writing
• Spell words with two consonants that stand for one sound

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Lesson 20: Mahalia Jackson: Lesson 5

Objectives:
• Identify main ideas and supporting details to improve comprehension
• Use principal parts of troublesome verbs in writing
• Spell words with two consonants that stand for one sound

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Lesson 21: Special Effects in Film and Television: Lesson 1

Objectives:
• Listen for details and facts
• Interpret graphic sources
• Use prior knowledge to understand graphic sources and increase comprehension
• Define and identify prepositions and prepositional phrases
• Spell words with prefixes un-, de-, and dis-

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Lesson 22: Special Effects in Film and Television: Lesson 2

Objectives:
- Use word structure to determine the meaning of words with prefixes
- Use graphic sources to improve comprehension
- Use prior knowledge to understand graphic sources
- Use prepositions and prepositional phrases in writing
- Spell words with prefixes un-, de-, and dis-
- Define and identify prepositions and prepositional phrases

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Lesson 23: Special Effects in Film and Television: Lesson 3

Objectives:
- Use word structure to determine the meaning of words with prefixes
- Use graphic sources to improve comprehension
- Use prior knowledge to understand graphic sources
- Write expository essay for a test
- Use prepositions and prepositional phrases in writing
- Spell words with prefixes un-, de-, and dis-

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Lesson 24: Special Effects in Film and Television: Lesson 4

Objectives:
- Examine the features of search engines
- Write expository essay for a test
- Focus on sentences
- Use prepositions and prepositional phrases in writing
- Spell words with prefixes un-, de-, and dis-

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Lesson 25: Inventors and Artists: Unit Review

Objectives:
- Critically analyze unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy
- Respond to unit selections through a variety of modalities

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Lesson 26: Inventors and Artists Unit Test
LANGUAGE ARTS 5 B
Language Arts 5 B

In this course, the student will read longer and more complex stories. The student will become a more critical and insightful reader, and continue to examine the author’s purpose and point of view. The student will use his critical thinking and reading comprehension skills to analyze fiction and nonfiction stories presented in Scott Foresman’s Reading Street. The stories are organized according to themes, including adaptations, adventurers, and the unexpected. These themes invite the student to view reading as a tool for information gathering, and the themes help the student make connections across science and social studies. In addition to formal reading instruction, the student will establish a daily reading routine and will practice speaking and listening skills.

This course focuses on structure, format, and grammar. The basic writing content concentrates on writing quality sentences, organizing paragraphs, summary writing, and adding detail to writing. The student will continue to use effective planning tools such as graphic organizers, word planners, and outlines to create well-organized compositions.

The student will write creative, factual, descriptive, artistic, and persuasive compositions that tie together all the skills learned in the course. The student will continue to master spelling, grammar, and language skills. Reading Street offers spelling lists based on the patterns and relationship of letters within words. Daily practice activities reinforce the spelling strategies and give the student opportunities to use spelling words in context.

Your student will have access to DimensionU™, which includes online literary games that support your student’s understanding of lesson concepts. You will find the link to DimensionU™ on your student’s home page. Follow the directions to download the necessary software first. Once installed, DimensionU™ allows your student to access DimensionL™ to practice literary skills in a gaming environment.

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Unit 1: Adapting

In this unit, your student will explore the theme of how people and animals adapt to new and challenging situations. She will read a variety of selections including prose, drama, and nonfiction selections. Reading instruction will help your student draw conclusions, generalize, and use graphic sources of information. Throughout the unit, your student will continue to practice fluency skills, as well as vocabulary development strategies such as understanding word roots, context clues, and word structure. She will gain additional confidence as a writer as she learns to compose longer works, including an e-mail, journal entry, narrative story, play, and descriptive piece. Spelling instruction addresses a variety of topics. Grammar instruction focuses on pronouns and antecedents.

Objectives:
• Read fiction and nonfiction selections in a variety of genres
• Apply reading comprehension skills and strategies before, during, and after reading
• Follow the steps of the writing process to create compositions in a variety of writing modes
• Understand the characteristics of pronouns and use them correctly in writing
• Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: Weslandia: Lesson 1

Objectives:
• Listen to draw conclusions
• Draw conclusions
• Draw conclusions to answer questions
• Define and identify subject and object pronouns
• Identify the characteristics of an e-mail
• Spell words from different cultures

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Lesson 2: Weslandia: Lesson 2

Objectives:
• Use word structure and word endings to determine meaning
Lesson 3: Weslandia: Lesson 3

Objectives:
- Draw conclusions to improve comprehension
- Answer questions to help draw conclusions
- Use word structure and word endings to determine meaning
- Use subject and object pronouns in writing
- Write an e-mail that refers to a text
- Spell words from different cultures

Lesson 4: Weslandia: Lesson 4

Objectives:
- Examine features of poetry
- Compare and contrast across texts
- Write an e-mail that refers to a text
- Use subject and object pronouns in writing
- Focus on conventions
- Spell words from different cultures

Lesson 5: Weslandia: Lesson 5

Objectives:
- Use word structure and word endings to determine meaning
- Draw conclusions to improve comprehension
- Answer questions to help draw conclusions
- Use subject and object pronouns in writing
- Write an e-mail that refers to a text
- Spell words from different cultures

Lesson 6: Stretching Ourselves: Lesson 1

Objectives:
- Listen for generalizations
- Identify and make generalizations
- Use generalizations to predict
- Define and identify pronouns and antecedents
- Identify the characteristics of a journal entry
- Spell words with prefixes over-, under-, sub-, super-, out-

Lesson 7: Stretching Ourselves: Lesson 2

Objectives:
- Recognize and make generalizations to improve comprehension
- Use generalizations to predict
- Write a journal entry that elaborates on a topic
- Use context clues to determine word meaning
- Use pronouns that agree with their antecedents
- Use pronouns and antecedents in writing
- Spell words with prefixes over-, under-, sub-, super-, out-
Lesson 8: Stretching Ourselves: Lesson 3

Objectives:
- Use context clues to determine word meaning
- Recognize and make generalizations to improve comprehension
- Use generalizations to predict
- Use pronouns that agree with their antecedents
- Use pronouns and antecedents in writing
- Write a journal entry that elaborates on a topic
- Spell words with prefixes over-, under-, sub-, super-, out-

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Lesson 9: Stretching Ourselves: Lesson 4

Objectives:
- Examine features of expository nonfiction
- Compare and contrast across texts
- Use pronouns that agree with their antecedents
- Use pronouns and antecedents in writing
- Write a journal entry that elaborates on a topic
- Focus on focus/ideas
- Spell words with prefixes over-, under-, sub-, super-, out-

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Lesson 10: Stretching Ourselves: Lesson 5

Objectives:
- Use context clues to determine word meaning
- Recognize and make generalizations to improve comprehension
- Use generalizations to predict
- Use pronouns that agree with the antecedents
- Use pronouns and antecedents in writing
- Spell words with prefixes over-, under-, sub-, super-, out-

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Lesson 11: Exploding Ants: Lesson 1

Objectives:
- Listen to identify author's purpose
- Use graphic sources to aid comprehension
- Monitor comprehension by using graphic sources
- Define and identify possessive pronouns
- Identify the characteristics of a story
- Spell homophones

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Lesson 12: Exploding Ants: Lesson 2

Objectives:
- Use context clues and synonyms to determine word meaning
- Use graphic sources to improve understanding of text
- Monitor comprehension by using graphic sources
- Use possessive pronouns in writing
- Write a story about an animal, using words, style, and tone to create a mood
- Define and identify possessive pronouns
- Spell homophones

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Lesson 13: Exploding Ants: Lesson 3

Objectives:
- Use context clues and synonyms to determine word meaning
Lesson 14: Exploding Ants: Lesson 4

Objectives:
• Examine features of experiments
• Compare and contrast across texts
• Write a story about an animal, using words, style, and tone to create a mood
• Use possessive pronouns in writing
• Focus on word choice
• Spell homophones

Lesson 15: Exploding Ants: Lesson 5

Objectives:
• Use context clues and synonyms to determine word meaning
• Use graphic sources to improve understanding of text
• Monitor comprehension by using graphic sources
• Use possessive pronouns in writing
• Spell homophones

Lesson 16: The Stormi Giovanni Club: Lesson 1

Objectives:
• Listen for generalizations
• Identify and make generalizations
• Generalize to understand story structure
• Define and identify indefinite and reflexive pronouns
• Identify the characteristics of a letter of advice
• Identify and spell suffixes -ible and -able

Lesson 17: The Stormi Giovanni Club: Lesson 2

Objectives:
• Use context clues to determine word meaning
• Generalize about text to improve comprehension
• Use story structure to help support generalizations
• Use definite and reflexive pronouns in writing
• Write advice to a student at a new school
• Identify and spell suffixes -ible and -able

Lesson 18: The Stormi Giovanni Club: Lesson 3

Objectives:
• Generalize about text to improve comprehension
• Use story structure to help support generalizations
• Write advice to a student at a new school
• Use context clues to determine word meaning
• Use indefinite and reflexive pronouns in writing
• Identify and spell suffixes -ible and -able
Lesson 19: The Stormi Giovanni Club: Lesson 4

Objectives:
- Examine features of newspaper articles
- Compare and contrast across texts
- Use indefinite and reflexive pronouns in writing
- Write advice to a student at a new school
- Focus on voice
- Identify and spell suffixes -ible and -able

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Lesson 20: The Stormi Giovanni Club: Lesson 5

Objectives:
- Use context clues to determine word meaning
- Generalize about text to improve comprehension
- Use story structure to help support generalizations
- Use indefinite and reflexive pronouns in writing
- Identify and spell suffixes -ible and -able

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Lesson 21: The Gymnast: Lesson 1

Objectives:
- Listen to draw conclusions
- Draw conclusions using information in the text and prior knowledge
- Visualize to draw conclusions
- Define and identify pronouns who and whom as subjects and objects
- Write a description for a test
- Spell words with negative prefixes

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Lesson 22: The Gymnast: Lesson 2

Objectives:
- Use word structure and suffixes to determine word meaning
- Draw conclusions using information in the text and prior knowledge
- Visualize to draw conclusions about a selection
- Practice using sensory details in writing
- Use who and whom correctly in writing
- Identify key words in a prompt
- Spell words with negative prefixes

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Lesson 23: The Gymnast: Lesson 3

Objectives:
- Use word structure and suffixes to determine word meaning
- Draw conclusions using information in the text and prior knowledge
- Visualize to draw conclusions about a selection
- Use who and whom correctly in writing
- Identify key words in a prompt
- Spell words with negative prefixes

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Lesson 24: The Gymnast: Lesson 4

Objectives:
- Use who and whom correctly in writing
- Identify key words in a prompt
- Focus on word choice
- Spell words with negative prefixes
Lesson 25: Unit Review

Objectives:
- Critically analyze unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy
- Respond to unit selections through a variety of modalities

Lesson 26: Adapting Unit Test

Unit 2: Adventurers

In this unit, your student will explore the theme of how people seek and experience adventures. She will read a variety of selections including humorous and science fiction, narrative and expository nonfiction, as well as an interview. Reading instruction will help your student use graphic sources, recognize character, plot, and author's purpose as well as cause and effect. Throughout the unit, your student will continue to practice fluency skills, as well as vocabulary development strategies, such as using a dictionary or glossary, context clues, and word structure. She will gain additional confidence as a writer as she learns to compose longer works, including an editorial, biographical sketch, and advertisement. Spelling instruction addresses a variety of topics. Grammar instruction includes contractions, negatives, adverbs, and adjectives.

Objectives:
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Follow the steps of the writing process to create compositions in a variety of writing modes
- Understand the characteristics of contractions, adjectives, articles, and adverbs and use them correctly in writing
- Apply knowledge of letter patterns and word structure to spell words correctly

Lesson 1: The Three-Century Woman: Lesson 1

Objectives:
- Listen for clues about character and plot
- Identify character and plot
- Activate and use prior knowledge to enhance understanding of character and plot
- Identify the characteristics of an editorial
- Define and identify contractions and negatives
- Use contractions and negatives in writing
- Spell multisyllabic words

Lesson 2: The Three-Century Woman: Lesson 2

Objectives:
- Identify characters and plot to improve comprehension
- Activate and use prior knowledge to enhance understanding of characters and plot
- Identify the characteristics of an editorial
- Write an editorial providing support for your argument
- Define and identify contractions and negatives
- Use contractions and negatives in writing
- Spell multisyllabic words

Lesson 3: The Three-Century Woman: Lesson 3

Objectives:
- Identify characters and plot to improve comprehension
• Activate and use prior knowledge to enhance understanding of characters and plot
• Identify the characteristics of an editorial
• Write an editorial providing support for your argument
• Define and identify contractions and negatives
• Use contractions and negatives in writing
• Spell multisyllabic words

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Lesson 4: The Three-Century Woman: Lesson 4

Objectives:
• Examine features of a short story
• Compare and contrast across texts
• Write an editorial providing support for your argument
• Use contractions and negatives in writing
• Focus on focus/ideas
• Spell multisyllabic words

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Lesson 5: The Three-Century Woman: Lesson 5

Objectives:
• Activate and use prior knowledge to enhance understanding of characters and plot
• Identify characters and plot to improve comprehension
• Use contractions and negatives correctly in writing
• Spell multisyllabic words

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Lesson 6: The Unsinkable Wreck of the R.M.S. Titanic: 1

Objectives:
• Listen for details and facts
• Use graphic sources to improve comprehension
• Ask questions based on graphic sources
• Identify the characteristics of a problem-solution essay
• Define and identify adjectives and articles
• Use adjectives and articles in writing
• Spell words with unusual spellings

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Lesson 7: The Unsinkable Wreck of the R.M.S. Titanic: 2

Objectives:
• Use a dictionary or glossary to find meanings of unfamiliar words
• Use graphic sources to improve comprehension
• Define and identify adjectives and articles
• Use adjectives and articles in writing
• Spell words with unusual spellings

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Lesson 8: The Unsinkable Wreck of the R.M.S. Titanic: 3

Objectives:
• Use graphic sources to improve comprehension
• Ask questions based on graphic sources
• Use adjectives and articles in writing
• Write a problem-solution essay using persuasive words
• Spell words with unusual spellings

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Lesson 9: The Unsinkable Wreck of the R.M.S. Titanic: 4

Objectives:

• Examine features of adventure fiction
• Compare and contrast across texts
• Use adjectives and articles correctly in writing
• Focus on word choice
• Spell words with unusual spellings

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Lesson 10: The Unsinkable Wreck of the R.M.S. Titanic: 5

Objectives:

• Use graphic sources to improve comprehension
• Ask questions based on graphic sources
• Use adjectives and articles in writing
• Spell words with unusual spellings

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Lesson 11: Talk with an Astronaut: Lesson 1

Objectives:

• Build vocabulary by finding words related to the lesson concept
• Listen for clues to author's purpose
• Identify the characteristics of a biographical sketch
• Write a biographical sketch that includes quotations
• Focus on sentences
• Spell words with Greek word parts

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Lesson 12: Talk with an Astronaut: Lesson 2

Objectives:

• Identify author's purpose
• Monitor comprehension to determine author's purpose
• Identify the characteristics of a biographical sketch
• Write a biographical sketch that includes quotations
• Define and identify the adjectives this, that, these, and those
• Use this, that, these, and those in writing
• Spell words with Greek word parts

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Lesson 13: Talk with an Astronaut: Lesson 3

Objectives:

• Identify author's purpose
• Monitor comprehension to determine author's purpose
• Identify the characteristics of a biographical sketch
• Write a biographical sketch that includes quotations
• Define and identify the adjectives this, that, these, and those
• Use this, that, these, and those in writing
• Spell words with Greek word parts

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Lesson 14: Talk with an Astronaut: Lesson 4

Objectives:

• Examine the features of online directories
• Compare and contrast across texts
• Write a biographical sketch that includes quotations
• Focus on sentences
• Use this, that, these, and those in writing
• Spell words with Greek word parts

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Lesson 15: Talk with an Astronaut: Lesson 5

Objectives:
- Identify author's purpose
- Use this, that, these, and those in writing
- Spell words with Greek word parts

Lesson 16: Journey to the Center of the Earth: Lesson 1

Objectives:
- Listen for causes and effects
- Identify cause and effect relationships
- Use cause and effect relationships to summarize
- Identify the characteristics of a persuasive letter
- Define and identify comparative and superlative adjectives
- Spell words with Latin roots

Lesson 17: Journey to the Center of the Earth: Lesson 2

Objectives:
- Use context clues to determine word meaning
- Identify causes and effects to improve comprehension
- Use cause and effect relationships to summarize
- Identify the characteristics of a persuasive letter
- Define and identify comparative and superlative adjectives
- Use comparative and superlative adjectives correctly in writing
- Spell words with Latin roots

Lesson 18: Journey to the Center of the Earth: Lesson 3

Objectives:
- Identify causes and effects to improve comprehension
- Use cause and effect relationships to summarize
- Write a persuasive letter tailored to a specific audience
- Use comparative and superlative adjectives correctly in writing
- Spell words with Latin roots

Lesson 19: Journey to the Center of the Earth: Lesson 4

Objectives:
- Examine features of a textbook
- Compare and contrast across texts
- Write a persuasive letter tailored to a specific audience
- Use comparative and superlative adjectives correctly in writing
- Focus on voice
- Spell words with Latin roots

Lesson 20: Journey to the Center of the Earth: Lesson 5
Lesson 21: Ghost Towns of the American West: Lesson 1

Objectives:
- Listen for generalizations
- Recognize generalizations
- Use graphic organizers to test the validity of generalizations
- Define and identify adverbs
- Identify elements of style that improve writing
- Identify and spell related words

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Lesson 22: Ghost Towns of the American West: Lesson 2

Objectives:
- Use word structure to understand prefixes
- Recognize generalizations to improve comprehension
- Use graphic organizers to make generalizations
- Define and identify adverbs
- Use adverbs correctly in writing
- Identify and spell related words

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Lesson 23: Ghost Towns of the American West: Lesson 3

Objectives:
- Recognize generalizations to improve comprehension
- Use graphic organizers to make generalizations
- Use adverbs correctly in writing
- Write an ad that persuades
- Identify elements of style that improve writing
- Identify and spell related words

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Lesson 24: Ghost Towns of the American West: Lesson 4

Objectives:
- Examine features of narrative nonfiction
- Compare and contrast across texts
- Use adverbs correctly in writing
- Identify elements of style that improve writing
- Identify and spell related words

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Lesson 25: Unit Review

Objectives:
- Critically analyze unit theme
- Connect content across selections
- Combine content and skills in meaningful activities that build literacy
- Respond to unit selections through a variety of modalities

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Lesson 26: Adventurers Unit Test

Unit 3: The Unexpected

In this unit, your student will read various selections that explore the theme of what we can learn from encounters with the unexpected. The unit includes a wide range of reading selections, from expository nonfiction to myth, and concludes with Louise Fitzhugh's classic novel *Harriet the Spy*. Reading instruction in the first half of this unit builds on the reading skills introduced in earlier units, such as comparing and contrasting, distinguishing between fact and opinion, and understanding sequence. Fluency and vocabulary development
strategies taught in previous units are reinforced throughout the unit.

In the second half of this unit, your student will read Louise Fitzhugh's novel *Harriet the Spy*. The novel tells the story of a young girl named Harriet M. Welsch, who considers herself a spy and takes her "job" very seriously. Harriet is a sharp observer of her friends, family members, and neighbors, and spends much of her time taking detailed notes about their habits and personality quirks. When Harriet's classmates find and read her notebook, she faces harsh consequences and must struggle to repair the friendships that she holds dear. As your student follows Harriet's intriguing story, he will identify literary elements, analyze characters, and use comprehension strategies to make connections and draw conclusions.

Writing instruction in this unit will develop your student's ability to understand and create informational texts. In addition to learning how to take notes and create an outline, your student will write a humorous poem and an informational article submitted as part of his writing portfolio. Spelling instruction focuses on compound words, words with *ei* and *ie*, and easily confused words. Grammar instruction develops your student’s understanding of writing conventions for punctuation, including commas and quotation marks.

Objectives:
- Read fiction and nonfiction selections in a variety of genres
- Apply reading comprehension skills and strategies before, during, and after reading
- Follow the steps of the writing process to create compositions in a variety of writing modes
- Understand the characteristics of commas, quotation marks, and other punctuation marks
- Apply knowledge of letter patterns and word structure to spell words correctly

**Lesson 1: King Midas and the Golden Touch: Lesson 1**

Objectives:
- Build vocabulary by finding words related to the lesson concept
- Listen to compare and contrast
- Compare and contrast while reading
- Answer questions about comparisons and contrasts
- Define and identify uses for commas
- Identify the characteristics of a humorous poem
- Spell words with *ei* and *ie*

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**Lesson 2: King Midas and the Golden Touch: Lesson 2**

Objectives:
- Compare and contrast to improve comprehension
- Use comparisons and contrasts to answer questions
- Define and identify uses for commas
- Use commas in writing
- Spell words with *ei* and *ie*

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**Lesson 3: King Midas and the Golden Touch: Lesson 3**

Objectives:
- Compare and contrast to improve comprehension
- Use comparisons and contrasts to answer questions
- Identify the characteristics of a humorous poem
- Write a humorous poem
- Spell words with *ei* and *ie*

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**Lesson 4: King Midas and the Golden Touch: Lesson 4**

Objectives:
- Examine features of poetry
- Compare and contrast across texts
- Focus on voice
Lesson 5: King Midas and the Golden Touch: Lesson 5

Objectives:
- Compare and contrast to improve comprehension
- Use comparisons and contrasts to answer questions
- Use commas in writing
- Spell words with ei and ie

Lesson 6: The Hindenburg: Lesson 1

Objectives:
- Build vocabulary by finding words related to the lesson concept
- Listen for facts and opinions
- Identify statements of fact and opinion
- Ask questions to test whether a statement of opinion is valid
- Define and identify uses for quotations and quotation marks
- Identify the characteristics of an outline
- Spell compound words

Lesson 7: The Hindenburg: Lesson 2

Objectives:
- Distinguish between fact and opinion to improve comprehension
- Ask questions to identify statements of fact and opinion
- Use context clues to determine word meaning
- Define and identify uses for quotations and quotation marks
- Use quotations and quotation marks in writing
- Spell compound words

Lesson 8: The Hindenburg: Lesson 3

Objectives:
- Distinguish between fact and opinion to improve comprehension
- Ask questions to identify statements of fact and opinion
- Identify the characteristics of an outline
- Write an outline of a nonfiction text
- Spell compound words

Lesson 9: The Hindenburg: Lesson 4

Objectives:
- Evaluate online sources
- Compare and contrast across texts
- Use quotations and quotation marks in writing
- Focus on organization
- Spell compound words

Lesson 10: The Hindenburg: Lesson 5

Objectives:
- Use context clues to determine word meaning
- Distinguish between fact and opinion to improve comprehension
- Use quotations and quotation marks in writing
- Spell compound words
Lesson 11: Sweet Music in Harlem: Lesson 1

Objectives:
• Build vocabulary by finding words related to the lesson concept
• Listen for sequence
• Identify the characteristics of an informational article
• Define and identify uses for punctuation
• Spell easily confused words

Lesson 12: Sweet Music in Harlem: Lesson 2

Objectives:
• Use context clues to determine the meaning of homographs
• Recognize sequence to improve comprehension
• Use prior knowledge to recognize sequence
• Define and identify uses for punctuation
• Use punctuation in writing
• Spell easily confused words

Lesson 13: Sweet Music in Harlem: Lesson 3

Objectives:
• Recognize sequence to improve comprehension
• Use prior knowledge to recognize sequence
• Identify the characteristics of an informational article
• Write an informational article with effective topic sentences
• Focus on sentences
• Spell easily confused words

Lesson 14: Sweet Music in Harlem: Lesson 4

Objectives:
• Examine features of an author note
• Compare and contrast across texts
• Write an informational article with effective topic sentences
• Focus on sentences
• Use punctuation in writing
• Spell easily confused words

Lesson 15: Sweet Music in Harlem: Lesson 5

Objectives:
• Recognize sequence to improve comprehension
• Use prior knowledge to recognize sequence
• Spell easily confused words

Lesson 16: Setting Background for Harriet the Spy

Objectives:
• Understand the setting of the novel
• Discuss characteristics of a spy
• Read text representing a different time period

Lesson 17: Harriet the Spy: Chapters 1–2

Objectives:
Lesson 18: Harriet the Spy: Chapters 3–4

Objectives:
- Read and analyze the text, then respond to questions
- Analyze characterization
- Analyze relationships between and among characters, setting, and events
- Define vocabulary and identify words in context

Lesson 19: Harriet the Spy: Chapters 5–6

Objectives:
- Read and analyze the text, then respond to questions
- Define vocabulary and identify words in context
- Use details from the text to illustrate the setting
- Identify and explain point of view

Lesson 20: Harriet the Spy: Chapters 7–8

Objectives:
- Read and analyze the text, then respond to questions
- Define vocabulary and identify words in context
- Learn about how an author creates “mood” in a story
- Compose a review of an independent reading selection

Lesson 21: Harriet the Spy: Chapters 9–10

Objectives:
- Read and analyze the text, then respond to questions
- Define vocabulary and identify words in context
- Enrich reading through visualization
- Identify point of view
- Revise and share a review of an independent reading selection

Lesson 22: Harriet the Spy: Chapters 11–13

Objectives:
- Read and analyze the text, then respond to questions
- Define vocabulary and identify words in context
- Describe how Harriet changes in this part of the story

Lesson 23: Harriet the Spy: Chapters 14–16

Objectives:
- Identify and evaluate theme of the novel
- Read and analyze the text, then respond to questions
- Recall all of the elements of the plot
- Define vocabulary and identify words in context

Lesson 24: Harriet the Spy: Review

Objectives:
- Study vocabulary and review the novel

Lesson 25: Harriet the Spy: Test

Lesson 26: Unit Review

Lesson 27: The Unexpected Unit Test
LANGUAGE ARTS 6 A
Language Arts 6 A

In sixth grade, through the study of authors such as Elizabeth Partridge, Gary Soto, and Langston Hughes, the student will ponder such questions as “Is conflict always bad?”; “How do we decide who we are?”; and “How much do our communities shape us?” Short- and long-term research engages the student’s curiosity and critical-thinking skills. The student is encouraged to support these ideas with evidence as the student practices narrative, informative, and persuasive writing.

The student will sharpen and strengthen skills in reading, writing, listening, and speaking. The student is exposed to a wide variety of writing styles to create a sense of curiosity and excitement. The student will improve comprehension of increasingly complex literature and informational texts using a multi-draft reading approach as the student discusses, analyzes, and critiques. The student will learn to make connections between readings, other titles, and the world. The student will also expand an academic vocabulary and build confidence through independent reading. The student will write expository and creative compositions and employ test-taking strategies that are effective for different types of learners.

Unit 1: MS LA Course Overview

In this unit, you will receive a basic overview of the course. You will learn about the course structure built around the Literature series textbook, and preview the different icons and assessments included throughout the course. You will also explore and learn more about interactive reviews, novel units, and Independent Reading roles.

Lesson 1: Getting Started in Middle School Language Arts

Objectives:
• Discuss different types of conflict with your partner
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to conflict
• Preview titles for independent reading

Unit 2: Characters and Conflict

In this unit, you will explore the Big Question: Is conflict always bad? You will read stories multiple times to deepen your understanding of literature and to better understand the author’s craft. You will read literary texts to explore characterization, analyze plot elements, and identify theme and tone. You will read nonfiction texts to understand author’s purpose and explore conflict. Finally, you will distinguish between nouns and pronouns and learn ways to use context clues to help you understand unknown words.

Objectives:
• Make predictions and inferences; analyze plot and characterization; and compare plot devices
• Distinguish between common, proper, and possessive nouns and between personal and possessive pronouns
• Predict, define, and accurately use academic vocabulary words related to conflict
• Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 1: Introducing the Big Question (two-day lesson)

Objectives:
• Discuss different types of conflict with your partner
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to conflict
• Preview titles for independent reading

Lesson 2: Close Reading Workshop: Short Story (two-day lesson)

Objectives:
• Support short story analysis with textual evidence
• Identify a theme of a short story
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a short story interact

Lesson 3: Elements of a Short Story (two-day lesson)

Objectives:
• Support short story analysis with textual evidence
• Analyze the plot of a story
• Identify the structure of a story and its parts

**Lesson 4: First Read: Stray (two-day lesson)**

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Use prior knowledge and details from the text to make and verify predictions

**Lesson 5: Second Read: Stray (two-day lesson)**

Objectives:
• Analyze the plot of a story
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Define and accurately use academic vocabulary words

**Lesson 6: Third Read: Stray (two-day lesson)**

Objectives:
• Analyze the plot of the story
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Define and accurately use academic vocabulary words
• Read and comprehend a variety of texts
• Support story analysis with textual evidence
• Distinguish among common, proper, and possessive nouns

**Lesson 7: WriteToLearn: Cause-and-Effect Essay (two-day lesson)**

Objectives:
• Compose a cause-and-effect essay with relevant facts and examples
• Apply suggested revisions and edits to future written compositions

**Lesson 8: Beginning the Writing Process (two-day lesson)**

Objectives:
• Demonstrate understanding of a cause-and-effect essay in order to begin the prewriting and planning stage of the writing process
• Gather information for a cause-and-effect essay during the prewriting and planning stage of the writing process

**Lesson 9: First Read: The Tail (two-day lesson)**

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Identify and explain what is not directly stated in the text by drawing inferences

**Lesson 10: Second Read: The Tail (two-day lesson)**

Objectives:
• Analyze details about characters that show traits
• Define and accurately use academic vocabulary words
• Use context clues to determine the meaning of words

**Lesson 11: Third Read: The Tail (two-day lesson)**

Objectives:
• Distinguish between personal and possessive pronouns
• Define and accurately use academic vocabulary
• Analyze details about characters that show traits
• Identify and explain what is not directly stated in the text by drawing inferences
• Support story analysis with textual evidence
Lesson 12: Writing the Rough Draft (two-day lesson)

Objectives:
- Analyze idioms and their figurative meanings
- Write an informative essay supported by relevant evidence
- Apply suggested revisions and edits to future written compositions
- Identify and correctly use transitions to link sentences in writing

Lesson 13: Read: Lob’s Girl (two-day lesson)

Objectives:
- Support story analysis with textual evidence
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Predict and define the meaning of academic vocabulary words

Lesson 14: Read: Jeremiah’s Song (two-day lesson)

Objectives:
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how elements of a short story interact
- Support story analysis with textual evidence
- Use context clues to determine the meaning of words
- Predict and define the meaning of academic vocabulary words

Lesson 15: Comparing Foreshadowing and Flashback (two-day lesson)

Objectives:
- Analyze author’s use of foreshadowing and/or flashback

Lesson 16: Writing the Final Draft: Cause-and-Effect Essay (two-day lesson)

Objectives:
- Write a cause-and-effect essay
- Utilize relevant facts and examples to support ideas
- Apply transition words to clarify the relationships among ideas and concepts
- Identify and use correct conventions of English grammar and usage when writing
- Identify and correctly apply using complements to combine sentences to writing
- Apply knowledge of language and its conventions when writing
- Apply revisions and edits to a rough draft

Lesson 17: Text Set (two-day lesson)

Objectives:
- Apply knowledge of language and its conventions when writing, speaking, reading, or listening
- Predict meaning of academic vocabulary words
- Define and accurately use academic vocabulary related to conflict and competition
- Read and analyze literary and informational texts, citing textual evidence to support analysis
- Use details from the text to support claim
- Conduct research using credible sources in order to take notes and use the appropriate format for citing sources
- Compose a discussion board post, drawing evidence from literary and informational texts to support analysis and reflection

Lesson 18: Unit Review (two-day lesson)

Objectives:
Lesson 19: Unit Test

Objectives:
- Make predictions and inferences; analyze plot and characterization; and compare plot devices
- Distinguish between common, proper, and possessive nouns; and personal and possessive pronouns
- Prewrite, draft, revise, and edit a cause-and-effect essay
- Predict, define, and accurately use academic vocabulary words related to conflict
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Unit 3: Life Stories

In this unit, you will explore the Big Question: What is important to know? You will read non-fiction selections multiple times to deepen your understanding of features of non-fiction text and better understand the author’s craft. You will read non-fiction texts to explore main idea, mood, author’s purpose, and point of view. Finally, you will distinguish among regular and irregular verbs and perfect tenses of verbs and learn new vocabulary words.

Objectives:
- Analyze main idea; make predictions; identify narrator and point of view; analyze word choices that contribute to mood; analyze nonfiction texts
- Identify and use principal parts of verbs for regular and irregular verbs in context, use verbs in the perfect tense; maintain subject-verb agreement
- Prewrite, draft, revise, and edit a comparison-and-contrast essay
- Predict, define, and accurately use academic vocabulary words related to learning
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 1: What Is Important to Know?

Objectives:
- Discuss things that are important to learn
- Predict meaning of academic vocabulary words
- Define and accurately use academic vocabulary related to learning
- Preview titles for Independent Reading

Lesson 2: Close Reading Workshop: Types of Nonfiction (two-day lesson)

Objectives:
- Support nonfiction analysis with textual evidence
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Evaluate the organization of key ideas in a selection, using details from the text for support
- Analyze the author’s purpose in a text
- Compose a focused research question and conduct short-term research to answer it

Lesson 3: Elements of Nonfiction (two-day lesson)

Objectives:
- Identify and define elements of nonfiction
- Analyze word choice within nonfiction selections
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Determine how elements of a nonfiction selection offer clues to an author’s purpose or point of view

**Lesson 4: First Read: The Drive-In Movies (two-day lesson)**

Objectives:
• Predict and define the meaning of academic vocabulary words
• Determine a central idea of a nonfiction text
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Use prior knowledge and details from the text to make and verify predictions

**Lesson 5: Second Read: The Drive-In Movies (two-day lesson)**

Objectives:
• Define and accurately use academic vocabulary related to nonfiction
• Determine and analyze the narrator’s point of view
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading

**Lesson 6: Third Read: The Drive-In Movies (two-day lesson)**

Objectives:
• Define and accurately use academic vocabulary related to nonfiction
• Determine and analyze the narrator’s point of view
• Determine a central idea in a nonfiction text
• Support story analysis with textual evidence
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Read and comprehend a variety of texts
• Identify and use principal parts of verbs in a sentence

**Lesson 7: WriteToLearn: Comparison-and-Contrast Essay (two-day lesson)**

Objectives:
• Write comparison-and-contrast essay supported by relevant evidence
• Apply suggested revisions and edits to future written compositions

**Lesson 8: Beginning the Writing Process (two-day lesson)**

Objectives:
• Write and a comparison-and-contrast essay supported by relevant evidence
• Apply suggested revisions and edits to future written compositions

**Lesson 9: First Read: The Pigman & Me (two-day lesson)**

Objectives:
• Predict and define the meaning of academic vocabulary words
• Determine the central idea of a text
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading

**Lesson 10: Second Read: The Pigman & Me (two-day lesson)**

Objectives:
• Define and accurately use academic vocabulary
• Analyze how an author’s word choice affects the way a reader responds to a text

**Lesson 11: Third Read: The Pigman & Me (two-day lesson)**

Objectives:
• Define and accurately use academic vocabulary
• Determine the central idea of a text
• Support story analysis with textual evidence
• Read and comprehend a variety of texts
• Identify and use the perfect tense of verbs in a sentence

**Lesson 12: Writing the Rough Draft (two-day lesson)**

Objectives:
• Use word origins and reference sources to determine the precise meaning of words.
• Write a comparison-and-contrast essay supported by relevant evidence
• Apply suggested revisions and edits to future written compositions
• Identify and correctly apply verb tenses to writing

**Lesson 13: Read: The Seven Wonders of the World (two-day lesson)**

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Use text aids and features to find information
• Support analysis with textual evidence

**Lesson 14: Read: Art, Architecture, and Learning in Egypt (two-day lesson)**

Objectives:
• Use context clues to determine the meaning of words
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Use text aids and features to find information
• Read and comprehend a variety of texts

**Lesson 15: Analyzing Expository Texts (two-day lesson)**

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Use text aids and features to find information
• Read and comprehend a variety of texts

**Lesson 16: Writing the Final Draft (two-day lesson)**

Objectives:
• Write and informative essay supported by relevant evidence
• Apply suggested revisions and edits to future written compositions
• Utilize technology to write a final draft
• Identify and correctly use irregular and troublesome verbs
• Maintain subject-verb agreement in writing
• Apply knowledge of language and its conventions when writing, speaking, reading, or listening

**Lesson 17: Text Set (two-day lesson)**

Objectives:
• Apply knowledge of language and its conventions when writing, speaking, reading, or listening
• Define meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to conflict and competition
• Read and comprehend a variety of texts
• Read and analyze literary and informational texts, citing textual evidence to support analysis
• Use details from the text to support claim
• Conduct research using credible sources in order to take notes and use the appropriate format for citing sources
Lesson 18: Unit Review (two-day lesson)

Objectives:
- Analyze main idea; make predictions; identify narrator and point of view; analyze word choices that contribute to mood; analyze nonfiction texts
- Identify and use principal parts of verbs for regular and irregular verbs in context, use verbs in the perfect tense; maintain subject-verb agreement
- Prewrite, draft, revise, and edit an argumentative text
- Predict, define, and accurately use academic vocabulary words related to learning

Lesson 19: Life Stories

Objectives:
- Analyze main idea; make predictions; identify narrator and point of view; analyze word choices that contribute to mood; analyze nonfiction texts
- Use perfect tense of verbs, regular and irregular verbs; maintain subject-verb agreement
- Prewrite, draft, revise, and edit a comparison-and-contrast essay
- Predict, define, and accurately use academic vocabulary words related to learning
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Unit 4: The Cay

The Cay is narrated by Phillip Enright, a young American expatriate who has moved to the island of Curaçao with his parents. His family relocated to the island following the outbreak of World War II, when Phillip’s father was recruited to work for an oil company and support the war effort. However, when the Germans invade Curaçao, Phillip and his mother try unsuccessfully to return to the United States. Their ship is torpedoed, and Phillip finds himself on a raft with a stranger with whom he has nothing in common. When the two arrive on a deserted island, Phillip and his fellow castaway must learn to work together because their survival depends on it. In this unit, you will identify literary elements, analyze characters, and use comprehension strategies to make connections and draw conclusions.

The Cay is the recommended novel for Language Arts 6. Scott O’Dell’s novel Island of the Blue Dolphins may be read instead of The Cay with prior teacher approval. Lessons and activities for Island of the Blue Dolphins will appear on the lower half of the page. Do not proceed with Island of the Blue Dolphins unless you have received approval from your teacher.

In Island of the Blue Dolphins, twelve-year-old Karana and the people of her native tribe live on a small island in the Pacific Ocean. Their lives are changed forever after strangers come to the island to hunt sea otter. She and her brother are left behind when the islanders head east in search of a better life. Now Karana must figure out how to survive despite loneliness, harsh living conditions, and the vicious wild dogs that are a constant threat. Karana’s courage, perseverance, and intelligence help her discover new things about herself and the place she has always called home.

Objectives:
- Make revise, and confirm predictions based upon prior knowledge
- Respond to literal, inferential, and critical thinking questions before, during, and after reading the text
- Analyze connections between the characters, setting, plot, and theme
- Determine how authors use historical events as a basis to create fictional narratives
- Make inferences and draw conclusions

Lesson 1: Setting Background for The Cay

Objectives:
- Define new vocabulary and identify words in context
• Conduct research to learn background information about the setting of
the story and biographical information about the author
• Synthesize ideas across texts to form a prediction about the novel

Lesson 2: The Cay, Chapters 1–2

Objectives:
• Support text analysis with text evidence
• Describe the role of setting in the novel
• Examine the relationships between and among the characters
• Define new vocabulary and identify words in context

Lesson 3: The Cay, Chapters 3–4

Objectives:
• Support analysis of reading with textual evidence
• Analyze dialogue and interactions between and among characters to
determine their point of view
• Draw conclusions and make inferences using evidence from the text
• Define new vocabulary and identify words in context

Lesson 4: The Cay, Chapters 5–7

Objectives:
• Support analysis of reading with textual evidence
• Analyze how a scene or chapter contributes to the development of the
plot
• Analyze dialogue and interactions between and among characters to
determine differing perspectives
• Draw conclusions and make inferences using evidence from the text
• Define new vocabulary and identify words in context
• Reflect on reading role in writing

Lesson 5: The Cay, Chapters 8–10

Objectives:
• Support analysis of reading with textual evidence
• Examine the development of the plot and its effect on the characters
• Draw conclusions and make inferences using evidence from the text
• Define new vocabulary and identify words in context

Lesson 6: The Cay, Chapters 11–13 (two-day lesson)

Objectives:
• Support analysis of reading with textual evidence
• Determine the theme of a story and examine how it is conveyed through
details in the text
• Draw conclusions and make inferences using evidence from the text
• Define new vocabulary and identify words in context

Lesson 7: The Cay, Chapters 14–16

Objectives:
• Support analysis of reading with textual evidence
• Analyze text clues that serve to foreshadow plot events
• Draw conclusions and make inferences using evidence from the text
• Define new vocabulary and identify words in context

Lesson 8: The Cay, Chapters 17–19

Objectives:
• Support analysis of reading with textual evidence
• Examine the development of the plot and its effect on the characters
• Draw conclusions and make inferences using evidence from the text
• Define new vocabulary and identify words in context
• Reflect on reading role in writing.
LANGUAGE ARTS 6 B
Language Arts 6 B

In sixth grade, through the study of authors such as Elizabeth Partridge, Gary Soto, and Langston Hughes, the student will ponder such questions as "Is conflict always bad?"; "How do we decide who we are?"; and "How much do our communities shape us?" Short- and long-term research engages the student’s curiosity and critical-thinking skills. The student is encouraged to support these ideas with evidence as the student practices narrative, informative, and persuasive writing.

The student will sharpen and strengthen skills in reading, writing, listening, and speaking. The student is exposed to a wide variety of writing styles to create a sense of curiosity and excitement. The student will improve comprehension of increasingly complex literature and informational texts using a multi-draft reading approach as the student discusses, analyzes, and critiques. The student will learn to make connections between readings, other titles, and the world. The student will also expand an academic vocabulary and build confidence through independent reading. The student will write expository and creative compositions and employ test-taking strategies that are effective for different types of learners.

Unit 1: MS LA Course Overview

In this unit, you will receive a basic overview of the course. You will learn about the course structure built around the Literature series textbook, and preview the different icons and assessments included throughout the course. You will also explore and learn more about interactive reviews, novel units, and Independent Reading roles.

Lesson 1: Getting Started in Middle School Language Arts

Unit 2: Rhythm and Rhyme

In this unit, you will explore the Big Question: Do we need words to communicate well? You will read poems multiple times to deepen your understanding of literature and to better understand the author’s craft. You will read poetry to explore the structure of poems, figurative language, sound devices, and imagery. You will practice paraphrasing and drawing conclusions. Finally, you will use adjectives, adverbs, and conjunctions, and use coordinating conjunctions.

Objectives:
- Use context clues; analyze rhythm and rhyme, paraphrase; analyze forms of poetry; analyze imagery
- Identify adjectives and adverbs; use conjunctions and interjections; use coordinating conjunctions
- Predict, define, and accurately use academic vocabulary words related to communication
- Prewrite, draft, revise, and edit an argumentative essay
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 1: Introducing the Big Question

Objectives:
- Discuss ways to communicate with a partner
- Predict meaning of academic vocabulary words
- Define and accurately use academic vocabulary related to communicating
- Preview titles for independent reading

Lesson 2: Close Reading Workshop: Poetry (two-day lesson)

Objectives:
- Support poetry analysis with textual evidence
- Identify the central idea of a poem
- Analyze word choice
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Compose a focused research question and conduct short-term research to answer it

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Lesson 3: Elements of Poetry (two-day lesson)

Objectives:
- Analyze impact of connotation, denotation, rhythm, and rhyme
- Define and identify elements of poetry

Lesson 4: First Read: Poetry Collection 1 (two-day lesson)

Objectives:
- Use context clues to determine the meaning of words
- Predict and define the meaning of academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading.
- Analyze word choice

Lesson 5: Second Read: Poetry Collection 1 (two-day lesson)

Objectives:
- Identify rhythm and rhyme in poems, and analyze their impact on meaning and tone
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Define and accurately use academic vocabulary

Lesson 6: Third Read: Poetry Collection 1 (two-day lesson)

Objectives:
- Analyze word choice
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Cite textual evidence to support analysis
- Define and accurately use academic vocabulary words
- Identify and use adjectives and adverbs
- Read and comprehend a variety of texts

Lesson 7: WriteToLearn: Persuasive Essay (two-day lesson)

Objectives:
- Write a persuasive essay supported by relevant evidence
- Apply suggested revisions and edits to future written compositions

Lesson 8: Beginning the Writing Process (two-day lesson)

Objectives:
- Demonstrate understanding of an argumentative essay in order to begin the prewriting and planning stage of the writing process
- Apply suggested revisions and edits to future written compositions
- Use the appropriate format for citing sources

Lesson 9: First Read: Poetry Collection 3 (two-day lesson)

Objectives:
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Paraphrase central ideas of poems
- Predict and define the meaning of academic vocabulary words

Lesson 10: Second Read: Poetry Collection 3 (two-day lesson)

Objectives:
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze poetic forms
- Define and accurately use academic vocabulary words

Lesson 11: Third Read: Poetry Collection 3 (two-day lesson)

Objectives:
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Cite textual evidence to support analysis
• Define and accurately use academic vocabulary words
• Identify and use conjunctions and interjections
• Read and comprehend a variety of texts

Lesson 12: Writing the Rough Draft (two-day lesson)

Objectives:
• Use context and prior knowledge to determine the meaning of multiple-meaning words
• Use a dictionary to define multiple-meaning words
• Compose a draft of an argumentative essay supported by relevant evidence
• Apply suggested revisions and edits to future written compositions

Lesson 13: Read: Who Knows if the Moon’s (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support poetry analysis with textual evidence

Lesson 14: Read: Dust of Snow (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support poetry analysis with textual evidence

Lesson 15: Comparing Imagery

Objectives:
• Analyze and compare the use of imagery
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support poetry analysis with textual evidence

Lesson 16: Writing the Final Draft (two-day lesson)

Objectives:
• Construct the final draft of an argumentative essay
• Apply suggested revisions and edits to future written compositions
• Identify and use coordinating conjunctions
• Analyze word choice to maintain formal style, using accurate, reasonable wording

Lesson 17: Text Set (three-day lesson)

Objectives:
• Predict the meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to communication
• Read and analyze literary and informational texts, citing textual evidence to support analysis
• Conduct research using credible sources in order to take notes, and use the appropriate format for citing sources
• Compose a discussion board post, drawing evidence from literary and informational texts to support analysis and reflection
• Discuss issues of communication and determination, referencing texts in this unit and personal experience

Lesson 18: Unit Review (two-day lesson)

Objectives:
Lesson 19: Rhythm and Rhyme Unit Test

Objectives:
- Use context clues; analyze rhythm and rhyme; paraphrase; analyze forms of poetry; analyze imagery
- Identify adjectives and adverbs; use conjunctions and interjections; use coordinating conjunctions
- Predict, define, and accurately use academic vocabulary words related to communication
- Prewrite, draft, revise, and edit an argumentative essay
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Unit 3: Adventures and Imagination

In this unit, you will explore the Big Question: How do we decide who we are? You will read dramas multiple times to deepen your understanding of literature and to better understand the author’s craft and purpose. You will read to explore the features of dramas, dialogue and stage directions. You will practice paraphrasing and summarizing. Finally, you will identify participles and gerunds, use prepositional phrases and appositives, and practice combining sentences using phrases.

Objectives:
- Summarize, compare and contrast to analyze author’s purpose
- Identify and use prepositions and prepositional phrases, identify and use appositives and appositive phrases, revise writing using participles
- Predict, define, and accurately use academic vocabulary words related to learning
- Prewrite, draft, revise, and edit a research presentation
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 1: Introducing the Big Question

Objectives:
- Discuss things that are important to learn
- Predict meaning of academic vocabulary words
- Define and accurately use academic vocabulary related to learning
- Preview titles for independent reading

Lesson 2: Close Reading Workshop: Drama (two-day lesson)

Objectives:
- Support analysis of drama with textual evidence
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how elements of a drama interact
- Compose a focused research question and conduct short-term research to answer it

Lesson 3: Elements of Drama

Objectives:
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Identify and define elements of a drama
- Analyze how elements of a drama interact

Lesson 4: First Read: The Phantom Tollbooth, Act I (three-day lesson)
Objectives:
• Predict and define the meaning of academic vocabulary words
• Analyze the plot of a drama
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Summarize key ideas of a drama

Lesson 5: Second Read: The Phantom Tollbooth, Act I (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze the use of dialogue in drama to develop characters and plot

Lesson 6: Third Read: The Phantom Tollbooth, Act I (two-day lesson)

Objectives:
• Identify and use prepositions and appositives
• Define and accurately use academic vocabulary words.
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze the use of dialogue in drama to develop characters and plot
• Support analysis of a drama with textual evidence
• Read and comprehend a variety of texts.

Lesson 7: Planning a Presentation (two-day lesson)

Objectives:
• Conduct short-term research to enhance understanding of drama
• Conduct research using credible sources in order to take notes, and use the appropriate format for citing sources
• Apply suggested revisions and edits to future written compositions
• Demonstrate understanding of a research presentation in order to begin the prewriting and planning stages

Lesson 8: First Read: The Phantom Tollbooth, Act II (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Compare and contrast key ideas of a drama

Lesson 9: Second Read: The Phantom Tollbooth, Act II (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze stage directions in a drama
• Analyze how elements of a drama selection interact

Lesson 10: Third Read: The Phantom Tollbooth, Act II (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support analysis of a drama with textual evidence
• Read and comprehend a variety of texts
• Identify and use participles and gerunds

Lesson 11: Creating a Presentation (two-day lesson)

Objectives:
• Identify the connotations and denotations of words
• Write a research presentation supported by relevant evidence
• Apply suggested revisions and edits to future written compositions
• Compose the rough draft of a research presentation
• Utilize different design and visual elements in order to construct an engaging presentation

Lesson 12: Read: You’re a Good Man, Charlie Brown (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading

Lesson 13: Read: Happiness is a Charming Charlie Brown (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading

Lesson 14: Comparing Author’s Purpose Across Genres

Objectives:
• Support story analysis with textual evidence
• Compare different genres of text
• Analyze author’s purpose

Lesson 15: Publishing the Presentation (two-day lesson)

Objectives:
• Apply revisions and edits to a rough draft
• Compose the final draft of a research presentation
• Utilize different design and visual elements in order to construct an engaging presentation
• Revise choppy writing using participles

Lesson 16: Text Set (three-day lesson)

Objectives:
• Discuss issues about developing insight, referencing texts in this unit and personal experience
• Define and accurately use academic vocabulary related to conflict and competition
• Read and analyze literary and informational texts, citing textual evidence to support analysis
• Use details from the text to support a claim
• Conduct research using credible sources in order to take notes and use the appropriate format for citing sources
• Compose a discussion board post, drawing evidence from literary and informational texts to support analysis and reflection

Lesson 17: Unit Review

Objectives:
• Summarize, compare and contrast to analyze author’s purpose
• Identify and use prepositions and prepositional phrases, identify and use appositives and appositive phrases, revise writing using participles
• Predict, define, and accurately use academic vocabulary words related to learning
• Prewrite, draft, revise, and edit a research presentation

Lesson 18: Adventures and Imagination Unit Test

Objectives:
• Identify and use prepositions and prepositional phrases, identify and use appositives and appositive phrases, revise writing using participles
• Predict, define, and accurately use academic vocabulary words related to identity
Unit 4: Walk Two Moons

In *Walk Two Moons*, 13-year-old Salamanca “Sal” Hiddle narrates the story as she and her grandparents embark on a road trip from Euclid, Ohio, to Lewiston, Idaho. Sal, hurt and confused, struggles to accept the fact that her mother has left her and her father. The family heads to Lewiston, Idaho, where Sal hopes to be able to convince her mother to return home. While on the road, they stop to visit historic landmarks and experience the beautiful landscape of the Midwest. To pass the time in the car, Sal tells her grandparents a peculiar story about her best friend, Phoebe Winterbottom. It is this story within a story that helps Sal better understand her mother’s decision and begin to heal. This road trip changes their lives and impacts their family forever. In this unit, you will identify literary elements, analyze characters, and use comprehension strategies to make connections and draw conclusions.

*Walk Two Moons* is the recommended novel for Language Arts 8. *Esperanza Rising* may be read instead of *Walk Two Moons* with prior teacher approval. Lessons and activities for *Esperanza Rising* will appear on the lower half of the page. Do not proceed with *Esperanza Rising* unless you have received approval from your teacher.

In *Esperanza Rising*, twelve-year-old Esperanza Ortega and her family live on a sprawling ranch in Mexico. As the only child of a wealthy couple, she is showered with love and given the best of everything. After a series of tragic events, Esperanza immigrates to the United States and joins the large population of migrants heading to California to find work during the Great Depression. After settling in a farm camp in the San Joaquin Valley, tragedy strikes again, forcing Esperanza to develop the strength and perseverance needed to hold on to the new life to which she is beginning to adjust.

Objectives:
- Respond to literal, inferential, and critical thinking questions before, during, and after reading the text
- Make inferences and draw conclusions
- Analyze connections between the characters, setting, plot, and theme
- Examine the author’s craft and use of literary archetypes in a novel
- Define new vocabulary and identify words in context

Lesson 1: Setting Background for Walk Two Moons

Objectives:
- Define new vocabulary and identify words in context
- Conduct research to learn background information about the novel and biographical information about the author

Lesson 2: Walk Two Moons, Chapters 1–4

Objectives:
- Support text analysis with text evidence
- Describe the role of setting in the novel and its effect on the characters
- Examine flashback as a structural element of the plot
- Define new vocabulary and identify words in context

Lesson 3: Walk Two Moons, Chapters 5–8

Objectives:
- Support analysis of reading with textual evidence
- Examine how an author develops characters in a text
- Analyze how authors establish mood and tone and create humor in a text
- Define new vocabulary and identify words in context

Lesson 4: Walk Two Moons, Chapters 9–11

Objectives:
- Draw conclusions and make inferences using evidence from the text
• Analyze the author’s use of descriptive and figurative language to create an effect on the reader
• Define new vocabulary and identify words in context

Lesson 5: Walk Two Moons, Chapters 12–14

Objectives:
• Support analysis of reading with textual evidence
• Analyze text clues that serve to foreshadow plot events
• Draw conclusions and make inferences using evidence from the text
• Define new vocabulary and identify words in context

Lesson 6: Walk Two Moons, Chapters 15–18

Objectives:
• Support analysis of reading with textual evidence
• Examine how an author develops characters and conveys theme in a text
• Draw conclusions and make inferences using evidence from the text
• Define new vocabulary and identify words in context
• Reflect on reading role in writing

Lesson 7: Walk Two Moons, Chapters 19–22

Objectives:
• Draw conclusions and make inferences using evidence from the text
• Examine how an author develops conflict and advances the plot in a text
• Define new vocabulary and identify words in context

Lesson 8: Walk Two Moons, Chapters 23–25

Objectives:
• Draw conclusions and make inferences using evidence from the text
• Examine the development of the plot and its effect on the characters
• Define new vocabulary and identify words in context

Lesson 9: Walk Two Moons, Chapters 26–29

Objectives:
• Draw conclusions and make inferences using evidence from the text
• Examine how authors develop characters using archetypal patterns
• Define new vocabulary and identify words in context

Lesson 10: Walk Two Moons, Chapters 30–32

Objectives:
• Draw conclusions and make inferences using evidence from the text
• Examine how an author develops theme through the use of symbols in a text
• Define new vocabulary and identify words in context

Lesson 11: Walk Two Moons, Chapters 33–37

Objectives:
• Draw conclusions and make inferences using evidence from the text
• Examine how the connections between and among characters in a text serves to develop theme
• Define new vocabulary and identify words in context

Lesson 12: Walk Two Moons, Chapters 38–41

Objectives:
• Draw conclusions and make inferences using evidence from the text
• Examine how an author uses irony to develop the plot
• Define new vocabulary and identify words in context

Lesson 13: Walk Two Moons, Chapters 42–44

Objectives:
• Draw conclusions and make inferences using evidence from the text
• Examine how an author resolves conflict in a text
• Define new vocabulary and identify words in context
• Reflect on reading role in writing
LANGUAGE ARTS 7 A
Language Arts 7 A

In seventh grade, by studying authors such as Amy Tan, Emily Dickinson, and Laurence Yep, the student ponders such questions as “Does every conflict have a winner?”; “What is the best way to communicate?”; and “Do others see us more clearly than we see ourselves?” Short- and long-term research engages the student’s curiosity and critical-thinking skills. The student is encouraged to integrate knowledge and ideas into coursework as the student practices narrative, informative, and persuasive writing.

The student will sharpen and strengthen skills in reading, writing, listening, and speaking. The student is exposed to a wide variety of writing styles to create a sense of curiosity and excitement. The student will improve comprehension of increasingly complex literature and informational texts using a multi-draft reading approach as the student discusses, analyzes, and critiques. The student will learn to make connections between readings, other titles, and the world. The student will also expand an academic vocabulary and build confidence through independent reading. The student will write expository and creative compositions and employ test-taking strategies that are effective for different types of learners.

Unit 1: MS LA Course Overview

In this unit, you will receive a basic overview of the course. You will learn about the course structure built around the Literature series textbook, and preview the different icons and assessments included throughout the course. You will also explore and learn more about interactive reviews, novel units, and Independent Reading roles.

Lesson 1: Getting Started in Middle School Language Arts

Unit 2: Different Perspectives

In this unit, you will explore the Big Question: Does every conflict have a winner? You will read stories multiple times to deepen your understanding of literature and to understand the author’s craft better. You will read literary texts to explore characterization, analyze plot elements, and identify theme and point of view. You will read nonfiction texts to understand author’s purpose and explore conflict. Finally, you will distinguish between nouns, adjectives, and adverbs, and learn ways to use context clues to help you understand unknown words.

Objectives:
- Make predictions and inferences; analyze point of view, conflict and resolution; and compare characters
- Distinguish between personal and possessive pronouns, adjectives, and adverbs
- Prewrite, draft, revise, and edit an autobiographical narrative
- Predict, define, and accurately use academic vocabulary words related to conflict
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 1: Introducing the Big Question

Objectives:
- Discuss different types of conflict with your partner
- Predict meaning of academic vocabulary words
- Define and accurately use academic vocabulary related to conflict
- Preview titles for independent reading

Lesson 2: Close Reading Workshop: Short Story (two-day lesson)

Objectives:
- Support short-story analysis with textual evidence
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how elements of a short story interact
- Analyze how an author develops the points of view of characters in a short story, including the narrator
- Compose a focused research question and conduct short-term research to answer it

Lesson 3: Elements of a Short Story (two-day lesson)
Objectives:
• Identify and define elements of a short story
• Support short-story analysis with textual evidence

Lesson 4: First Read: Two Kinds from The Joy Luck Club (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Use prior knowledge and details from the text to make and verify predictions
• Analyze how elements of a short story interact

Lesson 5: Second Read: Two Kinds from The Joy Luck Club (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to conflict and competition
• Use context clues to determine the meaning of words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze the thoughts and actions of characters to understand character development
• Analyze how an author develops the points of view of characters in a short story, including the narrator

Lesson 6: Third Read: Two Kinds from The Joy Luck Club (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to conflict and competition
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support story analysis with textual evidence
• Determine the theme of a short story
• Read and comprehend a variety of texts
• Identify and use personal and possessive pronouns in a sentence

Lesson 7: WriteToLearn: Autobiographical Narrative (two-day lesson)

Objectives:
• Compose an autobiographical narrative with descriptive details and well-sequenced events
• Apply suggested revisions and edits to future written compositions

Lesson 8: Beginning the Writing Process (two-day lesson)

Objectives:
• Demonstrate understanding of an autobiographical narrative in order to begin the prewriting and planning stage of the writing process

Lesson 9: First Read: The Third Wish (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a short story interact
• Identify and explain what is not directly stated in the text by drawing inferences

Lesson 10: Second Read: The Third Wish (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to conflict and competition
• Use context clues to determine the meaning of words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze internal and/or external conflicts that motivate characters and affect the plot
• Support short story analysis with textual evidence

Lesson 11: Third Read: The Third Wish (two-day lesson) 
Objectives:
• Define and accurately use academic vocabulary related to conflict and competition
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a short story interact
• Support story analysis with textual evidence
• Read and comprehend a variety of texts
• Identify and use coordinate adjectives and adverbs in a sentence

Lesson 12: Writing the Rough Draft (two-day lesson)
Objectives:
• Use a dictionary and thesaurus to determine the meaning, pronunciation, and the part of speech of a word
• Determine the meaning of a word in context and verify its meaning using a dictionary
• Use a thesaurus to determine synonyms for words
• Choose specific and precise nouns, adjectives, verbs, and adverbs to convey a lively picture
• Develop voice in writing using different sentence structures, varying word choice, and tone
• Construct the rough draft of an autobiographical narrative

Lesson 13: Read: The Night the Bed Fell (two-day lesson)
Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how individuals and events interact in nonfiction text
• Support story analysis with textual evidence

Lesson 14: Read: Stolen Day (two-day lesson)
Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a short story interact
• Support story analysis with textual evidence

Lesson 15: Comparing Characters (two-day lesson)
Objectives:
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze internal and/or external conflicts that motivate characters and affect the plot
• Analyze the thoughts and actions of characters to understand character development

Lesson 16: Writing the Final Draft (two-day lesson)
Objectives:
• Choose precise and specific words to convey meaning
• Apply transition words to clarify sequence of events
• Improve the pacing of the autobiographical narrative to develop characters, events, or experiences
• Choose specific and precise nouns, adjectives, verbs, and adverbs to convey a lively picture
• Identify and use correct pronouns and antecedents in a sentence
• Apply revisions and edits to a rough draft

Lesson 17: Text Set (three-day lesson)

Objectives:
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to conflict and competition
• Read and analyze literary and informational texts, citing textual evidence to support analysis
• Conduct research using credible sources in order to take notes, and use the appropriate format for citing sources
• Compose a discussion board post, drawing evidence from literary and informational texts to support analysis and reflection
• Discuss issues of competition and conflict based on texts in this unit and personal experience

Lesson 18: Unit Review (two-day lesson)

Objectives:
• Make predictions and inferences; analyze point of view, and conflict and resolution; and compare characters
• Distinguish between personal and possessive pronouns and adjectives and adverbs
• Prewrite, draft, revise, and edit an autobiographical narrative
• Predict, define, and accurately use academic vocabulary words related to conflict
• Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 19: Different Perspectives Unit Test

Objectives:
• Make predictions and inferences; analyze point of view, conflict and resolution; and compare characters
• Distinguish between personal and possessive pronouns and adjectives and adverbs
• Prewrite, draft, revise, and edit an autobiographical narrative
• Predict, define, and accurately use academic vocabulary words related to conflict
• Read, analyze, and connect an independent reading text to other literature and your personal experiences

Unit 3: Exploring Ideas

In this unit, you will explore the Big Question: What should we learn? You will read nonfiction selections multiple times to deepen your understanding of how authors communicate main ideas and purposes for writing. You will read literary nonfiction to classify fact and fiction and analyze how main ideas are supported by details. You will write an argumentative essay and will distinguish between different types and tenses of verbs to use them correctly in sentences.

Objectives:
• Analyze main idea and support; classify fact and opinion; analyze nonfiction texts
• Use action and linking verbs; use conjunctions and interjections; use correct verb tense; use Greek or Latin roots and affixes as clues to word meaning
• Prewrite, draft, revise, and edit an argumentative text
• Predict, define, and accurately use academic vocabulary words related to learning
• Read, analyze, and connect an independent reading selection to other literature and your personal experiences

Lesson 1: Introducing the Big Question
Objectives:
• Discuss with your partner things that are important to learn
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to learning
• Preview titles for independent reading selection

Lesson 2: Close Reading Workshop: Nonfiction (two-day lesson)

Objectives:
• Support nonfiction analysis with textual evidence
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze the author’s purpose and point of view in a text
• Evaluate the organization of key ideas in a selection, using details from the text for support
• Compose a focused research question and conduct short-term research to answer it

Lesson 3: Elements of Nonfiction (two-day lesson)

Objectives:
• Identify and define elements of nonfiction
• Analyze word choice within nonfiction selections
• Compare and contrast nonfiction structures
• Determine how elements of a nonfiction selection offer clues to an author’s purpose or point of view

Lesson 4: First Read: Life Without Gravity (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how a main idea is supported by details

Lesson 5: Second Read: Life Without Gravity (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to nonfiction
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a nonfiction selection interact

Lesson 6: Third Read: Life Without Gravity (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to nonfiction
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a nonfiction selection interact
• Support analysis of a nonfiction selection with textual evidence
• Identify and use action and linking verbs in a sentence
• Read and comprehend a variety of texts

Lesson 7: WriteToLearn: Persuasive Essay (two-day lesson)

Objectives:
• Compose a persuasive essay with claims supported by relevant evidence
• Apply suggested revisions and edits to future written compositions

Lesson 8: Beginning the Writing Process (two-day lesson)

Objectives:
• Demonstrate understanding of an argumentative essay in order to begin the prewriting and planning stage of the writing process

Lesson 9: First Read: All Together Now (two-day lesson)
Lesson 10: Second Read: All Together Now (two-day lesson)

Objectives:
- Predict and define the meaning of academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Distinguish fact and opinion in a nonfiction text

Lesson 11: Third Read: All Together Now (two-day lesson)

Objectives:
- Define and accurately use academic vocabulary related to learning
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze the use of persuasive appeals in a nonfiction text
- Evaluate the central argument of a persuasive essay
- Support analysis of a nonfiction selection with textual evidence
- Read and comprehend a variety of texts
- Identify and use conjunctions and interjections in a sentence

Lesson 12: Writing the Rough Draft (two-day lesson)

Objectives:
- Use prefixes and suffixes to determine the meanings of words
- Identify the origins of prefixes, suffixes, and roots to interpret the meaning of an unknown word
- Choose precise and specific words to convey meaning
- Construct the rough draft of an argumentative essay
- Identify and correctly apply verb tenses to writing

Lesson 13: Read: from Barrio Boy (two-day lesson)

Objectives:
- Predict and define the meaning of academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how individuals and events interact in a nonfiction text
- Support story analysis with textual evidence

Lesson 14: Read: A Day's Wait (two-day lesson)

Objectives:
- Predict and define the meaning of academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how elements of a short story interact
- Support story analysis with textual evidence

Lesson 15: Comparing Fiction and Nonfiction (two-day lesson)

Objectives:
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Compare and contrast narrative fiction and nonfiction

Lesson 16: Writing the Final Draft (two-day lesson)

Objectives:
- Apply revisions and edits to a rough draft
- Construct the final draft of an argumentative text
- Revise writing to combine sentences using conjunctions

Lesson 17: Text Set (two-day lesson)

Objectives:
Lesson 18: Unit Review (two-day lesson)

Objectives:
- Analyze main idea and support; classify fact and opinion; analyze nonfiction texts
- Use action and linking verbs; use conjunctions and interjections; use correct verb tense; use Greek or Latin roots and affixes as clues to word meaning
- Prewrite, draft, revise, and edit an argumentative text
- Predict, define, and accurately use academic vocabulary words related to learning
- Read, analyze, and connect an independent reading selection to other literature and your personal experiences

Lesson 19: Exploring Ideas Unit Test

Objectives:
- Analyze main idea and support; classify fact and opinion; analyze nonfiction texts
- Use action and linking verbs; use conjunctions and interjections; use correct verb tense; use Greek or Latin roots and affixes as clues to word meaning
- Prewrite, draft, revise, and edit an argumentative text
- Predict, define, and accurately use academic vocabulary words related to learning
- Read, analyze, and connect an independent reading selection to other literature and your personal experiences

Unit 4: The Watsons Go to Birmingham—1963

This novel tells the story of the "Weird Watson" family and the humorous events that occur to them in Flint, Michigan, in 1963. After one too many "adventures" involving their oldest son, Byron, the parents decide to take a family trip to Birmingham, Alabama, to visit the children's grandmother and hopefully encourage Byron to change his ways. On their way to Alabama, and while there, the Watson children learn that life is different for African Americans in the South. In this unit, you will identify literary elements, analyze themes, and develop an understanding of the historical context of the novel.

The Watsons go to Birmingham—1963 is the recommended novel for Language Arts 7A. The Liberation of Gabriel King may be read instead of The Watsons go to Birmingham—1963 with prior teacher approval. Lessons and activities for The Liberation of Gabriel King will appear on the lower half of the lesson pages.

The Liberation of Gabriel King is a historical novel about a young boy living in the United States in 1976. Gabriel King worries about a lot of things, and his best friend, Frita, sets out to help him overcome his fears. Her plan doesn't always go the way she hoped, however, and she and Gabriel will both learn important lessons as they try to figure out what it means to be courageous. In this lesson, you will identify literary elements and analyze themes.

Objectives:
- Make, revise, and confirm predictions based upon prior knowledge
- Respond to literal, inferential, and critical thinking questions before, during, and after reading the text
- Analyze connections between the characters, setting, plot, theme and other story elements
- Determine how authors use historical events as a basis to create fictional narratives
Lesson 1: Setting Background for Watsons

Objectives:
- Define new vocabulary and identify words in context
- Determine the social and political climate in the United States in the early sixties to understand the historical context of the novel
- Synthesize ideas across texts to form a prediction about the novel
- Conduct research to learn background information about the setting of the story and biographical information about the author

Lesson 2: Watsons, Chapter 1–2

Objectives:
- Support text analysis with text evidence
- Describe the role of setting in the novel
- Examine the relationships between and among the characters
- Define new vocabulary and identify words in context

Lesson 3: Watsons, Chapters 3–4

Objectives:
- Support analysis of reading with textual evidence
- Analyze how an author develops the theme of a text
- Draw conclusions and make inferences using evidence from the text
- Define new vocabulary and identify words in context

Lesson 4: Watsons, Chapters 5–6

Objectives:
- Support analysis of reading with textual evidence
- Identify and examine cause-and-effect relationships among plot elements
- Analyze the author’s use of simile and metaphor
- Define new vocabulary and identify words in context

Lesson 5: Watsons, Chapter 7

Objectives:
- Support analysis of reading with textual evidence
- Identify and examine character interactions and plot events that create conflict in a narrative
- Read, discuss, analyze, and demonstrate comprehension of grade-level texts
- Reflect on reading role in writing
- Define new vocabulary and identify words in context

Lesson 6: Watsons, Chapter 8

Objectives:
- Support analysis of reading with textual evidence
- Analyze dialogue and interactions between and among characters
- Define new vocabulary and identify words in context

Lesson 7: Watsons, Chapters 9–10

Objectives:
- Support analysis of reading with textual evidence
- Analyze how an author develops the points of view of different characters in a text
- Define new vocabulary and identify words in context

Lesson 8: Watsons, Chapters 11–12

Objectives:
- Support text analysis with text evidence
- Describe the role of setting in the novel and its effect on the characters
- Define new vocabulary and identify words in context
Lesson 9: Watsons, Chapters 13–14

Objectives:
- Support text analysis with text evidence
- Analyze the development of plot elements that lead to the climax of the novel
- Define new vocabulary and identify words in context

Lesson 10: Watsons, Chapter 15 and Epilogue

Objectives:
- Support text analysis with text evidence
- Evaluate the historical context of the novel to determine the accuracy of a fictional portrayal of a time, place, or character
- Read, discuss, analyze, and demonstrate comprehension of grade level text
- Reflect on reading role in writing
- Define new vocabulary and identify words in context
LANGUAGE ARTS 7 B
Language Arts 7 B

In seventh grade, by studying authors such as Amy Tan, Emily Dickinson, and Laurence Yep, the student ponders such questions as “Does every conflict have a winner?”; “What is the best way to communicate?”; and “Do others see us more clearly than we see ourselves?” Short- and long-term research engages the student’s curiosity and critical-thinking skills. The student is encouraged to integrate knowledge and ideas into coursework as the student practices narrative, informative, and persuasive writing.

The student will sharpen and strengthen skills in reading, writing, listening, and speaking. The student is exposed to a wide variety of writing styles to create a sense of curiosity and excitement. The student will improve comprehension of increasingly complex literature and informational texts using a multi-draft reading approach as the student discusses, analyzes, and critiques. The student will learn to make connections between readings, other titles, and the world. The student will also expand an academic vocabulary and build confidence through independent reading. The student will write expository and creative compositions and employ test-taking strategies that are effective for different types of learners.

Unit 1: MS LA Course Overview

In this unit, you will receive a basic overview of the course. You will learn about the course structure built around the Literature series textbook, and preview the different icons and assessments included throughout the course. You will also explore and learn more about interactive reviews, novel units, and Independent Reading roles.

Lesson 1: Getting Started in Middle School Language Arts

Unit 2: Sounds and Ideas

In this unit, you will explore the Big Question: What is the best way to communicate? You will read poems multiple times to deepen your understanding of literature and to understand the author’s craft better. You will read poetry to explore structure of poems, figurative language, sound devices, and imagery. You will practice paraphrasing and drawing conclusions. Finally, you will use appropriate endmarks in sentences, identify various sentence structures, and use coordinating and subordinating conjunctions.

Objectives:
• Draw conclusions, paraphrase, analyze forms of poetry, analyze imagery, and analyze sound devices
• Identify sentence functions and use appropriate endmarks, identify independent and dependent clauses, use coordinating and subordinating conjunctions
• Predict, define, and accurately use academic vocabulary words related to communication
• Prewrite, draft, revise, and edit a comparison-and-contrast essay
• Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 1: Introducing the Big Question (two-day lesson)

Objectives:
• Discuss with a partner the best ways to communicate
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to communication
• Preview titles for Independent Reading

Lesson 2: Close Reading Workshop: Poetry (three-day lesson)

Objectives:
• Support poetry analysis with textual evidence
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how words’ connotations contribute to a poem’s meaning
• Conduct short-term research to enhance understanding of poetry

Lesson 3: Elements of Poetry (two-day lesson)
Objectives:
• Identify and define sound devices and figurative language
• Identify and define elements of poetry

Lesson 4: First Read: Poetry Collection 1

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Use details from a poem to draw conclusions about ideas that are not directly stated

Lesson 5: Second Read: Poetry Collection 1

Objectives:
• Define and accurately use academic vocabulary
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze forms of poetry

Lesson 6: Third Read: Poetry Collection 1 (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support analysis of a poem with textual evidence
• Identify sentence functions and use appropriate endmarks
• Read and comprehend a variety of texts

Lesson 7: WriteToLearn: Comparison-and-Contrast Essay (two-day lesson)

Objectives:
• Compose a comparison-and-contrast essay to demonstrate similarities and differences between two subjects
• Apply suggested revisions and edits to future written compositions

Lesson 8: Beginning the Writing Process (two-day lesson)

Objectives:
• Conduct short-term research to determine the similarities and differences between two or more subjects
• Conduct research using credible sources in order to take notes and use the appropriate format for citing sources
• Demonstrate understanding of a comparison-and-contrast essay in order to begin the prewriting and planning stage of the writing process

Lesson 9: First Read: Poetry Collection 3

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Determine and paraphrase the meaning of poetry or poetic language

Lesson 10: Second Read: Poetry Collection 3

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze the use of sound devices in a poem

Lesson 11: Third Read: Poetry Collection 3 (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to communication
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support analysis of a poem with textual evidence
• Analyze the use of sound devices in a poem
• Read and comprehend a variety of texts
• Identify independent and dependent clauses in sentences

Lesson 12: Writing the Rough Draft (two-day lesson)

Objectives:
• Use knowledge of context and function to define multiple-meaning words
• Use a dictionary to define multiple-meaning words
• Compose the rough draft of a comparison-and-contrast essay

Lesson 13: Read: Miracles

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support poetry analysis with textual evidence

Lesson 14: Read: in Just—

Objectives:
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Identify and define elements of poetry
• Support poetry analysis with textual evidence

Lesson 15: Comparing Imagery (two-day lesson)

Objectives:
• Analyze how imagery contributes to mood and meaning in a poem
• Compare and contrast the use of imagery in two poems
• Support poetry analysis with textual evidence

Lesson 16: Writing the Final Draft (two-day lesson)

Objectives:
• Revise writing for clarity using coordinating and subordinating conjunctions
• Revise writing to avoid dangling and misplaced modifiers
• Apply revisions and edits to a rough draft
• Use the appropriate format for citing sources
• Construct the final draft of a comparison-and-contrast essay

Lesson 17: Text Set (three-day lesson)

Objectives:
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to communication
• Read and analyze literary and informational texts, citing textual evidence to support analysis
• Conduct research using credible sources in order to take notes, and use the appropriate format for citing sources
• Compose a discussion board post, drawing evidence from literary and informational texts to support analysis and reflection
• Discuss issues of communication and heroics, referencing texts in this unit and personal experience

Lesson 18: Unit Review (two-day lesson)

Objectives:
Lesson 19: Sounds and Ideas Unit Test

Objectives:
- Draw conclusions, paraphrase, analyze forms of poetry, analyze imagery, and analyze sound devices
- Identify sentence functions and use appropriate endmarks, identify independent and dependent clauses, use coordinating and subordinating conjunctions
- Predict, define, and accurately use academic vocabulary words related to communication
- Prewrite, draft, revise, and edit a comparison-and-contrast essay
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Unit 3: Dramatic Transformations

In this unit, you will explore the Big Question: Do others see us more clearly than we see ourselves? You will read selections from a drama multiple times to deepen your understanding of literature and to better understand the playwright’s craft. You will read drama to explore structure of dramas, dialogue, and stage directions. You will practice setting a purpose for reading and adjusting reading rate to suit your purpose. Finally, you will identify and use prepositions, appositives, and participles.

Objectives:
- Set a purpose for reading, adjust reading rate to suit purpose, analyzing dialogue, analyzing stage directions, analyzing drama, comparing and contrasting points of view
- Identify and use prepositions and prepositional phrases, identify and use appositives and appositive phrases, revise writing using participles
- Predict, define, and accurately use academic vocabulary words related to self-perception
- Prewrite, draft, revise, and edit a research presentation
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 1: Introducing the Big Question

Objectives:
- Discuss with a partner whether others see us more clearly than we see ourselves
- Predict meaning of academic vocabulary words
- Define and accurately use academic vocabulary related to self-perception
- Preview titles for Independent Reading

Lesson 2: Close Reading Workshop: Drama (three-day lesson)

Objectives:
- Support analysis of drama with textual evidence
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Conduct short-term research to enhance understanding of drama

Lesson 3: Elements of Drama (two-day lesson)

Objectives:
- Identify and define elements of drama

Lesson 4: First Read: A Christmas Carol, Act I (three-day lesson)
Objectives:
- Predict and define the meaning of academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Set a purpose for reading
- Analyze how elements of a drama interact

Lesson 5: Second Read: A Christmas Carol, Act I (three-day lesson)

Objectives:
- Define and accurately use academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze dialogue to understand characters, conflict, and plot
- Analyze how elements of a drama interact

Lesson 6: Third Read: A Christmas Carol, Act I (three-day lesson)

Objectives:
- Define and accurately use academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how elements of a drama interact
- Support analysis of a drama with textual evidence
- Read and comprehend a variety of texts
- Identify and correctly use prepositions and prepositional phrases

Lesson 7: Planning the Presentation (two-day lesson)

Objectives:
- Conduct short-term research to enhance understanding of drama
- Conduct research using credible sources in order to take notes and use the appropriate format for citing sources
- Demonstrate understanding of a research presentation in order to begin the prewriting and planning stages

Lesson 8: First Read: A Christmas Carol, Act II (three-day lesson)

Objectives:
- Predict and define the meaning of academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Set a purpose for reading
- Analyze how elements of a drama interact

Lesson 9: Second Read: A Christmas Carol, Act II (three-day lesson)

Objectives:
- Define and accurately use academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze stage directions to deepen understanding of a drama
- Analyze how elements of a drama interact

Lesson 10: Third Read: A Christmas Carol, Act II (three-day lesson)

Objectives:
- Define and accurately use academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how elements of a drama interact
- Read and comprehend a variety of texts
- Identify and correctly use appositives and appositive phrases
- Support analysis of a drama with textual evidence

Lesson 11: Creating the Presentation (two-day lesson)

Objectives:
• Distinguish among the connotations of words with similar denotations
• Develop a thesis statement that expresses the main idea of a research presentation
• Compose the rough draft of a research presentation
• Utilize different design and visual elements in order to construct an engaging presentation

Lesson 12: Read: Zoos: Joys or Jails? (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze point of view in a nonfiction selection
• Support analysis with textual evidence

Lesson 13: Read: Kid Territory: Why Do We Need Zoos? (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze point of view in a nonfiction selection
• Support analysis with textual evidence

Lesson 14: Comparing Argumentative Texts (two-day lesson)

Objectives:
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Compare and contrast point of view in nonfiction selections about the same topic
• Support analysis with textual evidence

Lesson 15: Publishing the Presentation (two-day lesson)

Objectives:
• Apply revisions and edits to a rough draft presentation
• Construct the final draft of a research presentation
• Utilize different design and visual elements in order to construct an engaging presentation
• Revise choppy writing use participles

Lesson 16: Text Set (three-day lesson)

Objectives:
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to leadership and perception
• Read and analyze literary and informational texts, citing textual evidence to support analysis
• Conduct research using credible sources in order to take notes, and use the appropriate format for citing sources
• Compose a discussion board post, drawing evidence from literary and informational texts to support analysis and reflection
• Discuss issues of leadership and perception referencing texts in this unit and personal experiences

Lesson 17: Unit Review (two-day lesson)

Objectives:
• Set a purpose for reading, adjust reading rate to suit purpose, analyzing dialogue, analyzing stage directions, analyzing drama, comparing and contrasting points of view
• Identify and use prepositions and prepositional phrases, identify and use appositives and appositive phrases, revise writing using participles
Lesson 18: Dramatic Transformations Unit Test: Closed Book

Objectives:
- Set a purpose for reading, adjust reading rate to suit purpose, analyzing dialogue, analyzing stage directions, analyzing drama, comparing and contrasting points of view
- Identify and use prepositions and prepositional phrases, identify and use appositives and appositive phrases, revise writing using participles
- Predict, define, and accurately use academic vocabulary words related to self-perception
- Prewrite, draft, revise, and edit a research presentation
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Unit 4: Dragonwings

This Newbery Award-winning novel takes place in the San Francisco Bay Area at the turn of the century. It is the story of a Chinese boy, Moon Shadow, who moves to Chinatown to be with his father, Windrider, who is working on a flying machine at the same time the Wright Brothers are. An historical novel, it depicts not only the lives of and discrimination against San Francisco's Chinese immigrants in the early 1900s, but also the 1906 San Francisco earthquake. You will identify literary elements and write a newspaper article describing a major event in the novel.

Dragonwings is the recommended novel for Language Arts 7B. Where the Mountain Meets the Moon may be read instead of Dragonwings with prior teacher approval. Lessons and activities for Where the Mountain Meets the Moon will appear on the lower half of the lesson pages.

Where the Mountain Meets the Moon is a fantasy novel about a girl named Minli and her quest to help her family. The story also follows Minli’s parents as they try to make a good life and a good home for Minli. The events of the novel take place in China long ago, in a world where magic is real. Fantastic creatures and impossible events form the background for a story about family, fortune, and friendship.

Objectives:
- Make revise, and confirm predictions based upon prior knowledge
- Respond to literal, inferential, and critical thinking questions before, during, and after reading the text
- Analyze connections between the characters, setting, plot, and theme
- Determine how authors use historical events as a basis to create fictional narratives
- Make inferences and draw conclusions

Lesson 1: Setting Background for Dragonwings

Objectives:
- Define new vocabulary and identify words in context
- Determine the social and political climate in California during the early 1900s to understand the historical context of the novel
- Synthesize ideas across texts to form a prediction about the novel
- Support text analysis with text evidence
- Draw conclusions about how an author’s writing is influenced by personal experiences

Lesson 2: Dragonwings, Chapter 2

Objectives:
- Support text analysis with text evidence
- Compare and contrast the settings in the novel
- Examine distinguishing traits of the characters
- Define new vocabulary and identify words in context
Lesson 3: Dragonwings, Chapter 3–4

Objectives:
- Support analysis of reading with textual evidence
- Analyze the development of a character’s point of view
- Draw conclusions and make inferences using evidence from the text
- Define new vocabulary and identify words in context

Lesson 4: Dragonwings, Chapter 5–6

Objectives:
- Support analysis of reading with textual evidence
- Identify and examine cause-and-effect relationships that create conflict within the plot
- Analyze the author’s use of italicized writing in text
- Define new vocabulary and identify words in context
- Reflect on reading role in writing

Lesson 5: Dragonwings, Chapter 7

Objectives:
- Support analysis of reading with textual evidence
- Analyze how an author develops the theme of a text
- Read, discuss, analyze, and demonstrate comprehension of grade level texts
- Define new vocabulary and identify words in context

Lesson 6: Dragonwings, Chapter 8–9

Objectives:
- Compare and contrast a fictional portrayal of a time, place, or character to a historical account of the same time period
- Support analysis of reading with textual evidence
- Define new vocabulary and identify words in context

Lesson 7: Dragonwings, Chapter 10–11

Objectives:
- Support analysis of reading with textual evidence
- Examine how the setting affects characters
- Analyze the mood created by the setting
- Define new vocabulary and identify words in context

Lesson 8: Dragonwings, Chapter 12

Objectives:
- Support text analysis with text evidence
- Analyze how an author develops the theme of a text
- Examine how conflicts are resolved in a text
- Define new vocabulary and identify words in context
- Reflect on reading role in writing
LANGUAGE ARTS 8 A
Language Arts 8 A

In eighth grade, through the study of authors such as Nikki Giovanni, Elie Wiesel, and Mark Twain, the student will ponder such questions as “Can all conflicts be resolved?”; “Is it our differences or our similarities that matter most?”; and “Are yesterday’s heroes important today?” The student will exercise curiosity and critical-thinking skills through short- and long-term research. The student will refine and reinforce skills by practicing narrative, informative, and persuasive writing.

The student will sharpen and strengthen skills in reading, writing, listening, and speaking. The student is exposed to a wide variety of writing styles to create a sense of curiosity and excitement. The student will improve comprehension of increasingly complex literature and informational texts using a multi-draft reading approach as the student discusses, analyzes, and critiques. The student will learn to make connections between readings, other titles, and the world. The student will also expand an academic vocabulary and build confidence through independent reading. The student will write expository and creative compositions and employ test-taking strategies that are effective for different types of learners.

Unit 1: MS LA Course Overview

In this unit, you will receive a basic overview of the course. You will learn about the course structure built around the Literature series textbook, and preview the different icons and assessments included throughout the course. You will also explore and learn more about interactive reviews, novel units, and Independent Reading roles.

Lesson 1: Getting Started in Middle School Language Arts

Unit 2: Turning Points

In this unit, you will explore the Big Question: Can all conflicts be resolved? You will read stories multiple times to deepen your understanding of literature and to better understand the author’s craft. You will read literary texts to explore characterization and analyze plot elements and theme. Through your reading, you will explore the nature of conflict, especially related to characters. Finally, you will distinguish among different types of nouns and verbs and learn ways to use context clues to help you understand unknown words.

Objectives:
• Make predictions and inferences; analyze plot, conflict, resolution, and theme; and compare characters of different eras
• Distinguish among common, proper, and possessive nouns; distinguish among principal parts of verbs
• Predict, define, and accurately use academic vocabulary words related to conflict
• Read, analyze, and connect an independent reading text to other literature and personal experience
• Prewrite, draft, revise, and edit an autobiographical essay

Lesson 1: Introducing the Big Question

Objectives:
• Discuss different types of conflict with a partner
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to conflict
• Preview titles for independent reading

Lesson 2: Close Reading Workshop: Short Story (two-day lesson)

Objectives:
• Support short story analysis with textual evidence
• Practice multi-draft reading of a short story
• Analyze how elements of a short story interact
• Compose a focused research question and conduct short-term research to answer it

Lesson 3: Elements of a Short Story (two-day lesson)

Objectives:
• Support short story analysis with textual evidence
• Identify and define elements of a short story

**Lesson 4: First Read: Raymond’s Run (two-day lesson)**

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Use prior knowledge and details from the text to make and verify predictions
• Analyze how elements of a short story interact

**Lesson 5: Second Read: Raymond’s Run (two-day lesson)**

Objectives:
• Define and accurately use academic vocabulary
• Use context clues to determine the meaning of words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading

**Lesson 6: Third Read: Raymond’s Run (two-day lesson)**

Objectives:
• Define and accurately use academic vocabulary
• Support story analysis with textual evidence
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how characters change due to conflict in a story
• Identify and use common, proper, and possessive nouns in a sentence
• Assess the interest level of an independent reading selection

**Lesson 7: WriteToLearn: Autobiographical Narrative (two-day lesson)**

Objectives:
• Compose an autobiographical narrative with descriptive details and well-sequenced events
• Apply suggested revisions and edits to future written compositions

**Lesson 8: Beginning the Writing Process (two-day lesson)**

Objectives:
• Demonstrate understanding of an autobiographical essay in order to begin the prewriting and planning stage of the writing process

**Lesson 9: First Read: The Story-Teller (two-day lesson)**

Objectives:
• Predict and define the meaning of academic vocabulary words
• Use details from the text to support inferences
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a short story interact

**Lesson 10: Second Read: The Story-Teller (two-day lesson)**

Objectives:
• Define and accurately use academic vocabulary
• Use context clues to determine the meaning of words
• Analyze elements of a story to determine the theme
• Analyze events in a story to determine the plot structure
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how dialogue and narration shape the plot and characters in a short story
• Draw conclusions about character traits based on characters' words and actions

**Lesson 11: Third Read: The Story-Teller (two-day lesson)**
Objectives:
• Define and accurately use academic vocabulary
• Support story analysis with textual evidence
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Identify and use principal parts of verbs in a sentence
• Compare and contrast an independent reading selection with other reading selections

Lesson 12: Writing the Rough Draft (two-day lesson)

Objectives:
• Use a dictionary and thesaurus to determine the meaning, pronunciation, synonyms, and the part of speech of a word
• Determine the meaning of a word in context and verify its meaning using a dictionary
• Develop readers’ interest through pacing and vivid descriptive details
• Construct the rough draft of an autobiographical essay
• Improve coherence and interest by combining sentences using conjunctions

Lesson 13: Read: The Finish of Patsy Barnes (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a short story interact
• Support story analysis with textual evidence

Lesson 14: Read: The Drummer Boy of Shiloh (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a short story interact
• Support story analysis with textual evidence

Lesson 15: Comparing Characters

Objectives:
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze internal and/or external conflicts that motivate characters and affect the plot
• Analyze the thoughts and actions of characters to understand character development

Lesson 16: Writing the Final Draft (two-day lesson)

Objectives:
• Apply revisions and edits to a rough draft
• Apply transitions to make relationships and shifts in the essay clearer
• Choose specific and precise nouns to convey a lively picture
• Identify and use correct pronoun-antecedent agreement in a sentence

Lesson 17: Text Set (three-day lesson)

Objectives:
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to conflict between people and machines
• Read and analyze literary and informational texts, citing textual evidence to support analysis
• Conduct research using credible sources in order to take notes and use the appropriate format for citing sources
Lesson 18: Unit Review (two-day lesson)

Objectives:
- Make predictions and inferences; analyze plot, conflict, resolution, and theme; and compare characters of different eras
- Distinguish among common, proper, and possessive nouns; distinguish among principal parts of verbs
- Predict, define, and accurately use academic vocabulary words related to conflict
- Prewrite, draft, revise, and edit an autobiographical essay
- Read, analyze, and connect an independent reading text to other literature and your personal experience

Lesson 19: Unit Test

Objectives:
- Make predictions and inferences; analyze plot, conflict, resolution, and theme; and compare characters of different eras
- Distinguish among common, proper, and possessive nouns; distinguish among principal parts of verbs
- Predict, define, and accurately use academic vocabulary words related to conflict
- Prewrite, draft, revise, and edit an autobiographical essay
- Read, analyze, and connect an independent reading text to other literature and your personal experience

Unit 3: Facts and Visions

In this unit, you will explore the Big Question: How much information is enough? You will read stories multiple times to deepen your understanding of literature and to understand the author’s craft better. You will read literary text to explore the concept of and develop the thinking skill of compare and contrast. You will read nonfiction texts to understand author’s purpose, delineate and evaluate arguments and claims, and determine validity of claims. You will begin the writing process, writing a compare/contrast essay from prewrite through to final draft. Finally, you will explore and use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects, and learn ways to use context clues to help you understand unknown words.

Objectives:
- Make inferences; analyze main idea; analyze biography; distinguish fact and opinion; analyze persuasive techniques; compare and contrast organization of literary nonfiction and determine author’s point of view and purpose
- Distinguish among perfect tenses of verbs; distinguish among verb moods
- Predict, define, and accurately use academic vocabulary words related to information
- Read, analyze, and connect an independent reading text to other literature and your personal experiences
- Prewrite, draft, revise, and edit a comparison-and-contrast essay

Lesson 1: Introducing the Big Question

Objectives:
- Discuss different types of information with your partner
- Predict meaning of academic vocabulary words
- Define and accurately use academic vocabulary related to information
- Preview titles for independent reading

Lesson 2: Close Reading Workshop: Types of Nonfiction (two-day lesson)

Objectives:
- Support nonfiction text analysis with textual evidence
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading

Appendix A.2.a Language Arts Course Guides
Language Arts 8 A

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• Analyze the author’s purpose in a text

Lesson 3: Elements of Literary Nonfiction (two-day lesson)

Objectives:
• Analyze word choice within nonfiction selections
• Analyze tone within nonfiction selections
• Identify and define elements of nonfiction
• Compare and contrast nonfiction structures
• Analyze types of support used to develop a central idea
• Analyze the author’s purpose or point of view in a text

Lesson 4: First Read: Always to Remember (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Determine the main idea of a literary nonfiction selection
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a literary nonfiction selection interact

Lesson 5: Second Read: Always to Remember (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to information
• Identify and analyze the characteristics of autobiography and biography
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a literary nonfiction selection interact

Lesson 6: Third Read: Always to Remember (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to nonfiction
• Support nonfiction analysis with textual evidence
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a literary nonfiction selection interact
• Identify and use perfect tenses of verbs in a sentence
• Support claims about independent reading selection with relevant evidence from the text

Lesson 7: WriteToLearn: Comparison-and-Contrast Essay (two-day lesson)

Objectives:
• Compose a comparison-and-contrast essay to demonstrate similarities and differences between two subjects
• Apply suggested revisions and edits to future written compositions

Lesson 8: Beginning the Writing Process (two-day lesson)

Objectives:
• Demonstrate understanding of a comparison-and-contrast essay in order to begin the prewriting and planning stage of the writing process

Lesson 9: First Read: The Trouble With Television (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Distinguish fact and opinion in a nonfiction text
• Evaluate evidence used to support a persuasive argument

Lesson 10: Second Read: The Trouble With Television (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze persuasive techniques to determine author’s purpose in a nonfiction selection

Lesson 11: Third Read: The Trouble With Television (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support nonfiction analysis with textual evidence
• Identify and use the subjunctive and indicative verb moods in a sentence
• Compare and contrast an independent reading selection with other reading selections

Lesson 12: Writing the Rough Draft (two-day lesson)

Objectives:
• Use information related to word origin to determine the meaning, pronunciation, and the part of a speech of a word
• Use organization techniques and parallel structure to develop the topic of an essay
• Construct the rough draft of a comparison-and-contrast essay
• Write an effective comparison-and-contrast essay conclusion

Lesson 13: Read: Forest Fire

Objectives:
• Define and accurately use academic vocabulary
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a nonfiction selection interact
• Analyze and determine the author’s point of view or purpose
• Support nonfiction analysis with textual evidence

Lesson 14: Read: Seasonal Selections (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how elements of a nonfiction selection interact
• Analyze and determine the author’s point of view or purpose
• Support nonfiction analysis with textual evidence

Lesson 15: Comparing Types of Organization

Objectives:
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Identify, compare, and contrast the organization of nonfiction selections
• Support nonfiction analysis with textual evidence

Lesson 16: Writing the Final Draft (two-day lesson)

Objectives:
• Apply revisions and edits to a rough draft
• Revise writing to maintain a formal style
• Fix incorrect shifts in verb mood in a sentence

Lesson 17: Text Set (three-day lesson)

Objectives:
• Predict meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to the sense of belonging
Lesson 18: Unit Review (two-day lesson)

Objectives:
- Make inferences; analyze main idea; analyze biography; distinguish fact and opinion; analyze persuasive techniques; compare and contrast organization of literary nonfiction and determine author’s point of view and purpose
- Distinguish among perfect tenses of verbs; distinguish among verb moods
- Predict, define, and accurately use academic vocabulary words related to information
- Read, analyze, and connect an independent reading text to other literature and your personal experiences
- Prewrite, draft, revise, and edit a comparison-and-contrast essay

Lesson 19: Unit Test

Objectives:
- Make inferences; analyze main idea; analyze biography; distinguish fact and opinion; analyze persuasive techniques; compare and contrast organization of literary nonfiction and determine author’s point of view and purpose
- Distinguish among perfect tenses of verbs; distinguish among verb moods
- Predict, define, and accurately use academic vocabulary words related to information
- Read, analyze, and connect an independent reading text to other literature and your personal experiences
- Prewrite, draft, revise, and edit a comparison-and-contrast essay

Unit 4: Johnny Tremain

Johnny Tremain is a Newbery Award–winning historical novel about a young boy in colonial Boston. Johnny is a talented but arrogant silversmith’s apprentice whose life is turned upside down when he injures his hand. In time, he becomes a messenger boy on horseback for the Sons of Liberty and meets several famous Founding Fathers. He later becomes a spy for the Sons of Liberty, takes part in the Boston Tea Party, and struggles with loss at the Battles of Lexington and Concord. Throughout the unit, you will identify literary elements such as setting, characters, plot, and theme, and explore how the author’s life and background influenced her writing.

My Brother Sam Is Dead is a Newbery Honor-winning historical novel about a young boy in colonial America. Timothy Meeker is the younger son of a tavern-keeper in the small village of Redding, Connecticut. On the eve of the Revolutionary War, his brother, Sam, joins the rebel Continental Army. As the war goes on, Tim and his family face many challenges, and Tim struggles to decide which side he supports. Throughout the unit, you will identify literary elements and analyze theme.

Johnny Tremain is the recommended novel for Language Arts 8 A. My Brother Sam Is Dead may be read instead of Johnny Tremain with prior teacher approval. Lessons and activities for My Brother Sam Is Dead will appear on the lower half of the lesson pages.

Objectives:
- Summarize the key events in a historical novel
• Analyze connections between the characters, setting, plot, theme, and other story elements
• Analyze and compare actions of heroic characters
• Determine how cultural context affects character, setting, and plot
• Analyze how the background and experiences of authors influence their writing

Lesson 1: Setting Background for Johnny Tremain

Objectives:
• Define new vocabulary and identify words in context
• Determine the political climate in colonial America to understand the historical and cultural context of the novel
• Conduct research to learn background information about the setting of the story
• Conduct research to learn biographical information about the author

Lesson 2: Johnny Tremain, Chapter I

Objectives:
• Define new vocabulary and identify words in context
• Support inferences with evidence from the text
• Determine the setting of the novel and how it relates to the central idea of the text
• Examine the relationships between and among the characters

Lesson 3: Johnny Tremain, Chapter II

Objectives:
• Define new vocabulary and identify words in context
• Support inferences with evidence from the text
• Identify key events in the plot
• Analyze characters

Lesson 4: Johnny Tremain, Chapter III

Objectives:
• Define new vocabulary and identify words in context
• Support inferences with evidence from the text
• Compare characters and character traits

Lesson 5: Johnny Tremain: Chapter IV

Objectives:
• Define new vocabulary and identify words in context
• Support inferences with evidence from the text
• Analyze characters
• Analyze how an author develops the points of view of different characters in a text

Lesson 6: Johnny Tremain: Chapter V

Objectives:
• Define new vocabulary and identify words in context
• Support inferences with evidence from the text
• Identify and examine character interactions and plot events that create conflict in a narrative
• Read, discuss, analyze, and demonstrate comprehension of grade-level texts
• Reflect on reading role in writing

Lesson 7: Johnny Tremain: Chapter VI

Objectives:
• Define new vocabulary and identify words in context
• Support inferences with evidence from the text
• Summarize key events in the plot
• Determine the political climate in colonial America to understand the historical and cultural context of the novel
• Identify and examine character interactions and plot events that create conflict in a narrative
• Analyze dialogue and interactions between and among characters

**Lesson 8: Johnny Tremain: Chapter VII**

Objectives:
• Define new vocabulary and identify words in context
• Support analysis of reading with textual evidence
• Summarize key ideas and events in the text

**Lesson 9: Johnny Tremain: Chapter VIII**

Objectives:
• Define new vocabulary and identify words in context
• Support analysis of reading with textual evidence
• Analyze how an author develops the theme of a text
• Analyze significant events and their effects in a text

**Lesson 10: Johnny Tremain: Chapter IX**

Objectives:
• Define new vocabulary and identify words in context
• Support analysis of reading with textual evidence
• Summarize key ideas and events in the text
• Identify the actions and characteristics of heroic characters

**Lesson 11: Johnny Tremain: Chapter X**

Objectives:
• Define new vocabulary and identify words in context
• Support analysis of reading with textual evidence
• Analyze the development of plot elements that lead to the climax of a novel
• Identify the actions and characteristics of heroic characters

**Lesson 12: Johnny Tremain: Chapter XI**

Objectives:
• Define new vocabulary and identify words in context
• Support analysis of reading with textual evidence
• Determine the political climate in colonial America to understand the historical and cultural context of the novel
• Analyze characters
• Analyze the significance of characters’ words and dialogue

**Lesson 13: Johnny Tremain: Chapter XII**

Objectives:
• Define new vocabulary and identify words in context
• Support analysis of reading with textual evidence
• Summarize key events in the plot
• Analyze significant events and their effects in a text
LANGUAGE ARTS 8 B
Language Arts 8 B

In eighth grade, through the study of authors such as Nikki Giovanni, Elie Wiesel, and Mark Twain, the student will ponder such questions as “Can all conflicts be resolved?”; “Is it our differences or our similarities that matter most?”; and “Are yesterday’s heroes important today?” The student will exercise curiosity and critical-thinking skills through short- and long-term research. The student will refine and reinforce skills by practicing narrative, informative, and persuasive writing.

The student will sharpen and strengthen skills in reading, writing, listening, and speaking. The student is exposed to a wide variety of writing styles to create a sense of curiosity and excitement. The student will improve comprehension of increasingly complex literature and informational texts using a multi-draft reading approach as the student discusses, analyzes, and critiques. The student will learn to make connections between readings, other titles, and the world. The student will also expand an academic vocabulary and build confidence through independent reading. The student will write expository and creative compositions and employ test-taking strategies that are effective for different types of learners.

Unit 1: MS LA Course Overview

In this unit, you will receive a basic overview of the course. You will learn about the course structure built around the Literature series textbook, and preview the different icons and assessments included throughout the course. You will also explore and learn more about interactive reviews, novel units, and Independent Reading roles.

Lesson 1: Getting Started in Middle School Language Arts

Unit 2: Voices in Verse

In this unit, you will explore the Big Question: What is the secret to reaching someone with words? You will read poems multiple times to deepen your understanding of literature and to better understand the poet’s craft. You will read poetry to explore the structure of poems, and analyze figurative language and imagery. You will practice using context clues to determine the meaning of unfamiliar words and practice paraphrasing. Finally, you will identify and use subject complements and correct pronoun cases.

Objectives:

• Use context clues; paraphrase; analyze elements of poetry; analyze figurative language, sound devices, and connotation; analyze imagery; analyze description
• Identify subject complements; identify pronoun case
• Predict, define, and accurately use academic vocabulary words related to poetry and communication
• Read, analyze, and connect an independent reading text to other literature and your personal experiences
• Prewrite, draft, revise, and edit a critical review; revise writing for subject-verb agreement

Lesson 1: Introducing the Big Question

Objectives:

• Discuss with your partner the secret to reaching someone with words
• Predict the meaning of academic vocabulary words
• Define and accurately use academic vocabulary related to communication
• Preview titles for independent reading

Lesson 2: Close Reading Workshop: Poetry (three-day lesson)

Objectives:

• Support poetry analysis with textual evidence
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Conduct short-term research to enhance understanding of poetry

Lesson 3: Elements of Poetry

Objectives:
• Identify and define elements of poetry
• Analyze how elements of poetry are used in different poetic forms
• Identify and analyze examples of poetic language

Lesson 4: First Read: Poetry Collection 2

Objectives:
• Predict and define the meaning of academic vocabulary words
• Use context clues to help determine the meaning of unfamiliar words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading

Lesson 5: Second Read: Poetry Collection 2

Objectives:
• Define and accurately use academic vocabulary related to poetry
• Identify and analyze the use of figurative language in a poem
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how the elements of a poem contribute to its meaning

Lesson 6: Third Read: Poetry Collection 2 (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to poetry
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how the elements of a poem contribute to its meaning
• Support analysis of a poem with textual evidence
• Read and comprehend a variety of texts
• Identify subject complements

Lesson 7: WriteToLearn: Response to Literature (two-day lesson)

Objectives:
• Compose a critical review to demonstrate literary analysis of poetry
• Apply suggested revisions and edits to future written compositions

Lesson 8: Beginning the Writing Process (two-day lesson)

Objectives:
• Conduct short-term research to complement literary analysis
• Conduct research using credible sources in order to take notes and cite sources appropriately
• Demonstrate understanding of a critical review in order to begin the prewriting and planning stage of the writing process

Lesson 9: First Read: Poetry Collection 4

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Determine and paraphrase the meaning of poetry or poetic language

Lesson 10: Second Read: Poetry Collection 4

Objectives:
• Define and accurately use academic vocabulary related to poetry
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how the elements of a poem contribute to its meaning
• Analyze the use of word choice, imagery, and tone in poetry

Lesson 11: Third Read: Poetry Collection 4 (two-day lesson)

Objectives:
• Define and accurately use academic vocabulary related to poetry
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Analyze how the elements of a poem contribute to its meaning
• Support analysis of a poem with textual evidence
• Compare and contrast the independent reading selection with previous reading
• Identify correct pronoun case

Lesson 12: Writing the Rough Draft (two-day lesson)

Objectives:
• Use context to define multiple-meaning words
• Use a dictionary to define multiple-meaning words
• Compose the rough draft of a critical review

Lesson 13: Read: The Road Not Taken

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support poetry analysis with textual evidence

Lesson 14: Read: O Captain! My Captain!

Objectives:
• Predict and define the meaning of academic vocabulary words
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Support poetry analysis with textual evidence

Lesson 15: Comparing Types of Description (two-day lesson)

Objectives:
• Analyze how descriptive writing contributes to literal and symbolic meaning in a poem
• Compare and contrast the use of descriptive writing in two poems
• Support poetry analysis with textual evidence

Lesson 16: Writing the Final Draft (two-day lesson)

Objectives:
• Apply revisions and edits to a rough draft
• Construct the final draft of a critical review
• Revise writing for subject-verb agreement

Lesson 17: Text Set (three-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Read and analyze literary and informational texts, citing textual evidence to support analysis
• Conduct research using credible sources in order to take notes and cite sources appropriately
• Compose a discussion board post, drawing evidence from literary and informational texts to support analysis and reflection
• Discuss issues of connecting generations, referencing texts in this unit and personal experience

Lesson 18: Unit Review (two-day lesson)

Objectives:
• Use context clues; paraphrase; analyze elements of poetry; analyze figurative language, sound devices, and connotation; analyze imagery; analyze description
• Identify subject complements, identify pronoun case
• Predict, define, and accurately use academic vocabulary words related to poetry and communication
Lesson 19: Voices in Verse Unit Test

Objectives:
- Use context clues; paraphrase; analyze elements of poetry; analyze figurative language, sound devices, and connotation; analyze imagery; analyze description
- Identify subject complements, identify pronoun case
- Predict, define, and accurately use academic vocabulary words related to poetry and communication
- Read, analyze, and connect an independent reading text to other literature and your personal experiences
- Prewrite, draft, revise, and edit a critical review; revise writing for subject-verb agreement

Unit 3: Dialogue and Discovery

In this unit, you will explore the Big Question: Is it our differences or our similarities that matter most? You will read selections from a drama multiple times to deepen your understanding of literature and to understand the playwright’s craft better. You will read drama to explore structure of dramas, dialogue, and characters’ motivations. You will practice identifying cause and effect, drawing conclusions, and comparing adaptations to originals. Finally, you will identify and use prepositions, participles, and infinitives in related phrases.

Objectives:
- Identify cause and effect; draw conclusions; analyze elements of drama, analyze action and conflict, character’s motivation, and setting; compare adaptations to originals
- Identify and use prepositions and prepositional phrases, identify and use participial and infinitive phrases
- Predict, define, and accurately use academic vocabulary words related to classification and drama
- Prewrite, draft, revise, and edit a research presentation; revise writing using participles
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 1: Introducing the Big Question

Objectives:
- Discuss with a partner whether our differences or similarities matter most
- Predict meaning of academic vocabulary words
- Define and accurately use academic vocabulary related to classification
- Preview titles for independent reading

Lesson 2: Close Reading Workshop: Drama (two-day lesson)

Objectives:
- Support analysis of drama with textual evidence
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Conduct short-term research to enhance understanding of drama

Lesson 3: Elements of Drama (two-day lesson)

Objectives:
- Identify and define elements of drama
- Analyze how dramatic elements contribute to the meaning of a drama

Lesson 4: First Read: The Diary of Anne Frank, Act I (three-day lesson)
Lesson 5: Second Read: The Diary of Anne Frank, Act I (three-day lesson)

Objectives:
- Define and accurately use academic vocabulary related to classification
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how dramatic elements contribute to the meaning of a drama
- Analyze dialogue to understand characters, tone, and plot

Lesson 6: Third Read: The Diary of Anne Frank, Act I (three-day lesson)

Objectives:
- Predict, define, and accurately use academic vocabulary words related to classification and drama
- Support analysis of a drama with textual evidence
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how dramatic elements contribute to the meaning of a drama
- Identify and correctly use prepositions and prepositional phrases

Lesson 7: Planning the Presentation (two-day lesson)

Objectives:
- Conduct short-term research to enhance understanding of drama
- Conduct research using credible sources; taking notes and using the appropriate format for citing sources
- Demonstrate understanding of a research presentation in order to begin the prewriting and planning stages

Lesson 8: First Read: The Diary of Anne Frank, Act II (three-day lesson)

Objectives:
- Predict and define the meaning of academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze cause and effect
- Analyze how dramatic elements contribute to the meaning of a drama

Lesson 9: Second Read: The Diary of Anne Frank, Act II (three-day lesson)

Objectives:
- Predict and define the meaning of academic vocabulary words
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how dramatic elements contribute to the meaning of a drama
- Infer characters’ motivations from clues in dialogue and action

Lesson 10: Third Read: The Diary of Anne Frank, Act II (three-day lesson)

Objectives:
- Predict and define the meaning of academic vocabulary words
- Support analysis of a drama with textual evidence
- Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
- Analyze how dramatic elements contribute to the meaning of a drama
- Identify and use prepositions and prepositional phrases
- Identify and use participial and infinitive phrases

Lesson 11: Creating the Presentation (two-day lesson)
Objectives:
• Identify borrowed and foreign words to decode word meanings
• Develop a thesis statement that expresses the main idea of a research presentation
• Compose the rough draft of a research presentation
• Prewrite, draft, revise, and edit a research presentation; revise writing using participles

Lesson 12: Read: The Governess (two-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Use details from a drama to draw conclusions about ideas that are not directly stated
• Analyze setting and character to deepen understanding of a drama

Lesson 13: Read: The Ninny (two-day lesson)

Objectives:
• Support literary analysis with textual evidence
• Apply reading strategies to identify key ideas and details, analyze craft and structure, and make connections while reading
• Compare and contrast an original short story to the play adapted from it

Lesson 14: Comparing Adaptations to Originals (two-day lesson)

Objectives:
• Support literary analysis with textual evidence
• Compare and contrast an original short story to the play adapted from it

Lesson 15: Publishing the Presentation (two-day lesson)

Objectives:
• Apply revisions and edits to a rough draft
• Construct the final draft of research presentation
• Prewrite, draft, revise, and edit a research presentation; revise writing using participles
• Revise writing to combine sentences using gerunds and participles

Lesson 16: Text Set (three-day lesson)

Objectives:
• Predict and define the meaning of academic vocabulary words
• Read and analyze literary and informational texts, citing textual evidence to support analysis
• Conduct research using credible sources in order to take notes and cite sources appropriately
• Compose a discussion board post, drawing evidence from literary and informational texts to support analysis and reflection
• Discuss issues of differences and similarities referencing texts in this unit and personal experience

Lesson 17: Unit Review (two-day lesson)

Objectives:
• Identify cause and effect; draw conclusions; analyze elements of drama, analyze action and conflict, character’s motivation, and setting; compare adaptations to originals
• Identify and use prepositions and prepositional phrases, identify and use participial and infinitive phrases
• Predict, define, and accurately use academic vocabulary words related to classification and drama
• Prewrite, draft, revise, and edit a research presentation; revise writing using participles
• Read, analyze, and connect an independent reading text to other literature and your personal experiences

Lesson 18: Dialogue and Discovery Unit Test
Objectives:
- Identify cause and effect; draw conclusions; analyze elements of drama, analyze action and conflict, character’s motivation, and setting; compare adaptations to originals
- Predict, define, and accurately use academic vocabulary words related to classification and drama
- Prewrite, draft, revise, and edit a research presentation; revise writing using participles
- Read, analyze, and connect an independent reading text to other literature and your personal experiences

Unit 4: The Giver

Eleven-year-old Jonas lives in a seemingly ideal world. There is no war or pain, and there are no choices. Every person is assigned a role in the community. When Jonas turns 12, he is chosen to receive special training from the Giver himself—a man who alone holds the key to the true pain and pleasure of life: memories. Now it is time for Jonas to receive the truth. What will Jonas do once he experiences the power of deep emotions? This gripping and provocative Newbery Award-winning novel keeps readers turning the pages and exploring the special qualities that make each of us human. As you read, you will identify literary elements such as setting, characters, plot, and theme.

Ella Minnow Pea and her family live on the fictional island of Nollop. This tiny independent country has just one claim to fame: it is the birthplace of Nevin Nollop, the creator of the popular pangram "The quick brown fox jumps over the lazy dog." Like most of her fellow citizens, Ella loves the English language and is devastated to learn that the High Council has banned the use of certain letters of the alphabet in writing or speech. In a race against the clock, Ella must help create a new pangram consisting of only 32 letters. If she is successful, the islanders will regain the right to communicate freely, and Ella will be reunited with her loved ones. As you read *Ella Minnow Pea*, you will define vocabulary words in context and analyze literary elements.

*The Giver* is the recommended novel for Language Arts 8. *Ella Minnow Pea* may be read instead of *The Giver* with prior teacher approval. Lessons and activities for *Ella Minnow Pea* will appear on the lower half of the page. Do not proceed with *Ella Minnow Pea* unless you have received approval from your teacher.

Objectives:
- Summarize the key ideas and events in a science fiction novel
- Analyze connections between the characters, setting, plot, theme, and other story elements
- Analyze and compare actions of heroic characters
- Determine how cultural context affects character, setting, and plot
- Analyze how the background and experiences of authors influence their writing

Lesson 1: Setting Background for The Giver

Objectives:
- Define new vocabulary and identify words in context
- Conduct research to learn biographical information about the author
- Understand the cultural context of the novel

Lesson 2: The Giver, Chapters 1–2

Objectives:
- Define new vocabulary and identify words in context
- Support analysis of reading with textual evidence
- Draw inferences to determine the setting of the novel and how it relates to the text

Lesson 3: The Giver, Chapters 3–5

Objectives:
- Define new vocabulary and identify words in context
- Support analysis of reading with textual evidence
- Analyze characters and character traits

Lesson 4: The Giver, Chapters 6–7
Objectives:
- Define new vocabulary and identify words in context
- Support analysis of reading with textual evidence
- Identify key events in the plot

Lesson 5: The Giver, Chapters 8–10

Objectives:
- Define new vocabulary and identify words in context
- Draw inferences in order to analyze events in the text
- Identify and examine character interactions and plot events that create conflict in a narrative
- Read, discuss, analyze, and demonstrate comprehension of grade-level texts
- Reflect on reading role in writing

Lesson 6: The Giver, Chapters 11–12

Objectives:
- Define new vocabulary and identify words in context
- Draw inferences in order to analyze events in the text
- Identify key events in the plot
- Summarize events and key ideas in the text

Lesson 7: The Giver, Chapters 13–14

Objectives:
- Define new vocabulary and identify words in context
- Draw inferences in order to analyze events in the text
- Identify events and key ideas in the plot
- Analyze how an author develops the theme of a text

Lesson 8: The Giver, Chapters 15–17

Objectives:
- Define new vocabulary and identify words in context
- Identify key ideas and analyze events to determine the development of plot and conflict
- Analyze how an author develops the theme of a text
- Summarize events and key ideas in the text
- Analyze dialogue and interactions between characters to determine character traits and relationships
- Read, discuss, analyze, and demonstrate comprehension of grade-level texts
- Reflect on reading role in writing

Lesson 9: The Giver, Chapters 18–19

Objectives:
- Define new vocabulary and identify words in context
- Support analysis of reading with textual evidence
- Identify key ideas and analyze events to determine the development of plot and conflict
- Identify the actions and characteristics of heroic characters

Lesson 10: The Giver, Chapters 20–21

Objectives:
- Define new vocabulary and identify words in context
- Support analysis of reading with textual evidence
- Identify key ideas and analyze events to determine the development of plot and conflict
- Analyze characters and character traits

Lesson 11: The Giver, Chapters 22–23

Objectives:
- Define new vocabulary and identify words in context
• Support analysis of reading with textual evidence
• Analyze the development of plot elements, characters and character traits and theme in a novel
• Understand the cultural context of the novel
• Identify the actions and characteristics of heroic characters
• Read, discuss, analyze, and demonstrate comprehension of grade-level texts
• Reflect on reading role in writing
ENGLISH 9 A
English 9 A

This is the first of two courses that comprise English 9. In this course, the student will take an in-depth look at a variety of literature selections. In reading and responding to these diverse selections, the student will gain a thorough understanding of fiction and nonfiction genres, including short stories, essays, poetry, and drama. The student will also read Jack London’s *The Call of the Wild*. This selection enables the student to explore universal themes and make connections between the characters’ experiences and his own. Harper Lee's *To Kill a Mockingbird* may be read instead of *The Call of the Wild*. Writing instruction focuses on analytical and expository writing but also provides opportunities for the student to write creatively.

Unit 1: Growing Up

In this unit, you will analyze fiction, nonfiction, and poetry selections focused on the theme of growing up. As you read, you will apply active reading strategies, such as making inferences and forming personal connections with the text. You will also learn to understand and analyze elements of prose and poetry, such as point of view, character, setting, symbolism, and metaphor. Throughout the unit, you will also learn strategies for learning new vocabulary, such as understanding word roots, prefixes, and suffixes. Grammar instruction will focus on reviewing the eight parts of speech. Finally, you will develop your writing skills as you create a personal narrative.

Objectives:
- Understand and analyze fiction and nonfiction narratives and poetry
- Apply a variety of active reading strategies
- Learn and apply strategies for developing vocabulary
- Learn elements of grammar, usage, and style, focusing on the parts of speech
- Use the writing process to compose a personal narrative

Lesson 1: Growing Up: Unit Introduction

Objectives:
- Become familiar with the structure of the English 9 course
- Identify major genres, structural components, and literary devices in different types of literature
- Review the stages of the writing process
- Review strategies for learning new vocabulary
- Review the parts of speech

Lesson 2: The Bass, the River, and Sheila Mant: Wetherell

Objectives:
- Understand the characteristics of the first-person point of view
- Evaluate the effect of using first-person narration
- Understand and apply active reading strategies
- Use prewriting strategies to begin generating ideas for a narrative
- Understand and apply strategies for understanding new vocabulary
- Use nouns and pronouns correctly in writing

Lesson 3: I Know Why the Caged Bird Sings: Angelou (two-day lesson)

Objectives:
- Understand the importance of setting in a narrative
- Understand and apply active reading strategies
- Use prewriting strategies to develop ideas for a narrative
- Learn common suffixes as a strategy for understanding new vocabulary
- Use nouns and pronouns correctly in writing

Lesson 4: Poems of Passage: Booth, Collins, Lorde

Objectives:
- Understand the role of the speaker in poetry
- Understand and apply active reading strategies
- Use prewriting strategies to organize ideas for a narrative
- Learn Greek word roots as a strategy for understanding new vocabulary
- Understand characteristics of action verbs
Lesson 5: My Forbidden Face: Latifa (two-day lesson)

Objectives:
- Understand the use of metaphor in prose
- Understand and apply active reading strategies
- Use drafting strategies to begin writing a narrative
- Learn suffixes as a strategy for understanding new vocabulary
- Understand characteristics of linking verbs

Lesson 6: Writing Workshop: Family Narrative (two-day lesson)

Objectives:
- Use drafting strategies to compose a personal narrative
- Use vocabulary words correctly in writing
- Use specific nouns and verbs in writing

Lesson 7: My Brother's Keeper: Bennett (two-day lesson)

Objectives:
- Make connections between texts
- Use suffixes to understand new vocabulary
- Understand the characteristics of prepositions and conjunctions
- Understand techniques an author uses to develop characters in a story

Lesson 8: Language Focus: Word Choice and Voice

Objectives:
- Understand the relationship between word choice and voice in writing
- Begin revising a narrative to improve voice
- Use parts of speech correctly in writing

Lesson 9: Growing Up: Unit Review

Objectives:
- Review major genres, structural components, and literary devices in different types of literature
- Review the elements of narrative
- Review strategies for learning new vocabulary
- Review the parts of speech

Lesson 10: Growing Up: Unit Test

Lesson 11: Writing Workshop: Family Narrative (two-day lesson)

Objectives:
- Use revising and editing strategies to compose the final draft of a personal narrative
- Use vocabulary words correctly in writing
- Use the parts of speech correctly in writing

Unit 2: The Forces of Nature

In this unit, you will analyze fiction, nonfiction, and poetry selections about the natural world, with a focus on nonfiction selections. As you read, you will apply active reading strategies such as analyzing details and using text features and graphics to understand informational texts. You will also learn to understand and analyze elements of prose and poetry such as irony, figurative language, and text structure. Throughout the unit, you will also learn strategies for learning new vocabulary, with a focus on using context clues and understanding multiple-meaning words. Grammar instruction will focus on understanding the components of a sentence and using different sentence types. Finally, you will develop your writing skills as you create a descriptive essay.

Objectives:
- Understand and analyze fiction, nonfiction, and poetry
- Apply a variety of active reading strategies for understanding nonfiction
- Learn and apply strategies for developing vocabulary
- Learn elements of grammar, usage, and style, focusing on the sentence base
- Use the writing process to compose a descriptive essay
Lesson 1: The Forces of Nature: Unit Introduction
Objectives:
• Review strategies for active reading
• Begin generating ideas for a description
• Review strategies for learning new vocabulary
• Review the components of a sentence

Lesson 2: Of Wolves and Men: Lopez
Objectives:
• Identify important details in a nonfiction selection
• Use details to understand the narrator's point of view
• Understand the characteristics of subjects and predicates
• Generate ideas for a description

Lesson 3: An Inconvenient Truth: Gore (two-day lesson)
Objectives:
• Use text features to improve understanding of a nonfiction text
• Analyze the use of graphics in a nonfiction informational text
• Use context clues to understand new vocabulary
• Understand and identify complements in a sentence

Lesson 4: Writing Workshop: Description (two-day lesson)
Objectives:
• Use drafting strategies to compose a description
• Use vocabulary words correctly in writing
• Apply understanding of sentence variety in writing

Lesson 5: Tsunami 2004 (two-day lesson)
Objectives:
• Use text features to understand nonfiction articles
• Compare how the same subject is treated in a news article and a feature article
• Use context clues to understand new vocabulary
• Understand and identify complements in a sentence

Lesson 6: Language Focus: Sentence Fluency and Voice
Objectives:
• Understand the relationship between sentence variety and voice in writing
• Begin revising a description to improve sentence fluency
• Use varied sentence types in writing

Lesson 7: The Forces of Nature: Unit Review
Objectives:
• Review characteristics of expository nonfiction
• Review strategies for understanding informational texts
• Review strategies for learning new vocabulary
• Review the parts of a sentence and different sentence types

Lesson 8: The Forces of Nature: Unit Test

Lesson 9: Writing Workshop: Description (two-day lesson)
Objectives:
• Use revising and editing strategies to compose the final draft of a description
• Use vocabulary words correctly in writing
• Use varied sentence types in writing

Unit 3: The Call of the Wild
Jack London’s *The Call of the Wild* follows the journey of Buck, a magnificent St. Bernard/Scotch shepherd dog, as he is kidnapped from comfortable surroundings and thrown into the harsh frontier life of the 1897 gold rush in the arctic North. You will read of how he not only adapts to new conditions but also awakens to ancient instincts as he triumphs despite and amidst the new challenges of his changing environment. In this unit, you will identify and analyze literary elements, discover new vocabulary terms, and use comprehension strategies to make connections and draw conclusions.

*The Call of the Wild* is the recommended novel for English 9. Harper Lee’s novel *To Kill a Mockingbird* may be read instead of *The Call of the Wild* with prior teacher approval. Lessons and activities for *To Kill a Mockingbird* will appear on the lower half of the page, as seen below. Do not proceed with *To Kill a Mockingbird* unless you have received approval from your teacher.

**Objectives:**
- Develop and apply effective comprehension strategies
- Read and analyze the text, then respond to questions
- Analyze relationships between and among characters, setting, and events
- Define new vocabulary and identify words in context

**Lesson 1: The Call of the Wild: Unit Introduction**

Objectives:
- Examine the historical background of the novel
- Connect the author’s life to the novel’s setting and plot
- Identify geographical landmarks specific to the novel

**Lesson 2: Chapter 1: Into the Primitive**

Objectives:
- Identify point of view and types of narration
- Develop and apply effective comprehension strategies
- Define new vocabulary and identify words in context

**Lesson 3: Chapter 2: The Law of Club and Fang**

Objectives:
- Define and analyze different types of conflict
- Identify dialect and its purpose
- Analyze relationships between and among characters, setting, and plot
- Define new vocabulary and identify words in context

**Lesson 4: Chapter 3: The Dominant Primordial Beast**

Objectives:
- Analyze how conflicts in the novel develop the plot
- Define new vocabulary and identify words in context

**Lesson 5: Chapter 4: Who Has Won to Mastership**

Objectives:
- Define theme
- Analyze themes in the novel
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context

**Lesson 6: Chapter 5: The Toil of Trace and Trail (two-day lesson)**

Objectives:
- Define and analyze setting
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Enrich reading by visualizing

**Lesson 7: Chapter 6: For the Love of a Man**

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
• Describe how an author develops a character

Lesson 8: Chapter 7: The Sounding of the Call (two-day lesson)

Objectives:
• Identify and evaluate themes in the novel
• Read and analyze the text, then respond to questions
• Define new vocabulary and identify words in context

Lesson 9: The Call of the Wild: Unit Review

Objectives:
• Study vocabulary and review previous lesson goals
• Prepare for unit test

Lesson 10: The Call of the Wild: Unit Test

Objectives:
• Assess reading comprehension and literary analysis through a unit test

Unit 4: Other Worlds

In this unit, you will read and analyze works of science fiction that depict imaginary worlds. Additionally, you will read essays that explore how science fiction and video games have influenced our culture. As you read, you will continue to apply active reading strategies, such as analyzing details and summarizing, to help prepare you to critique these texts. You will analyze how the elements of short stories are used in the science-fiction genre and compare stories within this genre before writing a critical response to a short story. Throughout the unit, you will also learn strategies for understanding scientific and technical vocabulary in context. Grammar instruction will focus on using punctuation correctly and following standard conventions for using italics and quotation marks.

Objectives:
• Understand and analyze science fiction selections and related literature from other genres
• Apply a variety of active reading strategies
• Learn and apply strategies for developing vocabulary
• Learn elements of grammar, usage, and style, focusing on punctuation
• Use the writing process to compose a critical response to literature

Lesson 1: Other Worlds: Unit Introduction

Objectives:
• Understand characteristics of science fiction
• Identify strategies for evaluating a text
• Review strategies for learning new vocabulary
• Understand how to use end punctuation marks correctly

Lesson 2: A Sound of Thunder: Bradbury (two-day lesson)

Objectives:
• Analyze an author’s use of different techniques of characterization
• Practice strategies for evaluating a text
• Learn strategies for understanding scientific and technical vocabulary
• Understand how to use commas to separate items in a series

Lesson 3: Nethergrave: Skurzynski (two-day lesson)

Objectives:
• Analyze a character's motivation in a science fiction story
• Practice strategies for evaluating a text
• Learn strategies for understanding scientific and technical vocabulary
• Compare texts within the same genre
• Understand how to use commas correctly

Lesson 4: Writing Workshop: Critical Response (two-day lesson)

Objectives:
Lesson 5: Comparing Texts: Brown and Brautigan

Objectives:
• Compare the ways in which works from different genres address similar themes
• Understand how chronological order is used to organize events in a biography
• Learn strategies for understanding scientific and technical vocabulary
• Understand how to use commas to set off nonessential information

Lesson 6: Language Focus: Writing Conventions

Objectives:
• Understand the importance of following standard conventions in academic writing
• Develop a personal editing checklist to improve adherence to standard writing conventions
• Use end punctuation, commas, italics, and quotation marks correctly in writing

Lesson 7: Other Worlds: Unit Review

Objectives:
• Review characteristics of science fiction
• Review strategies for comparing and evaluating texts
• Review strategies for learning new vocabulary
• Review conventions for end punctuation, commas, italics, and quotation marks

Lesson 8: Other Worlds: Unit Test

Lesson 9: Writing Workshop: Critical Response (two-day lesson)

Objectives:
• Use revising and editing strategies to compose the final draft of a critical response essay
• Use vocabulary words correctly in writing
• Use end punctuation, commas, italics, and quotation marks correctly in writing

Unit 5: Crossing Borders

In this unit, you will read and analyze works of fiction and nonfiction that explore the theme of crossing borders. These borders may be physical—for instance, the geographical borders between two countries—or psychological. You will apply active reading strategies such as making predictions, understanding text structures, and understanding the author’s purpose. You will analyze writers’ use of figurative language, dialect, and tone, as well as their techniques for developing conflict. As part of your exploration of the theme of crossing borders, you will write an informational essay about a cultural tradition. Throughout the unit, you will also practice the strategies for understanding vocabulary that you have learned throughout the semester. Grammar instruction will focus on phrases and clauses.

Objectives:
• Understand and analyze fiction and nonfiction selections with common themes
• Apply a variety of active reading strategies
• Learn and apply strategies for developing vocabulary
• Learn elements of grammar, usage, and style, focusing on phrases and clauses
• Use the writing process to compose an informational essay

Lesson 1: Crossing Borders: Unit Introduction
Lesson 2: Delfino II: Diez in the Desert (two-day lesson)

Objectives:
- Analyze how an author develops mood in an essay
- Understand the use of imagery, details, and dialogue to create mood
- Understand the difference between independent and subordinate clauses

Lesson 3: Writing Workshop: Informational Essay

Objectives:
- Use drafting strategies to compose an informational essay
- Use vocabulary words correctly in writing
- Use phrases and clauses correctly in writing

Lesson 4: Hip-Hop Planet: McBride

Objectives:
- Understand how a writer's purpose and audience determine the content of an essay
- Analyze how a writer uses similes for effect in an informational essay
- Understand the four types of sentence structure

Lesson 5: Language Focus: Transitions and Organization

Objectives:
- Understand the importance of organizing ideas clearly in writing
- Use transitional phrases to improve organization in an essay
- Use phrases and clauses correctly in writing
- Understand how to correct common sentence errors: fragments and run-on sentences

Lesson 6: Crossing Borders: Unit Review

Objectives:
- Review unit theme
- Review strategies for comparing themes across texts
- Review strategies for learning new vocabulary
- Review phrases and clauses

Lesson 7: Crossing Borders: Unit Test

Lesson 8: Writing Workshop: Informational Essay (two-day lesson)

Objectives:
- Use revising and editing strategies to compose the final draft of an informational essay
- Use vocabulary words correctly in writing
- Use phrases and clauses correctly in writing
- Use transitional phrases to improve organization in an informational essay

Unit 6: Semester Exam

Lesson 1: Semester Review

Lesson 2: Semester Exam
ENGLISH 9 B
English 9 B

This is the second of two courses that comprise English 9. In this course, the student continues to explore a variety of literature selections from world literature, including well-known works. The student will learn strategies for reading epic poetry and study the characteristics of suspense stories. Also, the student will analyze the elements of drama as he reads William Shakespeare’s *Romeo and Juliet*. George Orwell’s *Animal Farm* may be read instead of *Romeo and Juliet*.

Writing instruction focuses on analytical and expository writing including in-depth instruction in the process of writing a research paper. This project teaches the student to critically analyze primary and secondary sources and to effectively support his ideas with information gathered from outside sources.

Unit 1: Echoes from the Past

In this unit, you will analyze fiction, nonfiction, and poetry selections focused on ancient myths and literature. As you read, you will apply active reading strategies, such as making inferences and forming personal connections with the text. You will also learn to understand and analyze elements of epic poetry such as myth, figurative language, character, and tone. Throughout the unit, you will also learn strategies for learning new vocabulary, such as understanding multiple-meaning words and using a dictionary. Grammar instruction will focus on reviewing the use of pronouns. Finally, you will develop your writing skills as you create a summary for one of the selections in this unit.

Objectives:
- Understand and analyze characteristics of the epic poetic genre
- Apply a variety of active reading strategies
- Review strategies for learning new vocabulary
- Learn elements of grammar, usage, and style, focusing on pronouns
- Write a summary

Lesson 1: Echoes from the Past: Unit Introduction

Objectives:
- Understand characteristics of the epic poetry genre
- Understand the elements of an effective summary
- Review strategies for learning new vocabulary
- Review characteristics of pronouns

Lesson 2: The Odyssey, Part I (three-day lesson)

Objectives:
- Analyze the use of similes in an epic poem
- Apply reading strategies for understanding an epic poem
- Review strategies for learning new vocabulary
- Understand the three cases of personal pronouns and when to use each case

Lesson 3: The Odyssey, Part II (three-day lesson)

Objectives:
- Analyze the use of epic similes in an epic poem
- Apply reading strategies for understanding an epic poem
- Review strategies for learning new vocabulary
- Avoid common pronoun usage errors

Lesson 4: The Odyssey, Part III (three-day lesson)

Objectives:
- Analyze the elements of poetry in an epic poem
- Apply reading strategies for understanding an epic poem
- Review strategies for learning new vocabulary
- Understand conventions for pronoun-antecedent agreement

Lesson 5: Orpheus and Eurydice (two-day lesson)
Objectives:
• Understand the characteristics of myths
• Understand the use of figurative language, such as hyperbole and metaphor, in prose
• Review strategies for learning new vocabulary
• Review rules for correct pronoun usage

Lesson 6: Language Focus: Expressing Ideas Concisely
Objectives:
• Understand techniques for improving conciseness in writing
• Use pronouns correctly in writing

Lesson 7: Writing Workshop: Summary (two-day lesson)
Objectives:
• Use drafting, revising, and editing strategies to compose a summary
• Use vocabulary words correctly in writing
• Use pronouns correctly in writing

Lesson 8: Echoes from the Past: Unit Review
Objectives:
• Review characteristics of epic poetry
• Review poetic devices
• Review the conventions of correct pronoun usage

Lesson 9: Echoes from the Past: Unit Test

Unit 2: Romeo and Juliet
William Shakespeare’s classic tragedy Romeo and Juliet tells the story of two youths desperately in love with each other despite the feud that exists between their two families. They are secretly married, but on the same day as their marriage, Romeo is banished for killing Juliet’s kinsman. While he is gone, Juliet fakes her death by taking a poisonous potion in order to avoid an arranged marriage. Romeo does not learn in time that she is not really dead, and kills himself as a result. Upon waking, Juliet discovers Romeo and joins him in death. Through Shakespeare’s timeless story, you will identify and analyze literary and dramatic elements, discover new vocabulary terms, and use comprehension strategies to make connections and draw conclusions.

Romeo and Juliet is the recommended text for English 9. George Orwell’s novel Animal Farm may be read instead of Romeo and Juliet with prior teacher approval. Lessons and activities for Animal Farm will appear on the lower half of the lesson pages.

Teachers may access Animal Farm assessments in the Virtual Library.

Objectives:
• Identify and analyze dramatic elements
• Develop and apply effective comprehension strategies
• Read and analyze the text, then respond to questions
• Analyze relationships between and among characters, setting, and events
• Define new vocabulary and identify words in context

Lesson 1: Romeo and Juliet: Unit Introduction
Objectives:
• Learn about the author’s life
• Learn about the historical background of the author’s life
• Identify the elements of drama
• Identify literary characteristics specific to the play

Lesson 2: Romeo and Juliet: Act I
• Define new vocabulary and identify words in context

Lesson 3: Romeo and Juliet: Act I, continued (two-day lesson)

Objectives:
• Read and analyze the text, then respond to questions
• Analyze dialogue
• Analyze the types of dramatic speech
• Analyze relationships between and among characters, setting, and events
• Define new vocabulary and identify words in context

Lesson 4: Romeo and Juliet: Act II (two-day lesson)

Objectives:
• Identify the role of conflict in plot
• Define the elements of plot
• Analyze the structure of a five-act play
• Read and analyze the text, then respond to questions
• Define new vocabulary and identify words in context

Lesson 5: Romeo and Juliet: Act II, continued (two-day lesson)

Objectives:
• Define theme
• Analyze themes in the novel
• Analyze tragedy
• Read and analyze the text, then respond to questions
• Define new vocabulary and identify words in context

Lesson 6: Romeo and Juliet: Act III

Objectives:
• Define and analyze setting
• Identify the elements of blank verse
• Read and analyze the text, then respond to questions
• Define new vocabulary and identify words in context

Lesson 7: Romeo and Juliet: Act III, continued (two-day lesson)

Objectives:
• Describe how an author develops a character
• Read and analyze the text, then respond to questions
• Define new vocabulary and identify words in context

Lesson 8: Romeo and Juliet: Act IV

Objectives:
• Analyze comic relief as a dramatic element
• Recognize the three types of irony
• Read and analyze the text, then respond to questions
• Define new vocabulary and identify words in context

Lesson 9: Romeo and Juliet: Act IV, continued (two-day lesson)

Objectives:
• Identify and evaluate figurative language in the play
• Read and analyze the text, then respond to questions
• Define new vocabulary and identify words in context

Lesson 10: Romeo and Juliet: Act V

Objectives:
• Analyze stage directions
• Recognize the features of the Globe Theatre
• Read and analyze the text, then respond to questions
• Define new vocabulary and identify words in context

Lesson 11: Romeo and Juliet: Act V, continued
Objectives:
• Identify and evaluate themes in the play
• Read and analyze the text, then respond to questions
• Define new vocabulary and identify words in context

Lesson 12: Writing Workshop: Persuasive Essay (two-day lesson)

Objectives:
• Analyze the components of a persuasive essay
• Write a persuasive essay
• Revise and edit for content, grammar, spelling, and formatting

Lesson 13: Romeo and Juliet: Unit Review

Objectives:
• Study vocabulary and review previous lesson goals

Lesson 14: Romeo and Juliet: Unit Test

Unit 3: The Research Paper

In this unit, you will develop important reading and analytical writing skills as you research and write about a topic of your choice. The lessons in the unit are planned to guide you through the challenging but rewarding process of writing a research paper. You will complete this project in three main phases:

• forming research questions and gathering information
• organizing and analyzing your research findings
• combining your own ideas with information from your research to create an effective, well-supported research paper

This unit differs from other units in the English 9 course in that it includes fewer reading assignments from your textbooks. Most of the reading you complete will be conducted as part of your research. Please note that it is especially important that you complete and turn in writing assignments consistently throughout this unit, since each new assignment builds on the work completed previously. Completing assignments on time and in order will help ensure that you have adequate time to develop and refine your ideas and to incorporate feedback from your teacher.

Objectives:
• Formulate original research questions and conduct research using a variety of primary and secondary sources
• Apply reading strategies, including skimming and scanning, to conduct a critical evaluation of sources and to understand the use of text features in identifying research resources
• Use effective note-taking and outlining strategies to summarize, paraphrase, synthesize, and organize information
• Write a research paper, based on an original thesis statement, that is appropriate to its purpose, and develop a multimedia presentation based on that research paper
• Revise and edit a research paper for focus, organization, correctness, voice, and idea development, and use feedback to edit and revise the research paper

Lesson 1: Unit Introduction: The Research Paper

Objectives:
• Generate a topic for an original research paper
• Conduct preliminary research to identify potential areas of focus

Lesson 2: Prewriting: Forming Research Questions

Objectives:
• Conduct preliminary research to identify potential areas of focus
• Develop a list of major questions to guide research
• Identify the differences between primary and secondary sources and examples of each source type
• Understand writing conventions for capitalization

Lesson 3: Prewriting: Developing a Research Proposal
Objectives:
- Draft a 1-page research proposal explaining topic, major research questions, and potential areas of focus
- Identify the differences between primary and secondary sources and examples of each source type
- Understand writing conventions for capitalization

Lesson 4: Prewriting: Gathering Information

Objectives:
- Identify the differences between primary and secondary sources and examples of each source type
- Understand writing conventions for capitalization

Lesson 5: Prewriting: Evaluating Information

Objectives:
- Critically evaluate print and electronic informational resources
- Understand writing conventions for using apostrophes

Lesson 6: Prewriting: Taking Notes (two-day lesson)

Objectives:
- Practice effective note-taking strategies, including summarizing and paraphrasing
- Use research questions to guide note-taking
- Understand writing conventions for using semicolons

Lesson 7: Prewriting: Synthesizing Information (two-day lesson)

Objectives:
- Synthesize ideas and details from multiple informational texts
- Use information from a variety of sources to begin formulating answers to the research questions
- Understand writing conventions for using semicolons

Lesson 8: Prewriting: Organizing Ideas

Objectives:
- Craft a concise and effective thesis that states the controlling idea of the research paper
- Develop an outline that identifies main ideas and supporting details
- Understand writing conventions for using hyphens, dashes, and parentheses

Lesson 9: Drafting: Getting Started

Objectives:
- Write a clear and engaging introduction with an effective thesis statement
- Use an outline to develop body paragraphs
- Review conventions for capitalization and punctuation

Lesson 10: Drafting: Integrating Ideas (two-day lesson)

Objectives:
- Write body paragraphs with a clear organizational structure
- Integrate original ideas with information from outside sources effectively
- Understand and apply conventions for in-text citations using MLA style

Lesson 11: Drafting: Wrapping It Up

Objectives:
- Write a memorable conclusion that effectively summarizes the main ideas of the research paper
- Review a peer’s research paper and evaluate how well it fulfills the writing purpose
- Understand and apply conventions for in-text citations using MLA style
Lesson 12: Revising: Identifying Trouble Spots

Objectives:
• Review key traits of effective writing (focus, organization, idea development, voice)
• Identify possible areas for revision based on key writing traits
• Begin revising the research paper to improve it in any of the following areas: focus, organization, voice, idea development

Lesson 13: Revising: Working With Feedback

Objectives:
• Use feedback to revise and edit a research paper

Lesson 14: Editing: Citing Works Using MLA Format

Objectives:
• Follow appropriate conventions for documenting information from primary and secondary sources
• Create a Works Cited page using MLA format

Lesson 15: Editing: Polishing, Proofreading, and Publishing

Objectives:
• Edit, publish, and reflect on the final draft of a research paper

Unit 4: The Dark Side

In this unit, you will analyze fiction, nonfiction, and poetry selections belonging to the suspense and horror genres. As you read, you will apply active reading strategies, such as making predictions and asking questions to better understand the text. You will also learn to understand and analyze elements of suspense and horror narratives such as foreshadowing, stock characters and archetypes, and the role of unreliable narrators. You will also examine literary elements such as poetic devices and tone. Throughout the unit, you will also learn strategies for learning new vocabulary, such as understanding denotation and connotation and the use of archaic language. Grammar instruction will focus on reviewing the rules of subject-verb agreement and the use of adjectives and adverbs.

Objectives:
• Understand and analyze characteristics of the suspense and horror genres
• Apply a variety of active reading strategies
• Review strategies for learning new vocabulary
• Learn elements of grammar, usage, and style, focusing on subject-verb agreement, adjectives, and adverbs

Lesson 1: The Dark Side: Unit Introduction

Objectives:
• Understand characteristics of the literary genres of suspense and horror
• Review strategies for learning new vocabulary
• Review rules for subject-verb agreement

Lesson 2: The Most Dangerous Game: Connell (two-day lesson)

Objectives:
• Understand an author’s use of foreshadowing to create suspense in a story
• Understand the connotative and denotative meanings of new vocabulary
• Understand and apply writing conventions for subject-verb agreement

Lesson 3: The Cask of Amontillado: Poe (two-day lesson)

Objectives:
• Understand the characteristics of an unreliable narrator
• Analyze how an author uses an unreliable narrator for effect in a short story
• Understand the connotative and denotative meanings of new vocabulary
• Understand and apply writing conventions for subject/verb agreement
Lesson 4: Poems of Darkness: Poe (two-day lesson)

Objectives:
- Understand the use of poetic devices such as assonance, consonance, and repetition
- Analyze how an author uses poetic devices for effect
- Understand the connotative and denotative meanings of new vocabulary
- Understand and apply writing conventions for modifiers that compare

Lesson 5: The Lottery: Jackson (two-day lesson)

Objectives:
- Understand the characteristics of archetypes and stock characters
- Analyze the use of archetypes and stock characters in a short story
- Understand the connotative and denotative meanings of new vocabulary
- Understand and apply writing conventions for modifiers that compare

Lesson 6: The Dark Side: Unit Review

Objectives:
- Review characteristics of the literary genres of suspense and horror
- Review literary devices used for effect in fiction and poetry
- Review writing conventions for subject-verb agreement and modifiers that compare

Lesson 7: The Dark Side: Unit Test

Unit 5: Semester Exam

In this unit, you will have the opportunity to prepare for and take the final exam for the concepts you learned throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Lesson 1: Semester Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords and vocabulary terms, and all important concepts that may be covered on this exam

Lesson 2: Semester Exam
ENGLISH 10 A
**English 10 A**

This is the first of two courses that comprise English 10. In this course, the student will explore the timeless themes of world literature, including works from the Americas, Europe, and Africa. In reading these diverse selections, the student will gain a thorough understanding of fiction genres, including classics, contemporary fiction, poetry, and drama. The student will also read Mark Twain’s *Adventures of Huckleberry Finn*. John Steinbeck’s novella *Of Mice and Men* may be read instead of *Adventures of Huckleberry Finn*. In reading these American literature selections and creating a multimedia presentation, the student will understand longer works of literature in their historical and literary context. Writing instruction guides the student through the process of composing expository and analytical essays. It also provides opportunities for the student to write creatively; the student will compose a short story and poem.

Throughout the course, the student expands his vocabulary in context. The mastery of both critical vocabulary and grammar skills helps the student become a more thoughtful and effective reader and writer.

**Unit 1: The Literature of the Americas**

In this unit, you will not only read a selection of literary works from the Western hemisphere, but you will also analyze literary concepts such as theme, tone, mood, and dramatic irony. You will explore fictional stories, drama, and poetry as well as nonfiction essays and famous United States historical documents. During your study of grammar, you will review the eight parts of speech and apply your knowledge of those as you compose summaries, multi-paragraph essays and an informal letter. You will use a wide variety of study skills to master the concepts covered in this unit.

Objectives:
- Create writing samples that demonstrate understanding of various literary works
- Apply different study skills to master variety of skills and activities
- Analyze fiction and nonfiction literary works
- Review and apply knowledge of different parts of speech

**Lesson 1: Course Introduction**

Objectives:
- Recognize the connection between archetypes and themes in literature
- Differentiate between paraphrasing and summarizing
- Identify the main idea in a nonfiction literary work
- Identify various parts of speech
- Use academic vocabulary to identify literary concepts

**Lesson 2: Aztec Creation Story**

Objectives:
- Analyze characters in a myth
- Name the elements of a creation story
- Identify and use nouns correctly

**Lesson 3: Emancipation**

Objectives:
- Analyze historically significant documents
- Determine the author’s/speaker’s purpose for writing/speaking
- Compare themes in literature
- Identify and use pronouns correctly

**Lesson 4: At The Tourist Center in Boston**

Objectives:
- Examine how diction affects tone
- Identify tone in a poetic work
- Identify and use verbs correctly

**Lesson 5: Day of the Butterfly**

Objectives:
Lesson 6: No Dogs Bark

Objectives:
• Analyze symbolism in a short story
• Compare themes across texts
• Examine images that contribute to mood
• Identify and use adverbs

Lesson 7: Crossroads: A Sad Vaudeville (two-day lesson)

Objectives:
• Analyze characters in a dramatic work
• Identify and explain dramatic irony in a play
• Identify prepositions, conjunctions, and interjections in writing

Lesson 8: The Literature of the Americas Unit Review

Objectives:
• Review concepts and skills from previous lessons to prepare for a test

Lesson 9: The Literature of the Americas Unit Test

Objectives:
• Demonstrate mastery of skills and comprehension of material taught

Unit 2: The Literature of the Americas II

In Unit 1, you read selections from several writers in the Americas. You learned about literary techniques such as tone, theme, imagery, and stage direction. In Unit 2, you will continue reading short stories and poems written by authors from the Americas.

Selections in this unit include writings by authors from St. Lucia, Trinidad and Tobago, Jamaica, Puerto Rico, Brazil, Argentina, and Chile. The stories cover topics such as reconciliation, death, acceptance, anger, and relationships. There is a wealth of insight and emotion in the writings. As you read, you will learn new literary elements such as paradox, personification, and situational irony. You will also become familiar with additional techniques such as magical realism and repetition, which enable literature to engage an audience from beginning to end.

In this unit, you will write a compare and contrast essay on a topic of your choice. You will select a topic, create a rough draft, revise, and edit your essay over the course of the unit. Additionally, you will review and apply your knowledge on the components of sentences and common sentence errors.

Objectives:
• Create a compare and contrast essay
• Apply different study skills to master variety of skills and activities
• Analyze fiction and non-fiction
• Identify parts of a sentence and common sentence errors

Lesson 1: Love after Love

Objectives:
• Identify a paradox and analyze its meaning in a literary work
• Identify common sentence errors
• Identify components of a sentence

Lesson 2: When Greek Meets Greek

Objectives:
• Identify how dialogue reveals information about a character
• Define idioms, colloquialisms, slang, and jargon
• Identify and use simple and complete subjects correctly

Lesson 3: Girls Can We Educate We Dads? and In Trying Times

Objectives:
Lesson 4: The Youngest Doll

Objectives:
• Identify the elements of magic realism in a literary work
• Determine the central idea of a literary work
• Compare cultural experiences reflected in works of literature from outside the United States
• Identify and use compound subjects and verbs correctly

Lesson 5: Writing Workshop: Compare-and-Contrast Essay (two-day lesson)

Objectives:
• Write a compare and contrast essay

Lesson 6: The Third Bank of the River

Objectives:
• Analyze how an author develops complex characters in a literary work
• Examine and interpret the use of symbolism in a literary work
• Make generalizations from a literary work
• Identify and revise sentence fragments

Lesson 7: The Book of Sand

Objectives:
• Identify the elements that contribute to a literary work's mood
• Revise an essay for varied sentence length
• Identify and use direct and indirect objects correctly

Lesson 8: The Censors

Objectives:
• Analyze irony in a literary work
• Examine how characters' actions serve to advance the plot
• Identify and use predicate nominatives and predicate adjectives correctly

Lesson 9: Tonight I Can Write and Serenity

Objectives:
• Identify personification in a literary work
• Analyze tone in a literary work
• Use inference to determine poetic meaning
• Correctly identify sentence patterns

Lesson 10: And of Clay Are We Created

Objectives:
• Analyze tone in a literary work
• Examine how an author develops a character

Lesson 11: The Literature of the Americas II Review (two-day lesson)

Objectives:
• Implement review strategies to prepare for a test

Lesson 12: The Literature of the Americas II Test

Objectives:
• Demonstrate mastery of skills and comprehension of material learned

Lesson 13: Writing Workshop: Compare and Contrast Essay (two-day lesson)
Unit 3: Adventures of Huckleberry Finn

Mark Twain's *Adventures of Huckleberry Finn* is the story of a free-thinking kid, Huck Finn, and a slave named Jim, both of whom choose to flee their oppressive lives. The two set out on a trip down the Mississippi River that is filled with adventures and experiences that are unique to the particular class of characters and setting of the mid-nineteenth century. The novel’s title is sometimes extended to include *Tom Sawyer’s Comrade* to indicate to readers that this is a companion novel to *The Adventures of Tom Sawyer*, told as a first-person narrative from Huck’s point of view. Prior knowledge of *Tom Sawyer* is not required. In this unit, you will identify literary elements, analyze characters, use comprehension strategies to make connections and draw conclusions, and define unfamiliar vocabulary words. You will also create a multimedia presentation for Unit 3’s portfolio assessment.

*Of Mice and Men* may be read instead of the *Adventures of Huckleberry Finn* with prior teacher approval. Lessons and activities for *Of Mice and Men* will appear on the lower half of the page. Do not proceed with *Of Mice and Men* unless you have received approval from your teacher.

*Of Mice and Men* is the story of two men, George Milton and Lennie Small, living a hardscrabble existence as migrant workers during the Great Depression. Smart and practical, George has spent years looking after Lennie. Lennie is hardworking and kind, but feeble-minded. Each man is the only "family" the other one has. As George and Lennie move from place to place and job to job, they hope to save enough money to buy a place of their own. Soon their dream seems within reach, but forces beyond their control threaten to ruin their hopes forever. In this unit, you will identify literary elements, analyze characters, use comprehension strategies to make connections and draw conclusions, and define unfamiliar vocabulary words. You will also create a multimedia presentation for Unit 3's portfolio assessment.

Objectives:
- Develop and apply effective comprehension strategies
- Analyze relationships among characters, setting, and events
- Define new vocabulary and identify words in context

**Lesson 1: Adventures of Huckleberry Finn: Lesson 1**

Objectives:
- Describe Samuel Clemens's background and how it affected his writing
- Define vocabulary words
- Identify point of view in the novel

**Lesson 2: Adventures of Huckleberry Finn: Lesson 2**

Objectives:
- Apply the definitions of Regionalism, Realism, and Naturalism to the novel
- Define vocabulary words
- Analyze the use of dialect in the novel

**Lesson 3: Adventures of Huckleberry Finn: Lesson 3**

Objectives:
- Analyze illustrations of Jim from the novel
- Define vocabulary words
- Generate ideas for multimedia project

**Lesson 4: Adventures of Huckleberry Finn: Lesson 4 (two-day lesson)**

Objectives:
- Describe the requirements of the multimedia project
- Compose a rough draft of the multimedia project
Objectives:
- Define satire
- Identify use of satirical techniques in the novel
- Define vocabulary words
- Analyze illustrations of Jim from the novel

Lesson 6: Adventures of Huckleberry Finn: Lesson 6

Objectives:
- Evaluate the significance of Huck’s moral crisis
- Define vocabulary words
- Identify the use of metaphors in the novel

Lesson 7: Adventures of Huckleberry Finn: Lesson 7

Objectives:
- Analyze the attitudes on race prevalent when the novel was published
- Define vocabulary words
- Debate whether challenges to the novel are valid

Lesson 8: Adventures of Huckleberry Finn: Lesson 8 (two-day lesson)

Objectives:
- Identify themes in the novel
- Analyze social commentary in the novel
- Define vocabulary words
- Compose the final draft of the multimedia project

Unit 4: Europe

Europe has endured many conflicts that have influenced its literature—world wars, the Holocaust, and the collapse of the Soviet Union are examples. Writers are among the first targets of totalitarian regimes. Aleksandr Solzhenitsyn, who was twice sent to Siberia, is one of many European authors who were exiled, imprisoned, or silenced. However, he refused to stop criticizing Russia’s Communist regime, believing that “literature that is not the breath of contemporary society, that dares not transmit the pains and fears of that society, that does not warn in time against threatening moral and social dangers—such literature does not deserve the name of literature; it is only a façade. Such literature loses the confidence of its own people, and its published works are used as wastepaper instead of being read.”

In this unit, you will read, analyze, and interpret selections that express some of the hopes, disappointments, and fears of the writers and of the citizens of the European states, including W.H. Auden and Graham Greene. You will continue to develop your writing skills as you compose an expository essay.

Selections include writings such as the following:
- “from Ten Songs”, a poem by W. H. Auden, which looks at his perceptions of what was happening in Germany during the time of Hitler
- “The Destructors,” a story by Graham Greene, which offers an English man’s perspective on the effects of World War II

As you read, you will learn new literary terms, such as rhyme scheme and allusion. You will be introduced to different character types, such as round characters, flat characters, and stock characters. You will also write an expository essay—and another type of writing that you can add to your growing portfolio. Additionally, you will review and apply your knowledge of a variety of grammatical phrases, such as prepositional, appositive, participial, gerund, and infinitive.

Objectives:
- Compose an expository essay
- Apply different study skills to master variety of skills and activities
- Analyze fiction and non-fiction
- Identify grammatical phrases

Lesson 1: The Divine Comedy

Objectives:
• Identify the rhyme scheme in a poem
• Analyze the effect of rhyme scheme on a poem's meaning
• Use inference to determine poetic meaning
• Identify and use phrases correctly

**Lesson 2: First Confession**

Objectives:
• Identify and examine the types of literary characters in a work of fiction
• Determine how language choices help to evoke a sense of time and place
• Analyze the use of humor in a work of fiction
• Identify and use prepositional phrases correctly

**Lesson 3: Poems on Life and Death**

Objectives:
• Identify the differences between the sonnet and villanelle poetic forms
• Analyze voice in a poetic work
• Organize an expository essay
• Identify and use appositives and appositive phrases correctly

**Lesson 4: Writing Workshop (two-day lesson)**

Objectives:
• Write a rough draft of an expository essay

**Lesson 5: The Love Song of J. Alfred Prufrock**

Objectives:
• Identify and interpret allusions in a poetic work
• Analyze sensory details and images in poetry
• Review an essay for unity and coherence
• Identify and use verbals and verbal phrases correctly

**Lesson 6: The Destructors Part 1**

Objectives:
• Demonstrate understanding of characters and plot events in a narrative
• Analyze how an author's language choices evoke a sense of time and place
• Identify and use gerund and gerund phrases correctly

**Lesson 7: The Destructors Part 2**

Objectives:
• Analyze the elements that contribute to an author's style
• Analyze the interaction between and among characters in a narrative
• Use context clues to determine the meaning of words
• Identify and use infinitives and infinitive phrases correctly

**Lesson 8: The Guitar and Poor Fish**

Objectives:
• Identify and analyze the themes of a literary work
• Use inference to analyze meaning in a narrative
• Identify and explain external and internal conflict in a narrative
• Identify misplaced modifiers, dangling modifiers, and phrase fragments

**Lesson 9: Unit Review**

Objectives:
• Implement review strategies to prepare for a test

**Lesson 10: Europe 1 Unit Test**

Objectives:
• Demonstrate mastery of skills and comprehension of material studied

**Lesson 11: Writing Workshop Expository Essay (two-day lesson)**
Unit 5: Europe II

In this unit, you will continue to read selections that express some of the hopes, disappointments, and fears of the writers and of the citizens of the European states. Selections you will read include a fable, short stories, one short story adapted from a play, and poetry from European writers.

As you read, you will learn literary devices used to create compelling stories or poems such as: allegory, author’s purpose, character development, dialogue, and hyperbole. You will also practice using various clauses and different kinds of sentence structures to enhance your writing. Additionally, you will create a personal narrative about a subject of your choice and have the opportunity to draft a couple of different business communications in the form of a letter of complaint and a letter of application.

Objectives:
- Compose a personal narrative
- Compose various business communications
- Apply different study skills to master a variety of concepts
- Analyze fiction and non-fiction
- Identify clauses and kinds of sentence structures

Lesson 1: The Black Sheep; The Balek Scales

Objectives:
- Analyze point of view in a short story
- Analyze an author’s use of satire in a short story
- Identify and explain the elements of allegory
- Examine the literary elements that contribute to theme
- Use context to determine the meaning of unknown words

Lesson 2: The Last Judgment: Capek

Objectives:
- Analyze the use of dialogue in character development
- Demonstrate comprehension of narrative text
- Identify subordinate clauses correctly

Lesson 3: A Contribution to Statistics; And Yet the Books

Objectives:
- Interpret an author’s purpose and message
- Identify relevant details that contribute to an author’s purpose and message
- Identify adverbial clauses and subordinating conjunctions correctly

Lesson 4: Writing Workshop: Personal Narrative (two-day lesson)

Objectives:
- Write a rough draft of your personal narrative

Lesson 5: The Rhinoceros: Part 1

Objectives:
- Demonstrate comprehension of a narrative text
- Analyze an author’s use of a motif in narrative text
- Identify adjectival clauses and the function of a relative pronoun

Lesson 6: The Rhinoceros: Part 2

Objectives:
- Examine how historical background contributes to a literary work
- Identify examples of Theater of the Absurd
- Identify misplaced modifiers and noun clauses

Lesson 7: Alone; The Nobel Prize; First Frost

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Objectives:
- Identify and analyze imagery that supports a theme
- Identify various kinds of sentence structures
- Demonstrate understanding of the structural elements of poetic texts

Lesson 8: Forbidden Fruit

Objectives:
- Analyze an author’s use of hyperbole in a narrative text
- Identify and examine ideas that support the development of the theme in a narrative text
- Identify clause fragments and run-on sentences

Lesson 9: Europe II Review

Objectives:
- Implement review strategies to prepare for the unit test

Lesson 10: Europe II Unit Test

Objectives:
- Demonstrate mastery of skills and comprehension of material studied

Lesson 11: Writing Workshop Personal Narrative (two-day lesson)

Objectives:
- Edit an essay to produce a final draft
- Publish a final draft

Unit 6: Africa

The African continent includes more than 50 countries and more than 800 languages. The writers you will study in this unit, who come from various regions of Africa, faced the challenge of telling their stories in languages that honor their heritage while reaching a wide audience. Most authors write in French and English, the languages spoken by European colonizers. But one, Kenyan author Ngugi wa Thiong’o, writes primarily in his native language, Gikuyu.

You will read stories that reflect the authors’ analyses of life before and after colonization. They deal with subjects such as the griot storytelling tradition, the clash of European and African cultures, and the pervasive effects of apartheid. Selections you will read include an epic poem, a first-person narrative, and several short stories.

As you read, you will learn about literary devices that writers use to create interesting stories and poems. These devices include personification, plot, tone, characterization, humor, theme, and setting. You will also practice using various verb forms and learn how to strengthen your writing through the use of vivid verbs. Additionally, you will learn elements of poetry such as sound devices, rhythm, meter, and figurative language; you will also explore various forms that poems can take. Finally, you will use the information you learned about poetry to create a poem.

Objectives:
- Compose a poem
- Apply different study skills to master a variety of skills and activities
- Analyze fiction and nonfiction
- Identify and use verb forms correctly

Lesson 1: Sunjata Part 1 (two-day lesson)

Objectives:
- Identify characteristics of an epic poem
- Analyze the elements of a narrative in an epic poem
- Demonstrate understanding of events in an epic poem

Lesson 2: Sunjata Part 2 and Africa

Objectives:
- Demonstrate understanding of plot events in an epic poem
- Analyze the elements of an epic poem
- Identify and analyze examples of personification in a poem

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Lesson 3: Black Girl Part 1

Objectives:
- Analyze the effect of setting on narrative elements
- Analyze the effect of an author's manipulation of time in a narrative text
- Identify and use the principal parts of verbs correctly

Lesson 4: Black Girl Part 2

Objectives:
- Demonstrate understanding of the interaction of narrative elements in a literary work
- Identify and use problem verbs correctly

Lesson 5: Three Pieces: Senghor, Soyinka, Achebe

Objectives:
- Analyze diction and the use of figurative language in text
- Draw conclusions using textual support
- Identify and use various verb tenses correctly

Lesson 6: Writing Workshop: Poem (two-day lesson)

Objectives:
- Compose a draft of a poem

Lesson 7: In the Shadow of War

Objectives:
- Identify and analyze the plot of a short story
- Analyze how the plot and characters of a short story reflect an author's perspective
- Identify and use progressive and emphatic verb forms correctly

Lesson 8: Loyalties and A Meeting in the Dark Part 1

Objectives:
- Identify and analyze different types of humor in narrative text
- Use context clues to determine the meaning of unknown words/phrases
- Identify and correct unnecessary shifts in verb tense

Lesson 9: A Meeting in the Dark Part 2

Objectives:
- Identify and analyze how the characters and plot serve to advance the theme of a work of fiction
- Identify active and passive voice correctly

Lesson 10: The Pig

Objectives:
- Analyze diction that contributes to tone in a literary work
- Identify and use verb forms correctly

Lesson 11: No Witchcraft for Sale

Objectives:
- Determine the most important ideas to include in a summary of a narrative text
- Use context to determine understanding of unknown words or phrases

Lesson 12: The Moment Before the Gun Went Off

Objectives:
- Analyze the use of irony in a short story
- Apply knowledge of strong verbs
- Use context to determine the meaning of unknown words and phrases
Lesson 13: The Prisoner Who Wore Glasses

Objectives:
- Analyze character development in a narrative text

Lesson 14: The Literature of Africa Unit Review (two-day lesson)

Objectives:
- Implement review strategies to prepare for a test

Lesson 15: The Literature of Africa Unit Test

Objectives:
- Demonstrate mastery of skills and comprehension of material studied

Lesson 16: Writing Workshop: Poem (two-day lesson)

Objectives:
- Compose a final version of a poem

Unit 7: Semester Review and Exam

In this unit, you will have the opportunity to prepare for and take the final exam on the concepts you learned throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Lesson 1: English 10 A Semester Review (two-day lesson)

Objectives:
- Review major concepts and strategies from the English 10 A course in preparation for the semester exam

Lesson 2: English 10 A Semester Exam
ENGLISH 10 B
English 10 B

This is the second of two courses that comprise English 10. In this course, the student will continue to explore the timeless themes of world literature, including works from Europe, the Middle East, Asia, and the Pacific Rim. In reading these diverse selections, the student will gain a thorough understanding of fiction genres, including classics, contemporary fiction, poetry, and drama. The student will also read Oscar Wilde’s play *The Importance of Being Earnest*. George Bernard Shaw’s play *Pygmalion* may be read instead of *The Importance of Being Earnest*. In reading these British plays and composing a dramatic scene, the student will understand drama in its historical and literary context.

Writing instruction guides the student through the process of composing a descriptive portrait, a research paper, and a persuasive speech. Throughout the course, the student expands his vocabulary in context. The mastery of both critical vocabulary and grammar skills helps the student become a more thoughtful and effective reader and writer.

**Unit 1: Nonfiction: Persuasion**

In this unit, you will explore persuasive techniques used in nonfiction writing and create your own nonfiction persuasive speech. You’ll work on using persuasive techniques to develop arguments and learn how to speak in a public forum. Your grammar focus will be capitalization, end marks, and commas.

Objectives:
- Use the writing process to prepare and give a persuasive speech
- Use end marks and commas correctly
- Analyze persuasive techniques
- Compare a subject in two mediums
- Analyze word choice and theme in nonfiction works

**Lesson 1: Prewriting: Persuasive Writing**

Objectives:
- Distinguish between fact and opinion
- Analyze the elements of persuasive writing
- Demonstrate knowledge of capitalization

**Lesson 2: Preparation: Choose a Topic and Develop a Thesis**

Objectives:
- Identify the elements of an effective thesis statement
- Demonstrate understanding of counterarguments in persuasive writing
- Demonstrate knowledge of capitalization

**Lesson 3: Preparation: Develop Arguments**

Objectives:
- Identify and differentiate between the persuasive appeals: ethos, pathos, and logos
- Develop arguments in a persuasive speech using persuasive appeals

**Lesson 4: Writing Workshop: Persuasive Speech: Outline (two-day lesson)**

Objectives:
- Compose the draft of a persuasive speech based on reasoned arguments

**Lesson 5: Revising Your Speech (two-day lesson)**

Objectives:
- Revise a persuasive speech by checking for logical fallacies
- Compare and contrast two speeches to determine a speaker's purpose

**Lesson 6: Public Speaking**

Objectives:
- Identify organizational strategies to prepare ideas when presenting a speech
Lesson 7: Presentation

Objectives:
- Demonstrate understanding of the technical aspects of preparing for and presenting a speech
- Analyze diction and persuasive techniques in a variety of informational texts
- Demonstrate knowledge of comma usage in introductory elements

Lesson 8: Critical Listening Skills

Objectives:
- Determine critical listening skills for a variety of purposes and/or situations
- Identify the appropriate skills necessary for participating in a group discussion
- Identify and practice the correct usage of commas that enclose

Lesson 9: Nonfiction: Persuasion Unit Review

Objectives:
- Apply study skills to prepare for a test

Lesson 10: Nonfiction: Persuasion Unit Test

Lesson 11: Writing Workshop: Persuasive Speech Final (two-day lesson)

Objectives:
- Analyze elements of a speech using specified criteria in a rubric
- Evaluate and incorporate feedback to edit a speech
- Prepare an audio recording of a persuasive speech

Unit 2: Middle East and South Asia I

The literature of the Middle East and South Asia—including Algeria, Armenia, Egypt, India, Iraq, Israel, Palestine, Syria, and Turkey—provides rich insight into a culture marked by diverse traditions, religions, and languages, as well as a long history of conflicts. Today the region grapples with both ancient and modern ways of life as people balance preserving tradition with adopting new attitudes and customs influenced by Western culture.

In this unit, you will read literature that investigates the values, perspectives, and everyday experiences of people in the Middle East and South Asia. You will explore traditional and contemporary cultural attitudes about family roles, marriage, gender, and religious devotion, as well as the conflicts that arise as people navigate old and new ways of doing things. As you read and analyze the short stories and poems in this unit, you will consider the cultural contexts of the texts and identify and analyze symbolism, humor, and sensory details. After learning about descriptive writing, you will write a descriptive portrait. Throughout the unit, you will continue to develop and practice strategies for understanding vocabulary. Grammar will focus on using pronouns correctly.

Objectives:
- Apply knowledge of description
- Practice vocabulary-building strategies
- Analyze literary elements
- Use pronouns correctly
- Read literature from the Middle East and South Asia

Lesson 1: Introduction to Indian Literature

Objectives:
- Clarify knowledge about India, its geography, culture and people, and Indian literature

Lesson 2: India: The Ramayana
Objectives:
- Analyze elements of descriptive writing
- Analyze how an author develops a character
- Identify and use the nominative case of personal pronouns

Lesson 3: Algeria: "My Father Writes to My Mother"

Objectives:
- Analyze the influence of setting on narrative elements
- Identify and use the objective case of personal pronouns

Lesson 4: Egypt: "Another Evening at the Club"

Objectives:
- Interpret imagery and symbolism in a literary work
- Identify and use the possessive case correctly
- Correctly apply the word "who" in various situations

Lesson 5: Writing Workshop: Descriptive Portrait (two-day lesson)

Objectives:
- Apply knowledge of descriptive writing

Lesson 6: Egypt: "The Happy Man"

Objectives:
- Analyze how an author uses dark humor to convey thematic ideas
- Identify and correctly use pronouns in elliptical clauses and appositives

Lesson 7: Israeli and Palestinian Literature

Objectives:
- Analyze the use of cultural symbols in a poem
- Interpret the meaning of a poem
- Identify and practice the correct use of pronouns and antecedents

Lesson 8: "The Swimming Contest"

Objectives:
- Use context clues to discover word meanings
- Explain the use of foreshadowing in a literary work
- Identify unclear, missing, or confusing antecedents

Lesson 9: Syria: "The Women’s Baths"

Objectives:
- Use word parts to interpret new vocabulary
- Identify and analyze sensory details in a literary work
- Apply knowledge of pronoun use

Lesson 10: Middle East and South Asia I Unit Review

Objectives:
- Implement review strategies to prepare for a test

Lesson 11: Middle East and South Asia I Unit Test

Lesson 12: Writing Workshop (two-day lesson)

Objectives:
- Edit and publish a descriptive portrait

Unit 3: Middle East and South Asia II

In this unit, you’ll continue your study of the literature of the Middle East and South Asia and continue to make comparisons between cultures while you come to appreciate the similarities among all people. You’ll also receive a quick primer on online communications and Internet safety. Grammar instruction will focus on subject and verb agreement in a number of different cases. Finally, you’ll work on a research proposal to submit to your portfolio.
Objectives:
- Construct a research proposal
- Practice vocabulary-building strategies
- Identify and use subject-verb agreement correctly
- Analyze literary elements
- Read literature from the Middle East and South Asia

Lesson 1: "Wanted: A Town Without a Crazy": Izgu

Objectives:
- Identify and explain the purpose of exaggeration in a literary work
- Identify and practice the correct use of subject and verb agreement

Lesson 2: Literature of Armenia and Iraq (two-day lesson)

Objectives:
- Develop and prepare a research proposal investigating a cultural aspect related to a country of literary study
- Participate effectively in an online discussion by posting and responding to questions related to the research proposal

Lesson 3: "Five Hours to Simla" (two-day lesson)

Objectives:
- Examine techniques used to create mood in a literary work
- Identify and practice the correct use of subject and verb agreement

Lesson 4: "The Cabuliwallah" (two-day lesson)

Objectives:
- Locate, evaluate, and document sources related to a topic of research
- Draft and submit a research proposal, including a topic, questions, and multiple sources

Lesson 5: Narayan and Ondaatje

Objectives:
- Identify details that support the main idea in a literary work
- Analyze and infer meaning within and across texts
- Use context clues to determine the meaning of unknown words or phrases
- Demonstrate understanding of subject and verb agreement

Lesson 6: Online Communications (two-day lesson)

Objectives:
- Identify the rules for safe and appropriate online communications
- Recognize and demonstrate understanding of plagiarism
- Identify and practice the correct use of subject and verb agreement

Lesson 7: Middle East and South Asia II Unit Review

Objectives:
- Prepare for a test

Lesson 8: Middle East and South Asia II Unit Test

Objectives:
- Demonstrate mastery of skills and comprehension of material learned

Lesson 9: Writing Workshop: Research Proposal: Final Draft (two-day lesson)

Objectives:
- Write annotations to each source
- Edit a research proposal for a final draft copy

Unit 4: East Asia and the Pacific Rim
In this unit, you will study literature from East Asia and the Pacific Rim, which includes such countries as Japan, China, Korea, Vietnam, Australia, and New Zealand. As you read, you will learn that the main theme of the literature from this region of the world is the region’s relationship with the West. During this unit, you will compose a literary analysis that explores an author’s purpose in a piece of literature of your choice. Finally, you’ll study the use of italics, quotation marks, hyphens, and semicolons for your grammar review.

Objectives:
- Use the writing process to write a literary analysis
- Support a literary analysis with textual evidence
- Analyze literary elements
- Use quotations, italics, semi-colons, colons, dashes, brackets, and ellipses correctly

Lesson 1: The Three Kingdoms: Guanzhong

Objectives:
- Identify literary works for close analysis
- Review the structure of literary analysis in order to prepare for a book discussion
- Participate effectively in an online collaborative discussion

Lesson 2: From Emperor to Citizen: P’u Yi

Objectives:
- Analyze diction to determine the author’s tone in literary non-fiction
- Draw inferences based on information and ideas provided in the text
- Correctly use italics and quotation marks
- Use context clues to determine the meaning of unknown words

Lesson 3: The Tall Woman and Her Short Husband: Jicai

Objectives:
- Analyze the interaction between characters in a literary work
- Demonstrate understanding of characters and plot events in a narrative
- Use quotation marks correctly

Lesson 4: Saboteur: Jin

Objectives:
- Identify and analyze examples of foreshadowing in literary text
- Demonstrate understanding of plot events in a narrative
- Use quotation marks correctly

Lesson 5: Cranes: Sun-won

Objectives:
- Examine an author’s use of flashbacks and foreshadowing in a literary work
- Demonstrate understanding of plot events in a narrative
- Demonstrate knowledge of other punctuation marks
- Use context clues to determine the meaning of unknown words

Lesson 6: Thoughts of Hanoi: Thi Vinh

Objectives:
- Analyze the importance of setting in a literary work and its contribution to mood
- Evaluate an author’s perspective and tone as communicated through literary text
- Demonstrate correct use of apostrophes

Lesson 7: Writing Workshop: Literary Analysis Rough Draft (two-day lesson)

Objectives:
- Compose an essay of literary analysis

Lesson 8: Tokyo: Hayashi
Unit 5: The Importance of Being Earnest

In this unit, you will read and analyze the *The Importance of Being Earnest*, a play in which the characters hold the pursuit of pleasure above all other goals. As you read, you will relate the play to the Victorian culture in which the playwright, Oscar Wilde, lived, as well as to the comedies of the Restoration era. You will also analyze characterization, symbolism, and irony in the play.

*The Importance of Being Earnest* is the recommended play for English 10. George Bernard Shaw's play *Pygmalion* may be read instead of *The Importance of Being Earnest* with prior teacher approval. Lessons and activities for *Pygmalion* will appear on the lower half of the page. Do not proceed with *Pygmalion* unless you have received approval from your teacher.

In *Pygmalion*, George Bernard Shaw scrutinizes various layers of English society in a romantic comedy. The play's title alludes to a transformation that the Shaw's characters undergo. Eliza Doolittle, a poor but scrappy flower girl, and Henry Higgins, a professor, wrestle with issues of identity, independence, class, character, and self-respect to create a play that remains relevant almost a century later.

Objectives:
- Read and analyze the play
- Analyze the influence of Victorian culture on the play
- Apply the characteristics of Restoration comedy to the play
- Analyze symbolism and irony in the play

Lesson 1: The Playwright Oscar Wilde

Objectives:
- Identify strategies for reading dramatic dialogue

Lesson 2: Act I, First Half

Objectives:
- Synthesize research on Victorian England
- Define vocabulary words
- Apply the characteristics of Victorian culture to the play

Lesson 3: Act I, Second Half

Objectives:
- Synthesize research on Victorian art and literature
- Define vocabulary words
- Apply the characteristics of Restoration comedy to the play

Lesson 4: Act II, First Half

Objectives:
- Analyze dialogue between characters in the play
- Define vocabulary words
- Describe the conflict in the play

Lesson 5: Act II, Second Half

Objectives:
- Analyze symbolism and irony in the play
- Define vocabulary words

Lesson 6: Act III

Objectives:
- Evaluate Jack’s use of the word absurd to assess what is happening around him
- Define vocabulary words
- Analyze the last line and title of the play

Lesson 7: The Importance of Being Earnest Unit Review

Objectives:
- Prepare for unit test

Lesson 8: The Importance of Being Earnest Unit Test

Unit 6: Semester Exam

In this unit, you will prepare for and take the semester exam. Since this is a comprehensive exam, it will cover the following areas: Middle East and South Asia, East Asia and the Pacific Rim, and the writing processes for research and persuasive writing. Applying the test-taking strategies that you have previously learned can help you be successful with the multiple choice, matching, short answer, and essay questions on the semester exam.

Objectives:
- Prepare for the semester exam
- Assess understanding of literature, grammar, and writing concepts explored in Semester B

Lesson 1: English 10B Semester Review (two-day lesson)

Objectives:
- Prepare for semester exam
- Assess understanding of literature, grammar, and writing concepts explored in Semester B

Lesson 2: English 10B Semester Exam

Unit 7: The Research Paper

In Unit 3, you prepared a research proposal that focused on some cultural aspect of one of the countries (Turkey, Armenia, Iraq, India, or Sri Lanka) that was the focus of that unit.
You limited your topic and researched and evaluated sources. In Unit 4, you will learn the process of creating a research paper based on that proposal. You will cover the steps from prewriting to editing as you work to create a final draft. In addition, you will learn about properly using adverbs and adjectives and begin a review of common usage issues.

Objectives:
- Write a research paper
- Find and research reliable sources to write a research paper
- Follow a style guide to publish a paper
- Use adjectives and adverbs correctly
- Apply rules for correct usage

Lesson 1: Prewriting: Researching and Taking Notes (two-day lesson)

Objectives:
- Identify and evaluate online and print sources to support research
- Summarize research in note form

Lesson 2: Prewriting: Synthesizing Information and Thesis

Objectives:
- Synthesize information for a research paper
- Construct a thesis for a research paper
- Use adjectives and adverbs correctly

Lesson 3: Prewriting: Organizing and Outlining (two-day lesson)

Objectives:
- Organize information for a research paper
- Compose an outline for a research paper
- Use adjectives and adverbs correctly

Lesson 4: Drafting: Refining the Thesis and Introduction (two-day lesson)

Objectives:
- Compose an introduction for a research paper
- Analyze informational text to identify areas for development and refinement of claims and ideas
- Refine the thesis of a research paper
- Use adjectives and adverbs correctly

Lesson 5: Drafting: Body & Conclusion (two-day lesson)

Objectives:
- Compose a draft of the body and conclusion of a research paper

Lesson 6: Revising Strategies: Focus

Objectives:
- Identify the trouble spots within the rough draft of a research paper in order to revise it for focus
- Assess knowledge of usage
- Participate effectively in an online discussion to provide and receive feedback about the rough draft of a research paper

Lesson 7: Revising Strategies: Organization, Support, Voice

Objectives:
- Revise a research paper
- Determine the appropriate transitions to improve writing
- Demonstrate knowledge of usage

Lesson 8: Revising: Following a Style Guide

Objectives:
- Identify and explain the purpose of different style guides
- Use the correct format to cite sources accurately
- Demonstrate knowledge of usage
Lesson 9: Revising: Works Cited Page (two-day lesson)

Objectives:
• Cite research sources using MLA format
• Demonstrate understanding of editorial choices that conform to MLA format

Lesson 10: Editing: Incorporating Feedback

Objectives:
• Incorporate feedback into editing
• Use capitalization rules correctly

Lesson 11: Editing: Polishing and Publishing (two-day lesson)

Objectives:
• Edit writing for grammar, conventions, and final publication
ENGLISH 11 A
English 11 A

This is the first of two courses that comprise English 11. In this course, the student will focus on the literary movements that comprise American literature, and trace the chronology of national literature from the early American and colonial period through the periods of Realism and Regionalism. In reading these diverse selections, the student will gain a thorough understanding of fiction, including short stories, poetry and drama; as well as nonfiction genres, including the oral tradition, seminal historical documents, and speeches. The student will also read Jerome Lawrence and Robert E. Lee’s play The Night Thoreau Spent in Jail. Arthur Miller’s play The Crucible may be read instead of The Night Thoreau Spent in Jail. In reading these American plays and composing a dramatic scene, the student will understand drama in its historical and literary context.

Writing instruction guides the student through the process of composing a descriptive essay and modeling the style of an American author. Throughout the course, the student expands his vocabulary in context. The mastery of both critical vocabulary and grammar skills helps the student become a more thoughtful and effective reader and writer.

Unit 1: Early American and Colonial Literature

In Unit 1, Early American and Colonial Literature, you will examine the concept of a national literature and read different genres that comprise the national literary heritage of the United States. You will read and explore the ideas and writing of the New World’s earliest inhabitants, visitors, and settlers. You will also analyze strategies for persuasive writing as well as the denotative and connotative meanings of vocabulary words in context. Additionally, this unit will give you practice in composing timed writings.

Objectives:
- Read, and analyze, and interpret primary sources from the early American and Colonial period
- Determine the denotative and connotative meanings of vocabulary words in context
- Analyze techniques and strategies for persuasive writing

Lesson 1: American Literature: Our Nation’s Voice (two-day lesson)

Objectives:
- Describe how a national literature develops
- Assess three methods of note taking
- Define vocabulary words using context clues
- Describe the literature of early and colonial America

Lesson 2: Earliest Voices: William Bradford (two-day lesson)

Objectives:
- Describe the concerns and ideas of early American people and writers
- Compare early American English to contemporary American English
- Read, analyze, and interpret excerpts from Of Plymouth Plantation
- Identify evidence of the Puritan legacy in American literature

Lesson 3: Contemporary Voice: Fred Veilleux (two-day lesson)

Objectives:
- Describe persuasive techniques
- Define vocabulary words in order to understand a persuasive argument
- Analyze persuasive arguments in an essay

Lesson 4: Earliest Voices: Anne Bradstreet, Phillis Wheatley (two-day lesson)

Objectives:
- Define poetic elements
- Analyze the poetry of early American women poets
- Determine the best definitions of words with multiple meanings in context

Lesson 5: Earliest Voice: Jonathan Edwards (two-day lesson)

Objectives:
Lesson 6: Earliest Voices: Olaudah Equiano (two-day lesson)

Objectives:
• Differentiate between denotation and connotation
• Define the connotative meaning of vocabulary words
• Read, analyze, and interpret a slave narrative
• Read, analyze, and interpret an autobiographical account of the slave trade

Lesson 7: Earliest Voices: Thomas Paine (two-day lesson)

Objectives:
• Describe how Thomas Paine helped to fuel the American Revolution
• Read and analyze excerpts from Thomas Paine’s Common Sense
• Define the denotative and connotative meanings of vocabulary words
• Read, analyze, and interpret excerpts from Thomas Paine’s Common Sense
• Analyze the audience of a persuasive essay

Lesson 8: Earliest Voices: The Founding Fathers (two-day lesson)

Objectives:
• Analyze the Declaration of Independence
• Compare denotative and connotative meanings of words
• Assess knowledge of early American literature

Lesson 9: Author’s Purpose (two-day lesson)

Objectives:
• Define purposes for writing
• Review authors and compositions from the early American and Colonial period to identify purpose

Lesson 10: Timed Writing Assessments (two-day lesson)

Objectives:
• Identify and assess strategies for timed writing
• Outline a model essay test answer
• Compose a timed writing response

Lesson 11: Early American and Colonial Literature Review (two-day lesson)

Objectives:
• Review unit essential questions
• Practice test-taking strategies
• Create a multimedia presentation

Lesson 12: Early American and Colonial Literature Test

Unit 2: American Romanticism

In Unit 2, American Romanticism (1820s–1850s), you will read and analyze the short stories of Nathaniel Hawthorne and Edgar Allan Poe as well as the poetry of Walt Whitman. You will also study the subgenre of Transcendentalism. Henry David Thoreau’s “Walden” will model the descriptive writing you will compose for your first portfolio assessment.

Objectives:
• Read, analyze, and interpret American Romantic short stories and poetry
• Assess the denotative and connotative meanings of vocabulary words in context
• Compose a descriptive essay
• Review types of nouns in order to identify and evaluate appositive phrases

Lesson 1: American Romanticism (two-day lesson)
Objectives:
• Define genre and subgenre
• Identify the characteristics of American Romanticism
• Name American Romantic authors
• Correctly capitalize words in sentences

Lesson 2: Nathaniel Hawthorne (two-day lesson)
Objectives:
• Read and analyze an American Romantic short story
• Evaluate the role setting plays in literature
• Paraphrase a variety of texts
• Define and determine the connotations of vocabulary words

Lesson 3: Contemporary Literary Criticism (two-day lesson)
Objectives:
• Read and analyze literary criticism
• Interpret symbolism and imagery in "Young Goodman Brown"
• Review eight parts of speech and types of nouns

Lesson 4: Edgar Allan Poe (two-day lesson)
Objectives:
• Read and analyze Poe's letters and short stories
• Describe how setting contributes to Poe's intended effect
• Evaluate Poe's writing using his own criteria
• Define and determine the connotations of vocabulary words

Lesson 5: Ralph Waldo Emerson (two-day lesson)

Lesson 6: Henry David Thoreau (two-day lesson)
Objectives:
• Examine Transcendentalist views of God and nature
• Analyze Henry David Thoreau's descriptive writing style
• Identify pronouns and their antecedents
• Select a topic and audience for a descriptive essay
• Assess knowledge of American Romanticism

Lesson 7: Descriptive Essay: Rough Draft (two-day lesson)
Objectives:
• Practice strategies for developing a description
• Compose and submit a descriptive essay rough draft
• Match appositives to the nouns they modify
• Evaluate denotative and connotative meanings in descriptive writing

Lesson 8: Walt Whitman (two-day lesson)
Objectives:
• Analyze images and poetry of Walt Whitman
• Compare and contrast Romantic and Early American and Colonial poetry
• Analyze literary criticism of Walt Whitman’s poetry

Lesson 9: American Romanticism Review (two-day lesson)
Objectives:
• Prepare for the unit test
• Apply strategies for answering reading comprehension questions

Lesson 10: American Romanticism Test

Lesson 11: Descriptive Essay: Final Draft (two-day lesson)
Objectives:
• Review comments on descriptive writing rough draft
• Revise, edit, and submit descriptive essay
• Identify commonly confused homophones
Unit 3: The Night Thoreau Spent in Jail

In Unit 3, you will read and analyze an American drama. The Night Thoreau Spent in Jail is a play in two acts written in 1970 by Jerome Lawrence and Robert E. Lee. The play is comprised of shifting scenes from the real and imagined life of American writer and philosopher Henry David Thoreau (1817–1862). Arrested on July 23, 1846 for failure to pay his taxes, Henry David Thoreau spent one night in jail. The play dramatizes that night, intercutting scenes in which Henry interacts with his cellmate with flashbacks to events from the years leading up to the date of his arrest.

For the second portfolio assessment, you will compose a dramatic scene. The Night Thoreau Spent in Jail is the recommended play for English 11. Arthur Miller’s play The Crucible may be read instead of The Night Thoreau Spent in Jail with prior teacher approval. Lessons and activities for The Crucible will appear on the lower half of the lesson pages. Do not proceed with The Crucible unless you have received prior approval from your teacher.

Objectives:
• Read, analyze, and interpret an American drama
• Define vocabulary words in context
• Visualize stage directions
• Compose a dramatic scene

Lesson 1: Obedience Versus Nonconformity (two-day lesson)
Objectives:
• Explain Henry David Thoreau’s willingness to be jailed
• Define vocabulary words
• Assess Henry’s approach to and philosophy of teaching
• Analyze the setting and structure of the play

Lesson 2: Transcendentalism: Progress or Threat? (two-day lesson)
Objectives:
• Describe how the play illustrates the philosophy of transcendentalism
• Identify the central conflict of the play
• Define vocabulary words
• Evaluate the use of stage directions in the play

Lesson 3: Opposing the War (two-day lesson)
Objectives:
• Evaluate arguments for and against the Mexican American War to determine whether it was justified
• Define vocabulary words
• Generate ideas for a dramatic scene

Lesson 4: Crafting a Scene (two-day lesson)
Objectives:
• Describe elements of drama, including plot, characters, communication, and dramatic conventions
• Compose the rough draft of a scene

Lesson 5: A Solitary Man (two-day lesson)
Objectives:
• Analyze the use of figures of speech in the play
• Define vocabulary words
• Evaluate how Henry’s commitment to transcendentalism affects his human connections

Lesson 6: Doing the Impossible (two-day lesson)
Objectives:
• Compare and contrast protest in the play with protest during the Vietnam War
• Define vocabulary words
Lesson 7: One of the Crowd (two-day lesson)

Objectives:
- Analyze Henry’s non-conformist attitude in relation to theme
- Define vocabulary words
- Describe the significance of the “unseen Congressman”
- Analyze the play’s arguments about transcendentalism

Lesson 8: The Play’s the Thing (two-day lesson)

Objectives:
- Evaluate the use of dialogue in the dramatic scene
- Propose staging for the play that serves its themes
- Incorporate meaningful stage directions into the dramatic scene
- Revise the dramatic scene

Unit 4: Realism and Regionalism

In Unit 4, Realism and Regionalism (1860–1914), you will read, analyze, and interpret the short stories of American Realist and Regionalist authors, as well as the poetry of Emily Dickinson. As you examine this literature, you will consider dialect, flashback, characterization, figurative language, and other devices used by Realist authors. During this unit, you will gain practice correctly using apostrophes and possessive pronouns. For your third portfolio assessment, you will select an American short story from Unit 2 or 4 and compose an alternate ending in the style of the original author.

Objectives:
- Read, analyze, and interpret American Realist and Regionalist short stories and poetry
- Correctly use apostrophes
- Compose an alternate ending in the style of the original author

Lesson 1: Realism (two-day lesson)

Objectives:
- Identify characteristics of realism
- Describe the historical context of Realism
- Correctly use apostrophes to show possession

Lesson 2: Emily Dickinson (two-day lesson)

Objectives:
- Describe the life of Emily Dickinson
- Read, analyze, and interpret Emily Dickinson’s poetry
- Identify proper use of the apostrophe
- Correctly use possessive pronouns

Lesson 3: Sarah Orne Jewett (two-day lesson)

Objectives:
- Define dialect and types of language associated with the use of dialect
- Describe the life and influences of Sarah Orne Jewett
- Read, analyze, and interpret the short story "A White Heron"
- Define vocabulary words to enhance understanding of a short story
- Correctly use apostrophes to convey ownership

Lesson 4: Mark Twain (two-day lesson)

Objectives:
- Define Regionalism
- Read, analyze, and interpret the short story, "The Celebrated Jumping Frog of Calaveras County"
- Define vocabulary words to enhance understanding of a short story
- Correctly use apostrophes to create contractions

Lesson 5: Ambrose Bierce (two-day lesson)

Objectives:
Lesson 6: Kate Chopin (two-day lesson)

Objectives:
- Identify the important elements of a short story
- Generate ideas for an alternate ending to a short story
- Identify characteristics of Kate Chopin’s writing
- Define vocabulary words to enhance understanding of a short story
- Read, analyze, and interpret the short story, “A Pair of Silk Stockings”

Lesson 7: Alternate Ending: Rough Draft (two-day lesson)

Objectives:
- Identify stylistic devices of a Romantic or Realist author
- Compose an alternate ending to a Romantic or Realist story

Lesson 8: Charles Waddell Chesnutt (two-day lesson)

Objectives:
- Read, analyze, and interpret the short story, “The Wife of His Youth”
- Assess the impact complex characters have on a story
- Define vocabulary words to enhance understanding of a short story

Lesson 9: Contemporary Connection: Cedric Yamanaka (two-day lesson)

Objectives:
- Read, analyze, and interpret the short story, “The Lemon Tree Billiards House”
- Define hyperbole, simile, and metaphor

Lesson 10: Realism and Regionalism Review (two-day lesson)

Objectives:
- Prepare for unit test
- Apply strategies for answering standard written English test items

Lesson 11: Realism and Regionalism Unit Test

Lesson 12: Alternate Ending: Final Draft (two-day lesson)

Objectives:
- Compose an alternate ending to a Romantic or Realist story
- Assess the alternate ending using teacher feedback and an evaluation checklist

Unit 5: Semester Review and Exam

In this unit, you will prepare for and take the semester exam. Since this is a comprehensive exam, it will cover the following units: Early American and Colonial Literature, American Romanticism, The Night Thoreau Spent in Jail, Realism and Regionalism. Applying the test-taking strategies that you have previously learned can help you be successful with the multiple choice, matching, short answer, and essay questions on the semester exam.

Objectives:
- Prepare for the semester exam
- Assess your understanding of literature, vocabulary, grammar, and writing in Semester A

Lesson 1: Semester Review (two-day lesson)

Objectives:
- Prepare for semester exam
- Assess understanding of literature, vocabulary, grammar, and writing in Semester A
Lesson 2: Semester Exam
ENGLISH 11 B
English 11 B

This is the second of two courses that comprise English 11. In this course, the student will focus on the literary movements that comprise American literature, and trace the chronology of national literature from the Modernist through the Contemporary period. In reading and responding to these diverse literature selections, the student will gain a thorough understanding of a myriad of fiction and nonfiction genres, including short stories, essays, poetry, drama, memoirs, and biographies. The student will also read F. Scott Fitzgerald’s novel *The Great Gatsby*. Ernest Hemingway’s novella *The Old Man and the Sea* may be read instead of *The Great Gatsby*. In reading these American literature selections, the student will understand longer works of literature in their historical and literary context.

Writing instruction guides the student through the process of composing a literary analysis and a research paper. Throughout the course, the student expands his vocabulary in context. The mastery of both critical vocabulary and grammar skills helps the student become a more thoughtful and effective reader and writer.

Unit 1: Voices of Modernism (1920s–1940s)

In this unit, you will study the modernism movement, which occurred from the 1920s to the 1940s. You will read and analyze the short stories of authors such as John Steinbeck and F. Scott Fitzgerald and the poetry of authors such as Robert Frost. You will also practice identifying and using different types of verb forms and clauses, as well as independent and subordinate clauses. For your portfolio assessment, you will apply your research and writing capabilities to compose a literary analysis showcasing your analytical and synthesizing skills.

Objectives:
- Identify influences of and elements in modernist writing
- Read, analyze, and interpret modernist short stories and poetry
- Compose a literary analysis based on a modernist literary work
- Identify types of verb forms and phrases as well as independent and subordinate clauses

Lesson 1: Introduction to Modernism (two-day lesson)

Objectives:
- Define modernism
- Describe the events and circumstances that influenced modernism
- Describe the unique writing styles of modernist writers
- Identify participles and participial phrases and the words they modify

Lesson 2: Hemingway (two-day lesson)

Objectives:
- Identify the mood and tone of Hemingway’s writing
- Describe the major influences on Hemingway’s writing
- Read, analyze, and interpret the short story “In Another Country”
- Analyze setting and imagery in “In Another Country”
- Correctly punctuate participial phrases

Lesson 3: Steinbeck

Objectives:
- Define symbolism
- Describe how John Steinbeck was influenced by the California town of Pacific Grove
- Define vocabulary words to enhance understanding of John Steinbeck’s writing
- Read, analyze, and interpret the short story, “The Chrysanthemums”
- Correctly identify gerunds and gerund phrases

Lesson 4: Harlem Renaissance

Objectives:
- Practice using effective strategies for reading poetry
- Describe the rise of the Harlem Renaissance
• Read, analyze, and interpret poems of the Harlem Renaissance
• Correctly identify infinitives and infinitive phrases

**Lesson 5: Ellison**

Objectives:
- Define diction and pathos
- Describe the cultural contributions of African American literary and visual artists
- Read, analyze, and interpret the short story, “The Black Ball”
- Compare and contrast pathos, ethos, and logos
- Revise sentences to correct misplaced and dangling modifiers

**Lesson 6: Hughes**

Objectives:
- Compare and contrast internal and external motivation
- Analyze the distinctive voices in the poetry of Langston Hughes
- Analyze character motivation in “Why, You Reckon?”

**Lesson 7: Frost**

Objectives:
- Identify characteristics of Robert Frost’s poetry
- Define aphorism and metaphor to better understand Frost’s poems
- Read, analyze, and interpret the poem, “Mending Wall”
- Differentiate between independent and subordinate clauses

**Lesson 8: Writing Workshop: Literary Analysis Rough Draft (two-day lesson)**

Objectives:
- Identify prewriting strategies and techniques for literary analysis
- Define vocabulary words associated with literary analysis
- Compose an outline based on a working thesis
- Compose the first and second drafts of a literary analysis
- Identify adverbial clauses and the words they modify

**Lesson 9: Fitzgerald (two-day lesson)**

Objectives:
- Define allegory and in medias res
- Create and analyze a time line of F. Scott Fitzgerald’s life
- Define vocabulary words to enhance understanding of the short story, “Babylon Revisited”
- Read, analyze, and interpret the short story, “Babylon Revisited”
- Complete elliptical clauses to understand their meaning

**Lesson 10: Porter**

Objectives:
- Compare and contrast internal and external conflict
- Define different types of literary characters
- Read, analyze, and interpret the short story, “He”
- Correctly punctuate adverbial clauses

**Lesson 11: Voices of Modernism (1920s–1940s) Unit Review**

Objectives:
- Develop strategies for deriving the meanings of unfamiliar words
- Prepare for the unit test

**Lesson 12: Voices of Modernism (1920s–1940s) Unit Test**

**Lesson 13: Writing Workshop: Literary Analysis Final Draft (two-day lesson)**

Objectives:
- Revise and proofread to develop the final draft of the literary analysis
Unit 2: The Research Paper

In Unit 5, you will have the opportunity to become an authority on a subject by creating your own research report. Working through the writing process, you will select a topic, evaluate sources and conduct research, cite sources properly, draft a report, and revise and edit the report before publishing it and submitting it for your portfolio. You will also read and analyze several nonfiction essays by writers of diverse backgrounds. In addition, you will continue to learn about verb forms and tenses.

Objectives:
- Compose a research report
- Read, analyze, and interpret nonfiction essays
- Review verb tenses and forms

Lesson 1: Introduction to Research Writing

Objectives:
- Describe how to begin a research report
- Read and analyze a model research report
- Edit sentences to correct errors associated with standard usage

Lesson 2: Choosing a Subject

Objectives:
- Choose a subject for the research report
- Develop research questions
- Properly cite sources in MLA format

Lesson 3: Introduction to Research

Objectives:
- Gather information and evaluate sources for the research report

Lesson 4: Gathering Information (two-day lesson)

Objectives:
- Compare and contrast print and Internet research sources
- Describe how to successfully use the Internet for research

Lesson 5: Using Quotations (two-day lesson)

Objectives:
- Organize notes effectively
- Avoid plagiarism by creating source cards

Lesson 6: Synthesizing and Organizing (two-day lesson)

Objectives:
- Synthesize information from different sources
- Compose a working thesis for the research report

Lesson 7: Documenting

Objectives:
- Document all sources used in research report
- Create a works cited page

Lesson 8: Outlining (two-day lesson)

Objectives:
- Organize supporting details
- Develop an outline

Lesson 9: Drafting (two-day lesson)

Objectives:
- Identify the characteristics of a successful introduction
- Understand and implement strategies for achieving coherence
- Compose a first draft of a research report
Lesson 10: Nonfiction Writing I

Objectives:
• Understand nonfiction text structures
• Correctly identify progressive and emphatic verb forms
• Read, analyze, and interpret the essays, "Familiar Strangers" and "Melting Pot"

Lesson 11: Nonfiction Writing II

Objectives:
• Read, analyze, and interpret a selection from “Life on the Color Lines”
• Analyze problems with verb tenses according to the meanings of sentences

Lesson 12: Evaluating Research

Objectives:
• Develop strategies for addressing “trouble spots” in the research report
• Evaluate the research report using a checklist

Lesson 13: Revising, Editing, and Publishing (two-day lesson)

Objectives:
• Revise the a research report using an evaluation checklist for revising
• Edit a report for grammar, usage, mechanics, and spelling
• Publish the final draft of a research report

Unit 3: The Great Gatsby

In this unit, you will examine the narrative structure of The Great Gatsby, a novel that depicts life among the rich during the Roaring Twenties in New York. As you read, you will analyze point of view as well as how such literary devices as symbols and allusions enhance the meaning of the novel. For your portfolio project, you will write a self-improvement plan for the narrator of the novel. The Great Gatsby is the recommended novel for English 11. Ernest Hemingway’s novella The Old Man and the Sea may be read instead of The Great Gatsby with prior teacher approval. Lessons and activities for The Old Man and the Sea will appear on the lower half of the page. Do not proceed with The Old Man and the Sea unless you have received approval from your teacher.

Objectives:
• Read, analyze, and interpret a novel by an American author
• Define vocabulary words in context
• Compose a self-improvement plan

Lesson 1: The Great Gatsby: The Jazz Age

Objectives:
• Describe the attitudes, fashion, and lifestyle of the 1920s
• Compare and contrast youth culture in the 1920s with that in the present
• Define vocabulary words in order to further understanding of the novel
• Define direct and indirect characterization
• Describe the central characters of The Great Gatsby

Lesson 2: The Great Gatsby: F. Scott Fitzgerald

Objectives:
• Describe the life of F. Scott Fitzgerald and the inspiration behind The Great Gatsby
• Define vocabulary words in order to further understanding of the novel
• Connect the novel with F. Scott Fitzgerald’s life

Lesson 3: The Great Gatsby: Tone and Point of View

Objectives:
• Define tone
• Compare and contrast different types of point of view
• Analyze point of view in The Great Gatsby
Lesson 4: The Great Gatsby: Social Groups and Class

Objectives:
- Analyze social groups and class as they apply to The Great Gatsby
- Define vocabulary words in order to further understanding of the novel

Lesson 5: The Great Gatsby: Significance of Time

Objectives:
- Analyze the significance of time in The Great Gatsby
- Define vocabulary words in order to further understanding of the novel
- Predict the fate of Gatsby and Daisy

Lesson 6: The Great Gatsby: The Dilemmas of Nick Carraway (two-day lesson)

Objectives:
- Analyze guidance for good living from Benjamin Franklin and Henry David Thoreau
- Assess Nick Carraway’s dilemmas
- Describe the requirements of the self-improvement plan portfolio assignment
- Compose the rough draft of a self-improvement plan for Nick Carraway

Lesson 7: The Great Gatsby: The American Dream

Objectives:
- Apply the concepts of materialism and the American dream to The Great Gatsby
- Define vocabulary words in order to further understanding of the novel
- Analyze the degree to which the characters in The Great Gatsby are able to achieve the American dream

Lesson 8: The Great Gatsby: Symbols and Allusions

Objectives:
- Define symbol and allusion
- Analyze the use of allusions in The Great Gatsby
- Define vocabulary words in order to further understanding of the novel
- Review for the quiz

Lesson 9: The Great Gatsby: A Timeless Tragedy

Objectives:
- Describe why The Great Gatsby has stood the test of time
- Use vocabulary words to write a personal reaction to the novel
- Evaluate how Nick changes over the course of the novel
- Demonstrate knowledge of the novel on a quiz

Lesson 10: The Great Gatsby: Loss of Innocence (two-day lesson)

Objectives:
- Describe Nick’s loss of innocence and what he has learned
- Practice linking modifiers for clarity
- Compose the final draft of a self-improvement plan for Nick Carraway

Unit 4: Post War Voices Emerge (1950s–1960s)

In Unit 2, you will enter the tumultuous times of post-World War II, during which time many people fought for change and rights were being demanded. This time in history saw the emergence of literature that voiced people’s discontent with the mundane life of traditionalism and a desire for a break in conventional living. In this unit, you will read and analyze the short stories of Kurt Vonnegut and John Updike as well as Martin Luther King Jr.’s “I Have a Dream” speech and poetry by writers of the Beat Generation. You will also identify elements of adjectival clauses. Your portfolio assessment for this unit will be a comparison-and-contrast essay in which you analyze the work of two authors.
Objectives:
- Read, analyze, and interpret postmodern poetry and prose
- Compose a comparison and contrast essay
- Review the elements of adjectival clauses

Lesson 1: Genres and Literary Movements (two-day lesson)

Objectives:
- Review basic genres of literature
- Define the prefixes sub- and ob- in order to understand the terms subjective and objective
- Identify characteristics of postmodern literature

Lesson 2: Vonnegut (two-day lesson)

Objectives:
- Define satire
- Identify adjectival clauses and the words they modify
- Read, analyze, and interpret the short story, "Harrison Bergeron"

Lesson 3: Updike (two-day lesson)

Objectives:
- Define conflict
- Define point of view
- Read, analyze, and interpret the short story, "A&P"
- Identify relative pronouns in adjectival clauses

Lesson 4: Compare and Contrast (two-day lesson)

Objectives:
- Describe the requirements for the compare-and-contrast essay portfolio assignment
- Understand how to develop, organize, and write a compare-and-contrast text
- Read, analyze, and interpret the selection, "A Double Impulse"
- Correctly punctuate adjectival clauses

Lesson 5: Speeches (two-day lesson)

Objectives:
- Identify elements of persuasion
- Read, analyze, and interpret the speech, "I Have a Dream"
- Identify and correct misplaced modifiers

Lesson 6: The Rough Draft (four-day lesson)

Objectives:
- Use quotations correctly and effectively
- Document quotations correctly
- Compose a rough draft of the compare-and-contrast essay

Lesson 7: Beat Generation

Objectives:
- Identify characteristics of the poetry of the Beat Generations
- Read, analyze, and interpret poetry of the Beat Generation
- Compare and contrast the poetry of the Romantics with that of the Beat Generation

Lesson 8: Unit Review

Objectives:
- Identify elements of a successful and effective group discussion
- Prepare for the unit test

Lesson 9: Postwar and Postmodern Unit Exam

Lesson 10: The Final Draft (two-day lesson)
Objectives:
- Incorporate unique voice into a compare-and-contrast essay
- Revise and finalize the compare-and-contrast essay

Unit 5: Contemporary Postmodernism
In this unit, you will study a variety of voices from contemporary postmodernism movement. The fight against racial and ethnic injustices took center stage during this literary movement that took place from the 1960s to the 1980s. You will read poetry and prose from authors of several different backgrounds whose writings contributed to the mosaic of the American culture. In this unit, you will also practice identifying the principal parts of verbs and using the six verb tenses as well as different voices and moods of verbs. For your portfolio assignment, you will compose a memoir.

Objectives:
- Read, analyze, and interpret contemporary postmodern poetry, nonfiction writing, and memoirs
- Compose a memoir using contemporary postmodern writing techniques
- Use verb tense, mood, and voice correctly to enhance writing

Lesson 1: Contemporary Literature
Objectives:
- Identify the characteristics of the movement called contemporary postmodernism
- Identify the principal parts of irregular verbs
- Describe the categories of poetry associated with contemporary postmodernism

Lesson 2: Charming Billy (two-day lesson)
Objectives:
- Describe ways in which the Vietnam War affected society
- Identify the six verb tenses
- Define vocabulary words to increase understanding of a short story
- Read, analyze, and interpret the short story, "Where Have You Gone, Charming Billy?"

Lesson 3: Mortals
Objectives:
- Read, analyze, and interpret the short story, "Mortals"
- Define vocabulary words to increase understanding of a short story
- Correctly express time using verb tenses

Lesson 4: Multicultural Meter: Many New Voices in the Mix
Objectives:
- Read, analyze, and interpret several examples of poetry by American contemporary poets
- Define the poetic elements of meter, rhythm, and rhyme
- Distinguish between active and passive voice

Lesson 5: Personal Narrative: Rough Draft (two-day lesson)
Objectives:
- Analyze a model personal narrative
- Compose the first draft of a memoir

Lesson 6: Memoirs (two-day lesson)
Objectives:
- Read, analyze, and interpret the memoir, "About Russell"
- Identify characteristics of reflective writing
- Correctly use the indicative, imperative, and subjunctive moods of verbs
- Define vocabulary words to better understand a memoir

Lesson 7: American Beauty
Appendix A.2.a Language Arts Course Guides

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Objectives:
• Read, analyze, and interpret the memoirs, "I Want to Be Miss America" and "The Struggle to Be an All-American Girl"
• Describe how stereotypes affect social interactions
• Define vocabulary to better understand memoirs
• Use the correct verb forms in sentences

Lesson 8: Contemporary Postmodernism Unit Review
Objectives:
• Recognize errors in grammar, usage, and mechanics
• Prepare for the unit test

Lesson 9: Contemporary Postmodernism Unit Test

Lesson 10: Personal Narrative: Final Draft (two-day lesson)
Objectives:
• Revise a memoir using an evaluation checklist
• Finalize and publish a memoir

Unit 6: Semester Review and Exam
In this unit, you will prepare for and take the semester exam. Since this is a comprehensive exam, it will cover the following units: Modernism, Postmodernism, The Great Gatsby, and Contemporary Postmodernism.

Applying the test-taking strategies that you have previously learned can help you be successful with the multiple choice, matching, true/false, and essay questions on the semester exam. Evaluating how you did on the first semester exam—identifying areas of weakness and strength—can also help you be successful on this semester’s exam.

Objectives:
• Prepare for the semester exam
• Assess understanding of literature, vocabulary, grammar, and writing in Semester B

Lesson 1: English 11 B Semester Review (two-day lesson)
Objectives:
• Prepare for semester exam
• Assess understanding of literature, vocabulary, grammar, and writing in Semester B

Lesson 2: English 11 B Semester Exam
ENGLISH 12 A
English 12 A

This is the first of two courses that comprise English 12. In this course, the student will take an in-depth look at early British literature from 449 to 1798 and will examine literary forms including the epic, poetry, drama, and the essay. The student will also read longer selections of literature that are representative of the historical setting, including Shakespeare's Macbeth. The student will read to gain an understanding and appreciation of the historical context from which the literature arose. Vocabulary development and mastery of critical grammar and communication skills prepare the student for writing creative narratives, and expository and persuasive essays.

Unit 1: The Anglo-Saxon Period: 449–1066

In this unit, you will read the earliest works of English literature. More than a millennium old, many of these works were passed down orally for centuries before they were written down. Anglo-Saxon literature includes lyric poems that express emotion, as well as the earliest epic poem of the English language, Beowulf, which presents the adventures of a hero who is larger than life. Additionally, you will read poems from The Exeter Book, a collection of Anglo-Saxon poetry preserved in manuscript form and dating back to the middle of the tenth century. Finally, you will use the writing process to compose a description based on a scene from Beowulf.

Objectives:
- Read and analyze selections from the Anglo-Saxon period
- Identify and analyze elements of epic poetry and lyric poetry in Anglo-Saxon literature
- Compare and contrast elements of Anglo-Saxon literature
- Write a description following the writing process
- Review the parts of speech

Lesson 1: Unit Introduction

Objectives:
- Preview the structure of the English 12 course
- Read, analyze, and interpret selections from the Anglo-Saxon period
- Compare and contrast elements of Anglo-Saxon literature
- Analyze a descriptive writing model
- Review the eight parts of speech

Lesson 2: Grendel, The Coming of Beowulf, The Battle (two-day lesson)

Objectives:
- Read, analyze, and interpret elements of epic poetry
- Compare and contrast elements of character
- Define suffixes to interpret word meanings
- Apply prewriting strategies for descriptive writing
- Identify intransitive and transitive verbs, verb phrases, and linking verbs

Lesson 3: Grendel’s Mother, The Battle with Grendel’s Mother (two-day lesson)

Objectives:
- Read, analyze, and interpret elements of the elegy, including poetic devices
- Identify alliteration, rhythm, and repetition
- Compare and contrast epic and elegy
- Apply prewriting strategies to develop description
- Identify adjectives and their function in a sentence

Lesson 4: The Battle with the Dragon, The Death of Beowulf (two-day lesson)

Objectives:
- Define and analyze protagonist and antagonist in fictional writing
- Define prefixes to interpret word meanings
- Complete prewriting strategies and identify a scene for description
- Identify adverbs and their function in a sentence
Lesson 5: Writing Workshop: Description (First Draft) (two-day lesson)

Objectives:
- Draft a descriptive essay incorporating sensory details
- Identify prepositions and their function in a sentence

Lesson 6: Lyric Poetry: The Exeter Book (two-day lesson)

Objectives:
- Read, analyze, and interpret elegy, elegiac verse, and descriptive details
- Identify mood and the poet's attitude
- Define denotation and connotation to interpret word meanings
- Identify conjunctions and interjections and their function in a sentence

Lesson 7: Language Focus: Style and Voice 449 - 1066

Objectives:
- Choose vivid words in writing
- Assess understanding of the unit vocabulary and parts of speech

Lesson 8: Unit Review

Objectives:
- Review the historical, social, and cultural context of the Anglo-Saxon time period
- Review characteristics of the epic and elegy
- Review parts of the speech and their functions in a sentence

Lesson 9: Unit Test

Lesson 10: Writing Workshop: Description (Final Draft) (two-day lesson)

Objectives:
- Edit, proofread, and publish a description

Unit 2: The Middle Ages: 1066–1485

In this unit, you will read literary works composed during the medieval era. These include Chaucer's narrative poem The Canterbury Tales, which presents various figures of medieval English society and the tales they tell while traveling on a long journey, and Sir Gawain and the Green Knight, a narrative poem based on the legends of King Arthur and his court. As you read, you will learn to analyze such literary elements as character, the narrator's voice and perspective, and tone. You will also learn about and examine the historical, social, and cultural climate of the Middle Ages by identifying causes and effects. Finally, you will use the writing process to write an allegory, an extended metaphor in the form of a short story.

Objectives:
- Read, analyze, and interpret selections from the medieval period
- Identify and analyze elements of medieval poetry, including narrative poems and epic tales
- Identify causes and effects while analyzing the historical, social, and cultural context of the Middle Ages
- Write an allegory following the writing process
- Review phrases and the sentence base

Lesson 1: The Middle Ages: Unit Introduction

Objectives:
- Read, analyze, and interpret selections from the Medieval period
- Identify elements of medieval poetry, including narrative poems and epic tales
- Identify causes and effects in the historical and cultural context of the Middle Ages
- Review the sentence base

Lesson 2: The Canterbury Tales: "The Prologue" (two-day lesson)
Objectives:
- Analyze elements of characterization
- Identify cause-and-effect relationships
- Compare and contrast varieties of English
- Identify Latin roots
- Identify subjects and predicates

Lesson 3: The Canterbury Tales: "The Prologue" (two-day lesson)

Objectives:
- Identify and analyze tone
- Identify cause-and-effect relationships
- Identify and analyze denotation and connotation
- Identify and correct sentence fragments

Lesson 4: The Canterbury Tales: "The Prologue" (two-day lesson)

Objectives:
- Identify and analyze irony
- Identify cause-and-effect relationships
- Use figurative language to improve style and voice
- Recognize complements

Lesson 5: The Canterbury Tales: "The Pardoner’s Tale" (two-day lesson)

Objectives:
- Identify and understand characteristics of a frame story
- Analyze character
- Use a dictionary

Lesson 6: The Canterbury Tales: "The Wife of Bath’s Tale" (two-day lesson)

Objectives:
- Identify and analyze narrator, voice, and perspective
- Compare and contrast characters
- Interpret word meanings through context clues
- Create an outline for creative writing
- Identify prepositional phrases and their function in a sentence

Lesson 7: Writing Workshop: Allegory (First Draft) (two-day lesson)

Objectives:
- Draft a modern allegory containing literary devices and a moral message
- Identify verbals and verbal phrases

Lesson 8: Medieval Romance: Sir Gawain and the Green Knight (two-day lesson)

Objectives:
- Read, analyze, and interpret romances
- Identify and analyze poetic devices such as alliteration
- Define suffixes to interpret word meanings
- Recognize and correct misplaced and dangling modifiers and sentence fragments

Lesson 9: Writing/Language Focus: Style and Voice

Objectives:
- Revise for sentence variety
- Combine sentences by coordinating and subordinating
- Apply knowledge of phrases to creative writing assessment

Lesson 10: The Middle Ages: 1066–1485: Unit Review

Objectives:
- Review the historical, social, and cultural context of the Middle Ages
Lesson 11: The Middle Ages: 1066–1485: Unit Test

Lesson 12: Writing Workshop: Allegory (Final Draft) (two-day lesson)

Objectives:
- Edit, proofread, and publish an allegory

Unit 3: Macbeth

In this unit, you will read Shakespeare’s tragic tale of the rise and fall of Macbeth, a fierce and loyal Scottish warrior is tempted by the prophecies of several witches and by his own ambitions to become king. Macbeth and his wife alternately collaborate and contend over the proper approach to achieve their ambitions. Macbeth, the tragic hero, discovers too late the dangers of unchecked ambition. As you read, you will analyze and interpret the dramatic structure of Macbeth, define words in context, and compose a persuasive essay.

Macbeth is the recommended play for English 12. Shakespeare's comedy Twelfth Night may be read instead of Macbeth with prior teacher approval. Lessons and activities for Twelfth Night will appear on the lower half of the lesson pages. Do not proceed with Twelfth Night unless you have received approval from your teacher.

Students reading either Macbeth or Twelfth Night will need to obtain a video of the performance. You will be asked to watch scenes from the play throughout this unit.

Objectives:
- Read, analyze, and interpret a Shakespearean tragedy
- Define vocabulary words in context
- Follow the writing process to compose a persuasive essay

Lesson 1: History and Heroes; Witches and Warriors

Objectives:
- Explore how Shakespeare incorporated some historical characters and altered others and why
- Discover James I’s fascination with witches and regicide
- Define tragedy, tragic hero, and tragic flaw

Lesson 2: Act I, Scenes I–II

Objectives:
- Read and analyze the text thoroughly
- Define new vocabulary and use in illustrative sentences
- Examine how setting influences a scene’s mood
- Define paradox and its influence on theme and character
- Examine the differences between direct and indirect characterization

Lesson 3: Act I, Scenes III–V (two-day lesson)

Objectives:
- Read and analyze the text thoughtfully
- Define new vocabulary and use in illustrative sentences
- Make predictions
- Define the three types of irony
- Identify examples of dramatic irony
- Define, distinguish, and identify soliloquies and asides

Lesson 4: Act I, Scenes VI–VII

Objectives:
- Read and analyze the text thoroughly
- Define new vocabulary and use in illustrative sentences
- Examine how analogies are used to persuade
- Re-examine the elements of the tragic hero as it applies to all of Act I
- Define exposition and inciting incident and apply to Act I
Lesson 5: Act II, Scenes I–II
Objectives:
• Read and analyze the text thoroughly
• Define new vocabulary and use in illustrative sentences
• Define and identify imagery
• Define foreshadowing and make connections to clues in Act I

Lesson 6: Act II, Scenes III–IV (two-day lesson)
Objectives:
• Read and analyze the text thoroughly
• Define new vocabulary and use in illustrative sentences
• Define and identify comic relief
• Define a pun and explore its use in the porter’s speech
• Explore the notion of the Great Chain of Being and its application to these two scenes
• Select a topic and develop a rough draft of a persuasive essay on the play

Lesson 7: Act III, Scenes I–III
Objectives:
• Read and analyze the text thoroughly
• Define new vocabulary and use in illustrative sentences
• Make predictions
• Assess the dramatic structure, determining which past events constitute the rising action
• Analyze sleep as an extended metaphor

Lesson 8: Act III, Scenes IV–VI
Objectives:
• Read and analyze the text thoroughly
• Define new vocabulary and use in illustrative sentences
• Make predictions
• Assess the dramatic structure and identify the play’s climax
• Review the device of indirect characterization and apply it to Lady Macbeth in the banquet scene
• Analyze the role of conflict—both internal and external—to drive the play’s action

Lesson 9: Act IV, Scenes I–III
Objectives:
• Read and analyze the text thoroughly
• Define new vocabulary and use in illustrative sentences
• Make predictions about the witches’ prophecies
• Define and identify rhyming couplets and create your own
• Define blank verse, and explore the reasons Shakespeare used it so frequently
• Define and identify alliteration

Lesson 10: Act V, Scenes I–VIII
Objectives:
• Read and analyze the text thoroughly
• Define new vocabulary and use in illustrative sentences
• Examine the remaining dramatic structure and identify the falling action and resolution
• Define and apply connotation to the “tomorrow and tomorrow and tomorrow” soliloquy
• Re-examine dramatic irony in light of the fulfillment of the prophecies

Lesson 11: The Art of Persuasion (two-day lesson)
Objectives:
• Revise and edit the final draft of a persuasive essay
Unit 4: The Renaissance: 1485–1660

In this unit, you will read literary works composed during the English Renaissance. These include a variety of poetic genres, including sonnets and lyric, pastoral, metaphysical, and epic poetry. As you read, you will learn to analyze such poetic elements as speaker, figurative language, and tone. You will also learn about and examine the historical, social, and cultural climate of the Renaissance by making generalizations about that period. Finally, you will use the writing process to write an expository essay on a subject of your choice.

Objectives:
- Read and analyze selections from the Renaissance period
- Identify and analyze elements of sonnets and lyric, pastoral, metaphysical, and epic poetry
- Make generalizations about the historical, social, and cultural context of the Renaissance
- Analyze such poetic elements as speaker, figurative language, and tone
- Review clauses

Lesson 1: The Renaissance: 1485–1660: Unit Introduction

Objectives:
- Read and analyze selections from the Renaissance period
- Identify elements of lyric poetry, pastoral, and sonnet in Renaissance literature
- Read a time line
- Make generalization about the historical, social, and literary context of the Renaissance
- Review clauses

Lesson 2: Sonnets: Wyatt and Spenser (two-day lesson)

Objectives:
- Analyze sonnets
- Identify Petrarchan conceits
- Research etymology
- Recognize independent and subordinate clauses

Lesson 3: Pastoral Poetry: Marlowe and Raleigh

Objectives:
- Analyze elements of lyric poetry and pastorals
- Recognize adverbial clauses

Lesson 4: Sonnets: Shakespeare (two-day lesson)

Objectives:
- Analyze Shakespearean sonnets
- Identify and analyze simile and metaphor
- Recognize adjectival clauses
- Recognize noun clauses

Lesson 5: Writing Workshop: Expository Writing (First Draft) (two-day lesson)

Objectives:
- Draft an expository essay incorporating a strong thesis statement and coherent ideas
- Apply appropriate transitions to writing

Lesson 6: Metaphysical Poetry: Donne (two-day lesson)

Objectives:
Lesson 7: Epigrams and Songs: Jonson (two-day lesson)

Objectives:
• Identify characteristics of an epigram
• Identify and analyze tone
• Make inferences about author
• Identify clause fragments

Lesson 8: John Milton: Paradise Lost (two-day lesson)

Objectives:
• Identify and analyze elements of the epic
• Identify and analyze allusion
• Define archaic language to interpret word meaning
• Identify run-on sentences

Lesson 9: Writing/Language Focus: Style and Voice

Objectives:
• Identify and correct rambling sentences
• Avoid wordiness in writing

Lesson 10: The Renaissance: 1485–1660: Unit Review

Objectives:
• Review the historical, social, and cultural context of the Renaissance
• Review characteristics of poetic forms
• Review figures of speech
• Review clauses

Lesson 11: The Renaissance: 1485–1660: Unit Test

Lesson 12: Writing Workshop: Expository Writing (Final Draft) (two-day lesson)

Objectives:
• Edit, proofread, and publish an expository essay
• Review clauses

Unit 5: The Restoration and the Enlightenment: 1660–1798

In this unit, you will read literary works composed during the Restoration and the Enlightenment periods. These include a variety of fiction, nonfiction, and poetic genres including diaries, mock epics, satires, and elegies. As you read, you will learn to analyze elements such as point of view, irony, and imagery. You will also learn about and examine the historical, social, and cultural climate of the Restoration and the Enlightenment by classifying information, or arranging ideas into fitting categories. Finally, you will use the writing process to write a poem using a specified form.

Objectives:
• Read and analyze selections from the Restoration and the Enlightenment period
• Identify and analyze elements of diary, mock epic, satire, and elegy
• Classify information about the historical, social, and cultural context of the Restoration and the Enlightenment
• Complete a poetry creating writing assessment, following a specific process
• Review verbs

Lesson 1: Lesson 1: Unit Introduction

Objectives:
• Read and analyze selections from the Restoration and the Enlightenment period
• Identify elements of diary, essay, satire, biography, and poetry

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Lesson 2: Lesson 2: Diaries: Pepys (two-day lesson)

Objectives:
- Identify characteristics of diary
- Identify and analyze first-person point of view
- Identify the principal parts of verbs

Lesson 3: Lesson 3: Satire in Poetry: Pope

Objectives:
- Identify and analyze element of parody
- Analyze mock epics
- Identify and analyze heroic couplet
- Recognize verb tense

Lesson 4: Lesson 4: The Satirical Essay: Swift (two-day lesson)

Objectives:
- Identify and analyze irony and satire
- Identify and analyze roots
- Identify active and passive voice

Lesson 5: Lesson 5: Elegy: Gray

Objectives:
- Identify and analyze element of the elegy
- Analyze imagery
- Review active and passive verbs
- Review mood of verbs

Lesson 6: Lesson 6: Writing Workshop: Creative Writing (two-day lesson)

Objectives:
- Organize details for writing a poem
- Draft a poem using a specific form
- Use appropriate tone in writing
- Identify active and passive voice

Lesson 7: Lesson 7: Unit Review

Objectives:
- Review the historical, social, and cultural context of the Restoration and the Enlightenment
- Review characteristics of diary, mock epic, satirical essay, and elegy
- Review verbs

Lesson 8: Lesson 8: Unit Test

Lesson 9: Lesson 9: Writing Workshop: Creative Writing (two-day lesson)

Objectives:
- Revise, proofread, and publish a creative writing assignment
- review verbs

Unit 6: Semester Exam

In this unit, you will have the opportunity to prepare for and take the final exam on the concepts you learned throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.
Lesson 1: Semester Review (two-day lesson)

Objectives:
- Review major works of British literature from the Anglo-Saxon period through the eighteenth century
- Review effective comprehension strategies for reading these selections
- Review literary elements
- Review elements of grammar, usage, and style

Lesson 2: Semester Exam

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ENGLISH 12 B
English 12 B

This is the second of two courses that comprise English 12. In this course, the student continues to explore a variety of literature selections from British literature, including well-known works. The student will learn strategies for reading lyric poetry and study the characteristics of reflective essays. The student will analyze poetry, short stories, and essays from the Romantic Period, Victorian Age, and Modern Era and will determine how the historical context affected the thematic material and writing style from each era.

Writing instruction focuses on literary analysis, including in-depth instruction in the process of writing a research paper. This project teaches the student to critically analyze primary and secondary sources and to effectively support his ideas with information gathered from outside sources.

Unit 1: The Romantic Period (1798–1832)

This unit explores elements of dialect poetry and lyrical poetry during the Romantic period, and the Romantic sensibility expressed in the poems of the time.

Objectives:
- Learn about the historical and literary context of the Romantic period
- Review poetic elements and figures of speech
- Review pronouns

Lesson 1: Unit Introduction

Objectives:
- Read and analyze selections from the romantic period
- Identify and analyze poetic elements
- Read a time line
- Read about historical and cultural context
- Review pronouns in the nominative case

Lesson 2: Dialect: Robert Burns (two-day lesson)

Objectives:
- Identify and analyze speaker and theme
- Review pronouns in the objective case
- Analyze dialect poetry

Lesson 3: Romantic Poetry: Blake (two-day lesson)

Objectives:
- Identify and analyze symbols and tone
- Identify Greek etymology
- Review pronouns in the possessive case

Lesson 4: Lyric Poetry: Wordsworth (two-day lesson)

Objectives:
- Identify and analyze elements of lyric poetry and sonnet
- Draw conclusions about the romantic period
- Determine the meaning of multiple-meaning words
- Review relative pronouns

Lesson 5: Lyric Poetry: Coleridge (two-day lesson)

Objectives:
- Identify and analyze sound devices in poetry
- Analyze elements of narrative poetry
- Identify connotation and denotation
- Review pronouns in comparison

Lesson 6: Byron (two-day lesson)

Objectives:
- Identify and analyze meter
- Identify elements of poetic structure
Lesson 7: Shelley (two-day lesson)

Objectives:
- Identify and analyze apostrophes, personification, and terza rima
- Identify and understand symbols
- Review pronouns and their antecedents

Lesson 8: Keats (two-day lesson)

Objectives:
- Analyze odes
- Identify and analyze simile and metaphor
- Review pronouns and their antecedents

Lesson 9: The Romantic Period (1798–1832) Unit Review

Objectives:
- Review dialectal poetry and forms of lyrical poetry such as odes
- Review elements of poetry
- Review figurative language
- Review pronouns

Lesson 10: The Romantic Period (1798–1832) Unit Test

Unit 2: Frankenstein

*Frankenstein* is the story of a young man, Victor Frankenstein, who becomes obsessed with studying anatomy and determined to understand how life is created. Passionate about science and dedicated to his dream, he creates a living being; however, his success dramatically affects his life and the lives of his family and friends. The details of Victor’s life are shared through letters from Robert Walton, an English explorer on an expedition to the North Pole, to his sister Margaret Seville in England. Robert learns Victor’s tragic tale when he rescues Victor, who is traveling by himself in the Arctic.

In this unit, you will identify literary elements, analyze characters, use comprehension strategies to make connections and draw conclusions, and define unfamiliar vocabulary words.

*Frankenstein* is the recommended novel for English 12. Jane Austen’s novel *Pride and Prejudice* may be read instead of *Frankenstein* with prior teacher approval. Lessons and activities for *Pride and Prejudice* will appear on the lower half of the lesson pages.

Published in 1813, *Pride and Prejudice* is the story of a middle-class English family, the Bennets. Mr. and Mrs. Bennet have five daughters in their teens and early twenties, and the family’s security depends on the girls’ prospects for marriage. Austen’s novel focuses primarily on the second-eldest of the sisters, the passionate and outspoken Elizabeth, and her relationship with Fitzwilliam Darcy, a wealthy bachelor. In relating the romantic adventures of Elizabeth and her sisters, Austen provides a detailed account of love and marriage at the end of the eighteenth century.

In this unit, you will identify literary elements, analyze characters, use comprehension strategies to make connections and draw conclusions, and define unfamiliar vocabulary words.

Objectives:
- Develop and apply effective comprehension strategies
- Analyze relationships between and among the characters, setting, and events
- Define new vocabulary and identify words in context

Lesson 1: Frankenstein

Objectives:
- Recognize differences between popular depictions of Frankenstein’s monster and the monster’s portrayal in Mary Shelley’s original novel
Lesson 2: Frankenstein

Objectives:
- Draw connections between self and text
- Develop and apply effective comprehension strategies
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Describe the Romantic Era

Lesson 3: Frankenstein

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Understand relationships between the novel Frankenstein and Greek mythology

Lesson 4: Frankenstein

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Review literary elements, including setting and point of view, and analyze their role in the novel Frankenstein

Lesson 5: Frankenstein

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Understand the relationship between the novel Frankenstein and the epic poem Paradise Lost

Lesson 6: Frankenstein

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Review the four types of conflict and identify conflicts in the novel Frankenstein

Lesson 7: Frankenstein

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Analyze techniques by which the author creates suspense in the novel, such as foreshadowing

Lesson 8: Frankenstein

Objectives:
- Read and analyze the text, then respond to questions
- Define new vocabulary and identify words in context
- Analyze the effect of the setting in the final chapters of the novel

Lesson 9: Frankenstein Unit Review

Objectives:
- Study vocabulary and review previous lesson goals

Lesson 10: Frankenstein Unit Test
The Unit guides student through the process of developing a research paper. Students are asked to create a multimedia presentation based on their paper and learn to interpret and implement feedback from peers and teacher.

Objectives:
- Develop a research paper following the writing process
- Develop a multimedia presentation
- Interpret and implement feedback
- Review capitalization rules

Lesson 1: Writing a Research Paper

Objectives:
- Comprehend the basic elements of a research paper
- Generate a topic for a research paper
- Conduct preliminary research to identify potential areas of focus
- Review capitalization of first words and the pronoun I

Lesson 2: Gathering Information (two-day lesson)

Objectives:
- Learn strategies to select and evaluate print and online resources
- Create outline for multimedia presentation
- Review capitalization of nouns

Lesson 3: Taking Notes (three-day lesson)

Objectives:
- Practice effective note-taking strategies
- Understand the use of note cards
- Review capitalization of nouns

Lesson 4: Organizing a Paper (two-day lesson)

Objectives:
- Synthesize ideas and details from multiple informational texts
- Draft a working thesis statement
- Create an outline for a research paper
- Review capitalization of nouns

Lesson 5: Drafting the Introduction and Refining the Thesis (two-day lesson)

Objectives:
- Draft the introduction
- Refine the thesis
- Review capitalization of proper adjectives

Lesson 6: Drafting the Body and Conclusion (two-day lesson)

Objectives:
- Draft the body paragraphs and conclusion

Lesson 7: Revising for Clarity, Coherence, and Unity

Objectives:
- Revise draft for clarity, coherence, and unity
- Understand and implement comments and feedback
- Review capitalization of titles

Lesson 8: Revising at the Sentence Level

Objectives:
- Revise draft at the sentence level
- Understand and implement comments and feedback

Lesson 9: Citations and Works Cited Page (two-day lesson)

Objectives:
- Cite sources correctly
Lesson 10: Editing, Proofreading, and Publishing (two-day lesson)

Objectives:
• Edit, publish, and reflect on the final draft of a research paper

Unit 4: The Victorian Age (1832–1901)

The unit explores elements, genres, and structure of Victorian poetry.

Objectives:
• Learn about the historical and literary context of the Victorian Age
• Review poetic elements and figures of speech
• Review subject-verb agreement

Lesson 1: Unit Introduction

Objectives:
• Read and analyze selections from the Victorian period
• Identify elements of poetry
• Read a time line
• Read about historical and cultural context

Lesson 2: Tennyson (two-day lesson)

Objectives:
• Identify and analyze mood
• Review agreement of subjects and verbs

Lesson 3: Robert and Elizabeth Browning (two-day lesson)

Objectives:
• Identify and analyze elements of dramatic monologue
• Analyze a sonnet
• Identify an unreliable narrator
• Review the agreement of subjects and verbs

Lesson 4: Hopkins

Objectives:
• Identify instances of sprung rhythm
• Analyze poetry
• Review the agreement of subjects and verbs

Lesson 5: Arnold

Objectives:
• Identify and analyze theme
• Identify and analyze tone
• Review the agreement of subjects and verbs

Lesson 6: Hardy (two-day lesson)

Objectives:
• Identify and analyze imagery and irony
• Review the agreement of subjects and verbs

Lesson 7: The Victorian Age (1832–1901) Unit Review

Objectives:
• Review poetic elements and devices in Victorian literature
• Review the agreement of subjects and verbs

Lesson 8: The Victorian Age (1832–1901) Unit Test

Unit 5: The Modern Era (1901–Present)

This unit explores the historical, social, and cultural context of the twentieth century, connecting it to the literary works of the time. You will read and analyze a variety of
selections, including short stories, poems, and essays. You will also develop a literary analysis based on an aspect of the modern era.

Objectives:
- Learn about the historical and literary context of the Modern Era
- Learn about Modernism and Post-Modernism
- Review poetic elements and figures of speech
- Review narrative elements
- Develop a literary analysis

Lesson 1: Unit Introduction: A New Era

Objectives:
- Read and analyze selections from the modern era
- Identify elements of poetry, short stories, and essays in modern literature
- Evaluate the modern era of British literature
- Read a timeline
- Read about historical and cultural context

Lesson 2: William Butler Yeats

Objectives:
- Identify and analyze symbols and imagery
- Define suffixes to interpret word meanings
- Practice response to literature
- Review commas

Lesson 3: James Joyce (two-day lesson)

Objectives:
- Identify and analyze epiphany
- Identify and analyze setting
- Apply prewriting strategies to develop a literary analysis
- Define suffixes to interpret word meanings
- Review commas

Lesson 4: Virginia Woolf

Objectives:
- Analyze an essay
- Identify and comprehend allusion
- Define synonyms to interpret word meanings
- Review commas

Lesson 5: T. S. Eliot (two-day lesson)

Objectives:
- Identify and interpret free verse
- Identify and analyze mood
- Define antonyms to interpret word meanings
- Review apostrophes

Lesson 6: Writing Workshop: Literary Analysis Rough Draft (three-day lesson)

Objectives:
- Draft a literary analysis incorporating direct quotations
- Improve stylistic and rhetorical techniques in writing
- Implement feedback
- Review apostrophes

Lesson 7: Dylan Thomas (two-day lesson)

Objectives:
- Identify and interpret half rhyme and internal rhyme
- Identify characteristics of a villanelle
- Define suffixes to interpret word meanings
- Review semicolons
Lesson 8: Graham Greene (two-day lesson)

Objectives:
- Identify and interpret humor and pathos
- Evaluate aspects of modernism
- Review plurals
- Review colons

Lesson 9: Owen, Brooke, Sassoon

Objectives:
- Identify and analyze tone
- Identify repetition and parallelism
- Use context clues to interpret word meanings
- Review italics

Lesson 10: George Orwell (two-day lesson)

Objectives:
- Analyze elements of a reflective essay
- Identify and analyze irony and understatement
- Define denotation and connotation to interpret word meanings
- Review quotation marks

Lesson 11: Stevie Smith

Objectives:
- Analyze voice and diction in poetry
- Review ellipses

Lesson 12: Doris Lessing (two-day lesson)

Objectives:
- Analyze setting and character development
- Identify instances of kinesthetic imagery
- Review hyphens

Lesson 13: Anita Desai

Objectives:
- Analyze character motivation
- Identify and analyze irony
- Review dashes, parentheses, and brackets

Lesson 14: Writing/Language Focus: Unity and Coherence

Objectives:
- Revise literary analysis for coherence, unity, and emphasis
- Use parallelism to strengthen meaning

Lesson 15: The Modern Era (1901–Present) Unit Review

Objectives:
- Review elements of modern poetry, essays, and short stories
- Review punctuation

Lesson 16: The Modern Era (1901–Present) Unit Test

Lesson 17: Writing Workshop: Literary Analysis Final Draft (two-day lesson)

Objectives:
- Edit, proofread, and publish a literary analysis
- Edit for sentence fragments in formal writing

Unit 6: Semester Review and Exam

In this unit, you will prepare for and take the semester exam. Since this is a comprehensive exam, it will cover each unit from the semester. Applying the test-taking strategies that you...
have previously learned can help you be successful with the multiple choice, matching, short answer, and essay questions on the semester exam.

Objectives:
- Prepare for the semester exam
- Assess your understanding of literature, vocabulary, grammar, and writing in Semester B

**Lesson 1: Semester Review (two-day lesson)**

Objectives:
- Prepare for semester exam
- Assess understanding of literature, vocabulary, grammar, and writing in Semester B

**Lesson 2: Semester Exam**
APPENDIX A
CURRICULUM

A.2 COURSE GUIDES

b. MATH
This document is part of Appendix A: Curriculum.

It includes course guides for each Math class for students in Kindergarten through Grade 12.

- Math K A
- Math K B
- Math 1 A
- Math 1 B
- Math 2 A
- Math 2 B
- Math 3 A
- Math 3 B
- Math 4 A
- Math 4 B
- Math 5 A
- Math 5 B
- Math 6 A
- Math 6 B
- Math 7 A
- Math 7 B
- Essential Math 3 A
- Essential Math 3 B
- Essential Math 4 A
- Essential Math 4 B
- Essential Math 5 A
- Essential Math 5 B
- Essential Math 6 A
- Essential Math 6 B
- Algebra Readiness A
- Algebra Readiness B
- Essential Algebra Readiness A
- Essential Algebra Readiness B
- Algebra 1 A
- Algebra 1 A, Part 1
- Algebra 1 A, Part 2
- Algebra 1 B
- Algebra 1 B, Part 1
- Algebra 1 B, Part 2
- Algebra 2 A
- Algebra 2 A, Part 1
- Algebra 2 A, Part 2
- Algebra 2 B
- Algebra 2 B, Part 1
- Algebra 2 B, Part 2
- Pre-Calculus A
- Pre-Calculus B
- Consumer Math A
- Consumer Math B
- Geometry A
- Geometry B

Course guides provide detailed information on the curriculum including course descriptions, unit summaries, lesson objectives, activities, and assessment types. Course guides include information on:

- Planned instruction (provided in the unit summary of each unit within individual Course Guides)
- Course objectives (provided in the unit and lesson objectives within individual Course Guides)
- Activities (provided in the unit summary and lesson objectives of each unit within individual Course Guides)
MATH K A
Math K A

In this course, mathematical thinking and problem solving are introduced. Students explore topics and apply mathematical practices outlined in the Common Core State Standards and other state standards. They learn how to identify numbers, write numbers zero to 20, and count to 100 by ones and tens. They also describe, sort, and compare objects and learn basic shapes. Stories and activities introduce addition and subtraction. A combination of interactive and hands-on exercises teaches students about money, time, fractions, and measurement.

Unit 1: Let's Learn Math!

In this unit, your student will learn about the activities she will do in math class. The first lesson, intended for Learning Coaches, provides advice for using the Lesson Guide to support your student, and details the resources found in the course. It also offers helpful tips for building your student's math skills. The second lesson is intended for students and their Learning Coaches. This lesson will introduce your student to the concept of math, and describe the structure of math lessons.

Lesson 1: Learning Coach: Support Your Student in Math

Lesson 2: Welcome to Math!

Unit 2: One to Five

Your student will learn to count 1–5. He will learn that the number of objects remains the same even if the order changes. He will be taught to write and read the numbers 1–5. The lessons will introduce the idea that each item is only counted once. Your student will be given strategies to encourage counting with one-to-one correlation. Using what he has learned, he will make a book about his state that he will submit as a portfolio assessment.

Objectives:
• Represent and count the quantities 1 to 5
• Identify the total number of objects in a set regardless of arrangement
• Recognize and write the numerals 1 to 5
• Solve problems by using objects
• Evaluate surroundings to create a number book

Lesson 1: Counting 1, 2, and 3

Objectives:
• Use objects to represent and count the quantities 1, 2, and 3

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Lesson 2: Counting 1, 2, and 3 in Different Arrangements

Objectives:
• Identify whether a particular set includes 1, 2, or 3 objects, regardless of how the objects are arranged

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Lesson 3: Reading and Writing 1, 2, and 3

Objectives:
• Recognize and write the numerals that describe the quantities 1, 2, and 3

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Lesson 4: Mid-Unit Review

Objectives:
• Represent and count the quantities 1 to 3
• Identify the total number of objects in a set
• Identify the total number of objects in a set regardless of arrangement
• Recognize and write the numerals 1 to 3
Lesson 5: Counting 4 and 5

Objectives:
• Use objects to represent and count the quantities 4 and 5

Lesson 6: Counting 4 and 5 in Different Arrangements

Objectives:
• Identify whether a particular set includes 4 or 5 objects

Lesson 7: Reading and Writing 4 and 5

Objectives:
• Recognize and write numerals that describe the quantities 4 and 5

Lesson 8: Problem Solving: Use Objects

Objectives:
• Solve problems by using objects

Lesson 9: Math Project – Social Studies (two-day lesson)

Objectives:
• Observe surroundings to create a number book

Lesson 10: One to Five Unit Test

Unit 3: Comparing and Ordering 0 to 5

In this unit, your student will learn to compare numbers 0–5. She will use comparison words such as *more*, *fewer*, *same*, and *as many* to explain the relationships between numbers. By recognizing differences of 1 and 2 fewer and more, your student will continue to develop strength in counting and comparing. The student will be introduced to reading and writing the number 0. She will understand that zero means none. She will also have the chance to describe and evaluate equal groups. Your student will explore ordinal numbers first through fifth. She will have the opportunity to use ordinal numbers to describe positions of objects in a group.

Objectives:
• Recognize and compare groups of objects to identify which group has more, fewer, the same number as, as many, more, or fewer
• Use zero to represent a set of objects when there are none and recognize and write the numeral 0
• Sequence numbers 0 to 5
• Identify ordinal positions
• Solve problems by using objects to act out the problem

Lesson 1: More, Fewer, and Same As

Objectives:
• Use one-to-one correspondence to compare objects and decide whether one group has more, fewer, or the same number as the other group

Lesson 2: 1 and 2 More

Objectives:
• Recognize and identify a group of objects that has 1 more or 2 more than another group
Lesson 3: 1 and 2 Fewer

Objectives:
- Recognize and identify a group of objects that has 1 fewer or 2 fewer from another group

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Lesson 4: The Number 0

Objectives:
- Understand that zero means none

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Lesson 5: Reading and Writing 0

Objectives:
- Recognize and write the numeral that describes the quantity of 0

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Lesson 6: As Many, More, and Fewer

Objectives:
- Use one-to-one correspondence to compare two groups and determine whether one group has more, fewer, or as many as the other group

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Lesson 7: Mid-Unit Review

Objectives:
- Recognize and compare groups of objects to identify which group has more, fewer, or the same number
- Use zero to represent a set of objects when there are none
- Recognize and write the numeral 0
- Recognize and compare two groups of objects to determine if the number of objects is as many, more, or fewer

Lesson 8: Ordering Numbers 0 to 5

Objectives:
- Use objects to order numbers 0 to 5 in sequence

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Lesson 9: Ordinal Numbers Through Fifth

Objectives:
- Use words first through fifth to identify ordinal positions

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Lesson 10: Problem Solving: Use Objects

Objectives:
- Use objects to show the number in each group, order the number of objects in each group, and identify the group that has the most or fewer number objects

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Lesson 11: Comparing and Ordering 0 to 5 Unit Test

Unit 4: Six to Ten

Your student will be introduced to the numbers 6 to 10. He will use these numbers to count, evaluate, and manipulate. Writing the numbers 6 to 10 will be taught and evaluated in this
unit with particular attention to the orientation of the numbers. Your student will be introduced to patterning. He will pattern using number of objects.

Objectives:
- Represent and count the quantities 1 to 10
- Identify the total number of objects in a set regardless of arrangement
- Recognize and write the numerals 6 to 10
- Solve problems by predicting and identifying patterns
- Evaluate surroundings to create a number book

Lesson 1: Counting 6 and 7

Objectives:
- Use objects to represent and count the quantities of 6 and 7

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Lesson 2: Reading and Writing 6 and 7

Objectives:
- Recognize and write the numerals that describe the quantities 6 and 7

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Lesson 3: Counting 8 and 9

Objectives:
- Use objects to represent and count the quantities of 8 and 9

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Lesson 4: Reading and Writing 8 and 9

Objectives:
- Recognize and write numerals that describe the quantities 8 and 9

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Lesson 5: Mid-Unit Review

Objectives:
- Represent and count the quantities 1 to 9
- Identify the total number of objects in a set regardless of arrangement
- Recognize and write the numerals 6 to 9

Lesson 6: Counting 10

Objectives:
- Use objects to represent and count the quantity 10

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Lesson 7: Reading and Writing 10

Objectives:
- Recognize and write the numeral that describes the quantity of 10

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Lesson 8: Problem Solving: Looking for a Pattern

Objectives:
- Solve problems by identifying growing patterns and predicting what comes next

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Lesson 9: Math Project – Social Studies (two-day lesson)

Objectives:
Lesson 10: Six to Ten Unit Test

Unit 5: Comparing and Ordering Numbers 0 to 10

Your student will learn to compare numbers. She will learn when evaluating two numbers the greater number is more and the smaller number is less. The student will understand that it is helpful to use 5 or 10 as a benchmark. She will compare numbers that are 1 and 2 more as well as 1 and 2 less. All of these skills will be used to help order the numbers through 10. She will continue to order while being exposed to using a number line.

Objectives:
- Analyze two different sets of objects to determine which set is greater and which set is less
- Apply 1 to 1 correspondence to determine quantity of a set of objects
- Analyze a number 0 to 12 and identify if it is greater or less than 5 or 10
- Identify a number that is 1 or 2 more or 1 or 2 less than another number
- Analyze numbers from 1 to 10 and put them in the correct order

Lesson 1: Comparing Numbers through 10

Objectives:
- Compare two numbers using sets of objects and one-to-one correspondence to determine which number is greater and which is less

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Lesson 2: Comparing Numbers to 5

Objectives:
- Given a number from 0–5, tell if the number is greater or less than 5

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Lesson 3: Comparing Numbers to 10

Objectives:
- Given a number or set from 0–12, decide if the number is greater or less than 10

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Lesson 4: 1 More

Objectives:
- Use counting to identify a number that is 1 more than another number

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Lesson 5: 1 Fewer

Objectives:
- Use counting to identify a number that is 1 fewer than another number

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Lesson 6: Mid-Unit Review

Objectives:
- Analyze two different sets of objects to determine which set is greater and which set is less
- Apply 1 to 1 correspondence to determine quantity of a set of objects
- Analyze a number 0 to 12 and identify if a number between 0 and 12 is greater or less than 5
- Identify if a number between 0 and 12 is greater or less than 10
- Identify numbers that are 1 more or 1 fewer than other numbers

Lesson 7: 2 More

Appendix A.2.b Mathematics Course Guides
Math K A
© 2016 Connections Education LLC. All rights reserved.
Objectives:
• Use counting to identify a number that is 2 more than another number  
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Lesson 8: 2 Fewer 📊
Objectives:
• Use counting to identify a number that is 2 fewer than another number  
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Lesson 9: Ordering Numbers through 10 (two-day lesson) 📊
Objectives:
• Order numbers from 0 through 10 in sequence  
  Objectives derived from Pearson Education programs © Pearson Education, Inc., or its affiliates. All rights reserved.

Lesson 10: Ordering Numbers on a Number Line 📊
Objectives:
• Use a number line to count numbers 0 to 10 in order  
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Lesson 11: Problem Solving: Use Objects 📊
Objectives:
• Solve problems by using counters to show 1 more and 2 more  
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Lesson 12: Comparing and Ordering Numbers 0 to 10 Unit Test 📊

Unit 6: Numbers to 20
Your student will learn to count, read, and write numbers from 11–20. Your student will learn to use logical reasoning to solve word problems.

Objectives:
• Recognize and represent with manipulatives the quantities 11 to 20  
  • Recognize and write the numerals 11 to 20  
  • Solve problems in an ascending or descending sequence of numbers by using logical reasoning

Lesson 1: Counting, Reading, and Writing 11 and 12 📊
Objectives:
• Recognize and write the numerals that describe the quantities 11 and 12  
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Lesson 2: Counting, Reading, and Writing 13, 14, and 15 📊
Objectives:
• Recognize and write the numerals that describe the quantities 13 to 15  
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Lesson 3: Mid-Unit Review
Objectives:
• Recognize and represent with manipulatives the quantities 11 to 15  
  • Recognize and write the numerals 11 to 15

Lesson 4: Counting, Reading, and Writing 16 and 17 📊
Objectives:
• Recognize and write the numerals that describe the quantities 16 and 17

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Lesson 5: Counting, Reading, and Writing 18, 19, and 20

Objectives:
- Recognize and write the numerals that describe the quantities 18, 19, and 20

Lesson 6: Problem Solving: Use Logical Reasoning

Objectives:
- Solve problems by applying logical reasoning to identify missing numbers in a number sequence

Lesson 7: Numbers to 20 Unit Test

Unit 7: Numbers to 100

In this unit, your student will explore numbers up to 100. She will learn how to count to 100 and write numbers to 100. She will use ten-frames, a hundred chart, and counters to help visualize numbers up to 100 in terms of groups of 10. To reinforce the concept of 100, your student will use on-screen manipulatives as well as physical manipulatives. In addition, she will use and reference the hundreds chart.

Objectives:
- Recognize, count, write, and represent with manipulatives quantities to 100
- Analyze groups of objects to estimate quantities
- Count and write numbers to 100 using a hundred chart
- Use a hundred chart to count by 2s and 10s
- Solve problems by identifying a pattern

Lesson 1: Counting to 30

Objectives:
- Count to 30 objects

Lesson 2: About How Many?

Objectives:
- Use benchmarks to estimate quantities of groups

Lesson 3: Counting to 100

Objectives:
- Count and write numbers to 100 on the hundred chart

Lesson 4: Mid-Unit Review

Objectives:
- Recognize, count, write, and represent with manipulatives the quantities to 100
- Analyze groups of objects to estimate quantities
- Evaluate groups of 10 to encourage counting up to 100

Lesson 5: Counting Groups of Ten

Objectives:
- Count groups of 10, up to 10 tens, and write how many
Lesson 6: Patterns on a Hundred Chart

Objectives:
• Use a hundred chart to recognize patterns when counting by 2s and 10s

Lesson 7: Problem Solving: Look for a Pattern

Objectives:
• Solve problems by looking for a pattern

Lesson 8: Numbers to 100 Unit Test

Unit 8: Understanding Addition

In this unit, your student will be exposed to addition in a developmentally appropriate manner using storytelling and manipulatives. He will understand that when two groups join, the individual groups no longer exist. Instead, there is a newly formed group that now represents the total. He will be introduced to the addition sign, the equal sign, and the horizontal format of addition. Your student will be asked to tell an addition story by representing the statement with a picture.

Objectives:
• Evaluate joining stories using manipulatives and images to help solve the problem
• Write numbers and apply the concept of altogether to the joining stories
• Recognize and use the plus sign when reading and recording joining stories
• Evaluate and solve addition sentences that represent joining stories
• Evaluate data by drawing pictures to solve the addition problem

Lesson 1: Stories About Joining

Objectives:
• Act out numbers stories that involve joining two groups

Lesson 2: More Joining

Objectives:
• Interpret illustrations that show joining groups and write the corresponding numbers

Lesson 3: Joining Groups

Objectives:
• Determine how many there are altogether when two groups are joined

Lesson 4: Using the Plus Sign

Objectives:
• Use the plus sign (+) to represent joining groups when recording addition

Lesson 5: Mid-Unit Review

Objectives:
• Evaluate joining stories using manipulatives to help solve the problem
• Evaluate and interpret images that depict joining stories
Write numbers that correspond to the joining stories
Apply the concept of altogether to joining stories
Recognize and use the plus sign when reading and recording joining stories

Lesson 6: Finding Sums

Objectives:
• Identify and use the equal sign (=); add and write the sum

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Lesson 7: Addition Sentences

Objectives:
• Write and solve addition sentences to represent joining situations

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Lesson 8: Problem Solving: Draw a Picture (two-day lesson)

Objectives:
• Solve problems by drawing pictures about joining two groups

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Lesson 9: Understanding Addition Unit Test

Unit 9: Understanding Subtraction

The student will be exposed to subtraction in a developmentally appropriate manner using storytelling and manipulatives. She will understand that when you take away something from the larger group, a new, smaller group is formed, which is the number left. She will be introduced to the subtraction sign and the formal horizontal format of subtraction. The student will be asked to tell a subtraction story by pictorially representing the statement.

Objectives:
• Evaluate separating stories using manipulatives and images to help solve the problem
• Write and solve subtraction sentences that represent separating stories
• Recognize and use the minus sign when reading and recording separating stories
• Identify an equal sign and use it to reflect the difference of the separating of two groups
• Evaluate data by drawing pictures to solve the addition or subtraction problems

Lesson 1: Stories About Separating

Objectives:
• Act out number stories that involve separating two groups

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Lesson 2: Stories About Take Away

Objectives:
• Determine how many are left when some objects in a group are taken away

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Lesson 3: Stories About Comparing

Objectives:
• Compare two groups to find how many more or fewer

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Lesson 4: Using the Minus Sign

Objectives:
• Use the minus sign (−) to represent "take away" situations when recording subtraction

Lesson 5: Mid-Unit Review
Objectives:
• Interpret stories about separating to determine the number left
• Evaluate separating stories using manipulatives to help solve the problem
• Compare two groups of objects and determine which one is more and which one is fewer and by how much
• Recognize and use the minus sign when reading and recording separating stories

Lesson 6: Finding Differences
Objectives:
• Use the equal sign (=), subtract, and write the difference

Lesson 7: Subtraction Sentences
Objectives:
• Write and solve subtraction sentences to represent take-away situations

Lesson 8: Problem Solving: Use Objects (two-day lesson)
Objectives:
• Solve problems by choosing addition or subtraction

Lesson 9: Understanding Subtraction Unit Test
MATH K B
Math K B

In this course, mathematical thinking and problem solving are introduced. Students explore topics and apply mathematical practices outlined in the Common Core State Standards and other state standards. They learn how to identify numbers, write numbers zero to 20, and count to 100 by ones and tens. They also describe, sort, and compare objects and learn basic shapes. Stories and activities introduce addition and subtraction. A combination of interactive and hands-on exercises teaches students about money, time, fractions, and measurement.

Unit 1: Composing and Decomposing Numbers to 10

In this unit, your student will demonstrate his understanding of the rules of a number sentence by composing and decomposing numbers to 10. He will do this by showing that there is more than one way to show a number. Manipulatives and activities will be used to make the idea of number conservation concrete. The vocabulary words, whole and part, will be mastered during this unit. To put these words into practice, your student will demonstrate how to join parts in various ways to make a whole when showing addition. Finally, he will be able to explain the purpose of a graph and use information gathered in a graph to solidify his understanding of number conservation.

Objectives:
- Compose and decompose numbers 0 to 10
- Use objects to show numbers 4 to 10 in two parts
- Write number sentences that add up to numbers 4 to 10
- Construct a graph

Lesson 1: Making 4 and 5

Objectives:
- Use objects to show 4 and 5 in two parts

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Lesson 2: Writing Number Sentences for 4 and 5

Objectives:
- Write number sentences to describe the decomposition of 4 or 5 into two parts

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Lesson 3: Making 6 and 7

Objectives:
- Use objects to show 6 and 7 in two parts

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Lesson 4: Writing Number Sentences for 6 and 7

Objectives:
- Write number sentences to describe the decomposition of 6 or 7 into two parts

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Lesson 5: Mid-Unit Review

Objectives:
- Compose and decompose numbers 0 to 7
- Use objects to show numbers 4 to 7 in two parts
- Write number sentences that add up to numbers 4 to 7

Lesson 6: Making 8 and 9

Objectives:
- Use objects to show 8 and 9 in two parts
Lesson 7: Writing Number Sentences for 8 and 9

Objectives:
• Write number sentences that add up to 8 and 9

Lesson 8: Making 10

Objectives:
• Use objects to show 10 in two parts

Lesson 9: Writing Number Sentences for 10

Objectives:
• Write number sentences that show how two numbers can add to 10

Lesson 10: Problem Solving: Make a Graph

Objectives:
• Construct graphs using real objects or pictures to answer questions

Lesson 11: Composing and Decomposing Numbers to 10 Unit Test

Objectives:
• Compose and decompose numbers 0–10
• Use objects to show numbers 4–10 in two parts
• Write number sentences that add up to numbers 4–10
• Construct a graph

Unit 2: Composing Numbers 11 to 19

In this unit, your student will compose numbers from 10–19. She will be able to utilize her understanding of number conservation to create addition sentences where 11–19 can be represented by 10 and another addend. Furthermore, by exploring place value, your student will begin to build more concrete number sense for numbers in the teens. Finally, she will explore number patterns using the first two rows of the hundreds chart.

Objectives:
• Compose numbers 11–19
• Identify a number sentence whose parts match those in a picture
• Compose number sentences that correlate with pictures on a ten-frame
• Construct number sentences using 10 and some more

Lesson 1: Making 11, 12, and 13

Objectives:
• Represent 11, 12, and 13 as the composition of 10 plus 1, 2, or 3

Lesson 2: Making 14, 15, and 16

Objectives:
• Represent 14, 15, and 16 as the composition of 10 plus 4, 5, and 6

Lesson 3: Mid-Unit Review

Objectives:
• Represent numbers 11 to 16 as the composition of 10 plus a number
Lesson 4: Making 17, 18, and 19

Objectives:
• Represent 17, 18, and 19 as the composition of 10 plus 7, 8, and 9

Lesson 5: Look for a Pattern

Objectives:
• Use drawings and number sentences to identify patterns on the first two rows of the hundreds chart

Lesson 6: Review of Making 11-19

Objectives:
• Compose numbers between 11 and 19

Lesson 7: Composing Numbers 11–19 Unit Test

Unit 3: Decomposing Numbers 11 to 19

In this unit, your student will continue to show number conservation by creating numbers from 10–19 in a variety of ways. He will begin by making sets of numbers between 10 and 19 on a double ten-frame. Gradually your student will grow his number sense by decomposing numbers between 10 and 19. As your student becomes more familiar with the double ten-frame, he will be able to see a teen number as a set of 10 and another addend. To reinforce the concept of number decomposition, your student will use counters, number cards, and connecting cubes. Finally, patterns in the decomposition of teen numbers will be explored to solidify his understanding further.

Objectives:
• Use objects to create sets up to 19
• Write equations that represent the decomposition of 11 to 19 as a ten and some ones
• Solve problems by identifying repeating elements
• Identify patterns in the hundreds chart

Lesson 1: Creating Sets to 19

Objectives:
• Use objects to create sets to 19

Lesson 2: Parts of 11, 12, and 13

Objectives:
• Represent the decomposition of 11, 12, and 13 as ten ones and additional ones

Lesson 3: Parts of 14, 15, and 16

Objectives:
• Represent the decomposition of 14, 15, and 16 as one ten and four, five, or six ones

Lesson 4: Mid-Unit Review

Objectives:
• Create sets of objects to 19
• Represent the decomposition of 11 to 16 as ten ones and additional ones

Lesson 5: Parts of 17, 18, and 19
Lesson 6: Problem Solving: Look for a Pattern (two-day lesson)

Objectives:
- Identify patterns found in decomposing the teen numbers, including the constant of one ten and the variable number of ones
- Make drawings and write number sentences for numbers 11 to 19

Unit 4: Measurement

In this unit, your student will explore the measurements of length. Exploration will begin by having your student identify the measurable qualities of different objects. She will then explore length by using the words: shorter, shortest, longer, longest, and as long as. Your student will begin by comparing the length of two objects and move on to comparing three or more objects. She will continue the same process when exploring the measurement of height and correctly use the vocabulary words: taller, as tall as, and tallest. Overall, your student will make connections to her environment and understand that objects can be compared in a variety of ways using measurement. Finally, she will utilize the guess and check method to solve problems.

Objectives:
- Compare objects by length and height
- Problem solve by trying, checking, and revising
- Describe attributes of objects

Lesson 1: Describing Objects by More than One Attribute

Objectives:
- Recognize and describe the measurable attributes of objects

Lesson 2: Comparing by Length

Objectives:
- Directly compare objects by length

Lesson 3: More Comparing Objects by Length

Objectives:
- Compare and order objects by length

Lesson 4: Problem Solving: Try, Check, and Revise

Objectives:
- Solve problems by comparing lengths and revising their answers

Lesson 5: Mid-Unit Review

Objectives:
- Describe an object by its attributes
- Compare objects by their length

Lesson 6: Comparing by Height
Objectives:

- Compare objects by height

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Lesson 7: More Comparing Objects by Height

Objectives:

- Compare and order objects by height

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Lesson 8: Comparing Capacities

Objectives:

- Compare containers by their capacity

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Lesson 9: Comparing by Weight

Objectives:

- Compare objects by weight

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Lesson 10: Social Studies Project (two-day lesson)

Objectives:

- Evaluate the weight of objects

Lesson 11: Measurement Unit Test

Unit 5: Sort, Classify, Count, and Categorize Data

In this unit, your student will classify two- and three-dimensional objects according to their attributes. Your student will begin by comparing objects according to characteristics that are the same and different. He will first demonstrate how to sort objects according to one distinct characteristic, such as color, and then sort the same set of objects according to a different attribute, such as size. Next, your student will explore sorting by categorizing a set of objects by color and size. In order to solidify his learning, he will perform an activity using the sorting rule. Finally, your student will use real graphs and picture graphs to record data that he sorts.

Objectives:

- Sort objects based on their attributes
- Sort a variety of objects, including two- and three-dimensional geometric figures, according to their attributes
- Describe how objects are sorted; interpret graphs of real objects and pictures
- Construct a picture graph

Lesson 1: Same and Different

Objectives:

- Identify same and different by the attributes of color, shape, size, and kind

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Lesson 2: Sorting by One Attribute

Objectives:

- Sort objects by one attribute such as color, shape, size, or kind

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Lesson 3: Sorting the Same Set in Different Ways

Objectives:

- Sort the same set in different ways
Lesson 4: Mid-Unit Review
Objectives:
• Sort objects based on their attributes

Lesson 5: Sorting by More than One Attribute
Objectives:
• Use more than one attribute to sort a set of objects

Lesson 6: Problem Solving: Use Logical Reasoning
Objectives:
• Solve problems by thinking logically

Lesson 7: Real Graphs
Objectives:
• Make and read a real graph

Lesson 8: Picture Graphs (two-day lesson)
Objectives:
• Make and read a picture graph

Lesson 9: Sort, Classify, Count, and Categorize Data Test

Unit 6: Identifying and Describing Shapes
In this unit, your student will begin to build a foundation of geometric concepts and spatial relations. Your student will learn about the specific attributes of the rectangle, square, circle, triangle, and hexagon. She will be able to identify these shapes in her environment, as well as in written activities.
Objectives:
• Correctly name shapes regardless of their orientation or overall size

Lesson 1: Rectangles
Objectives:
• Identify and describe rectangles

Lesson 2: Squares
Objectives:
• Identify and describe squares

Lesson 3: Circles
Objectives:
• Identify and describe circles

Lesson 4: Triangles
Objectives:
- Identify and describe triangles

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Lesson 5: Hexagons 🍧

Objectives:
- Identify and describe hexagons

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Lesson 6: Mid-Unit Review

Objectives:
- Correctly name shapes regardless of their orientation or overall size

Lesson 7: Solid Figures 🎉

Objectives:
- Identify cubes, cones, cylinders, and spheres and relate them to real-life objects

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Lesson 8: Flat Surfaces of Solid Figures

Objectives:
- Identify three-dimensional figures and describe the shape of flat surfaces

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Lesson 9: Problem Solving: Use Objects 🍭

Objectives:
- Solve problems by using objects

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Lesson 10: Math Project: Art (three-day lesson) 🎨

Objectives:
- Examine the attributes of real-world objects
- Identify and describe rectangles, squares, circles, triangles, and hexagons
- Use rectangles, squares, circles, triangles, and hexagons to create a model of a real-world object
- Describe measurable attributes of objects, such as length or height
- Sort a set of objects based on their attributes

Lesson 11: Identifying and Describing Shapes Unit Test 🎉

Unit 7: Position and Location of Shapes

In this unit, your student will explore the topical characteristics of shapes and continue to build his spatial sense which will aid him in identifying specific shapes. He will be able to identify objects according to the specific attributes of inside, outside, above, below, on, in front of, behind, next to, beside, left, and right. Finally, your student will use tactile manipulatives to physically show spatial understanding.

Objectives:
- Describe one object in relation to another

Lesson 1: Inside and Outside 🍭

Objectives:
- Describe an object as inside or outside a given place

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Lesson 2: Above, Below, and On

Objectives:
- Describe an object as above, below, or on another object

Lesson 3: Mid-Unit Review

Objectives:
- Describe one object in relation to another

Lesson 4: In Front of and Behind

Objectives:
- Describe an object as in front of or behind, next to or beside a given object

Lesson 5: Left and Right

Objectives:
- Describe an object as left or right of a given object

Lesson 6: Position and Location of Shapes Unit Test

Unit 8: Geometry

In this unit, your student will continue to explore three-dimensional or solid figures. She will further investigate the attributes of three-dimensional figures in order to solidify each shape's name and characteristics. Both real-world examples and thoughtful questions will reinforce these essential concepts. Congruency will be introduced and your student will be able to identify objects that are the same size and shape. More abstract concepts will also be explored. Your student will be able to create new shapes by combining other shapes. To reinforce her understanding of spatial relations, your student will act as a detective and identify two- and three-dimensional shapes when given clues.

Objectives:
- Analyze and compare two- and three-dimensional shapes
- Model shapes in the world using components or drawings
- Compose simple shapes to form larger shapes
- Examine the attributes of real-world objects

Lesson 1: Same Size, Same Shape

Objectives:
- Identify and draw figures that are the same size and the same shape

Lesson 2: Making Shapes from Other Shapes

Objectives:
- Recognize that shapes can be combined to make other shapes

Lesson 3: Comparing Solid Figures

Objectives:
- Identify solid figures that roll, stack, and/or slide on a flat surface

Lesson 4: Mid-Unit Review

Objectives:
• Identify similarity in objects and use similar shapes to make other shapes
• Describe how a solid figure can move across a flat surface

Lesson 5: Building with Solid Figures
Objectives:
• Make shapes by combining two solid figures

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Lesson 6: Problem Solving: Use Logical Reasoning
Objectives:
• Use logical reasoning to solve problems

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Lesson 7: Real-World Objects (two-day lesson)
Objectives:
• Examine the attributes of real-world objects

Lesson 8: Geometry Unit Test
Math 1 A

In Math 1 A, the student will learn mathematical concepts that are organized according to the following categories: number and operations, algebra, and geometry. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student's development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, *enVisionMATH*, is the primary resource for this course.

The student will study number concepts, including reading and writing whole numbers from 0 through 12, and investigate the concepts of addition and subtraction through patterns and relationships. Numbers and patterns will also be connected to geometry as the student explores attributes of solids and shapes. Finally, the student will extend his understanding of number concepts to include numbers though 100.

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The answer key document for *enVisionMATH Lessons* is located in the Virtual Library in the Answer Keys section and is not included as a resource in the Course Guide. You can access the Answer Keys in the Virtual Library: Home > Curriculum and Instruction > Answer Keys.

Unit 1: Let’s Learn Math!

In this unit, your student will learn about the activities she will do in math class. The first lesson, intended for Learning Coaches, provides advice for using the Lesson Guide to support your student, and details the resources found in the course. It also offers helpful tips for building your student’s math skills. The second lesson is intended for students and their Learning Coaches. This lesson will introduce your student to the concept of math, and describe the structure of math lessons.

Objectives:
- Understand how to find and use the Coaching Guide
- Locate and describe lesson resources
- Identify ways to promote mathematical thinking in your daily life
- Describe the different parts of a lesson
- Describe the different types of assessments

Lesson 1: Learning Coach: Support Your Student in Math

Lesson 2: Welcome to Math 1!

Objectives:
- Locate and describe lesson resources
- Describe the different parts of a lesson
- Describe the different types of assessments

Unit 2: Numbers to 12

In this unit, your student will practice reading and writing numbers from 0 to 12. Your student will associate concrete objects with numerals in order to tell how many objects are in a set, and he will recognize dot patterns as the representation of a number. This unit serves as a base for the further development of your student’s ability to denote addition and subtraction number relationships. Your student will build upon numbers in the five- and 10-frame counting systems. This unit’s problem-solving strategy is “use objects.”

Objectives:
- Read and write numbers to 12
- Recognize patterned arrangements of numbers without counting
- Recognize two-part spatial patterns of numbers
- Use objects to act out the actions in problems

Lesson 1: 0 to 5

Objectives:
• Read and write numbers to 5

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Lesson 2: 6 to 10

Objectives:
• Read and write numbers from 6 through 10

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Lesson 3: 10, 11, and 12

Objectives:
• Read and write numbers to 12

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Lesson 4: Spatial Patterns for Numbers to 9

Objectives:
• Recognize patterned arrangements of numbers without counting

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Lesson 5: Spatial Patterns for Numbers to 10

Objectives:
• Recognize two-part spatial patterns of numbers

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Lesson 6: Use Objects

Objectives:
• Use objects to act out the actions in problems

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Lesson 7: Unit Review

Lesson 8: Unit Test

Unit 3: Comparing and Ordering Numbers

This unit reinforces numerical relationships through comparing and ordering numbers. Your student will determine the order of numbers from concrete examples using the terms least, between, and greatest. Employing the help of visual models, your student will place numbers in the correct order and determine their respective values on a number line. This unit’s problem-solving strategy is “act it out.”

Objectives:
• Compare and order numbers through 12
• Order numbers to 12 using a number line
• Use objects to act out ordering numbers to solve story problems

Lesson 1: Comparing Two Numbers

Objectives:
• Compare two numbers 1 through 12

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Lesson 2: Ordering Three Numbers

Objectives:
• Compare and order three numbers through 12

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Lesson 3: Ordering Numbers to 12 with a Number Line

Objectives:
- Order numbers to 12 using a number line

Lesson 4: Act It Out

Objectives:
- Use objects to act out ordering numbers to solve story problems

Lesson 5: Unit Review

Lesson 6: Unit Test

Unit 4: Understanding Addition

In this unit, your student will use number relationships to develop an understanding of basic addition principles. Your student will explore strategies for adding two numbers, including joining stories and part-part-whole situations. Your student will also become familiar with addition terminology associated with writing addition number sentences. This unit's problem-solving strategy is "use objects."

Objectives:
- Recognize parts of a number as a strategy for addition
- Write addition number sentences to solve part-part-whole and joining stories
- Explore the commutative property of addition
- Use objects to solve story problems

Lesson 1: Making 6 and 7

Objectives:
- Recognize parts of a number as a strategy for addition

Lesson 2: Making 8

Objectives:
- Recognize parts of the number 8

Lesson 3: Making 9

Objectives:
- Recognize parts of the number 9

Lesson 4: Addition Expressions and Number Sentences

Objectives:
- Write addition expressions and number sentences to find the whole, given two parts

Lesson 5: Stories About Joining

Objectives:
- Write addition sentences to solve stories about joining

Lesson 6: Adding in Any Order
Objectives:
• Learn to add in any order

Lesson 7: Use Objects (two-day lesson)

Objectives:
• Use objects to solve story problems

Lesson 8: Unit Review

Lesson 9: Unit Test

Unit 5: Understanding Subtraction

This unit is dedicated to your student’s understanding of the ideas behind subtraction. Your student will find the missing parts of the numbers 7, 8, and 9, and then will transfer this skill into identifying the need to subtract in separation and comparison stories. Connecting subtraction and addition facts will help your student uncover the relationship between these two operations and enrich her knowledge of number sentences involving each of the operations. This unit’s problem-solving strategy is “use objects.”

Objectives:
• Solve problems by finding the missing part
• Write and solve subtraction number sentences
• Use subtraction to answer stories about separating and comparing
• Write related addition and subtraction facts
• Use counters to act out and solve subtraction story problems

Lesson 1: Finding Missing Parts of 6 and 7

Objectives:
• Solve problems by finding the missing part

Lesson 2: Finding Missing Parts of 8

Objectives:
• Find a missing part of 8 when one part is known

Lesson 3: Finding Missing Parts of 9

Objectives:
• Use subtraction to find the missing part of 9 when one part is known

Lesson 4: Subtraction Expressions and Number Sentences

Objectives:
• Write and solve subtraction number sentences.

Lesson 5: Stories About Separating

Objectives:
• Tell and act out stories about separating to find how many are left

Lesson 6: Stories About Comparing

Objectives:
Lesson 7: Connecting Addition and Subtraction

Objectives:
• Write related addition and subtraction facts

Lesson 8: Connecting Models and Symbols

Objectives:
• Write and identify different subtraction sentences that are true for the same model

Lesson 9: Use Objects

Objectives:
• Use counters to act out and solve subtraction story problems

Lesson 10: Unit Review

Lesson 11: Unit Test

Unit 6: Five and Ten Relationships

This unit develops your student’s understanding of numbers in a base-ten numeration system by using five and 10 as points of reference. Within a 10-frame structure, your student will represent numbers through 10 and identify the “missing part” in part-part-whole relationships. The ability to recognize numbers using this organizational pattern builds a foundation that will help your student move from counting to mental math as a strategy to performing addition and subtraction operations. This unit’s problem-solving strategy is “make a table.”

Objectives:
• Recognize numbers shown on a ten-frame
• Represent 10 in two parts
• Use counters and a part-part-whole model to find missing parts of 10
• Make tables to solve problems

Lesson 1: Representing Numbers on a Ten-Frame

Objectives:
• Use counters and a ten-frame to model numbers up to 10

Lesson 2: Recognizing Numbers on a Ten-Frame

Objectives:
• Learn to recognize numbers on a ten-frame, noting the relationship of those numbers to 5 and 10

Lesson 3: Parts of 10

Objectives:
• Show 10 as two parts

Lesson 4: Finding Missing Parts of 10

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Lesson 5: Make a Table

Objectives:
- Make tables to solve problems

Lesson 6: Unit Review

Lesson 7: Unit Test

Unit 7: Addition Facts to 12

In this unit, your student will continue to explore addition relationships between numbers through 12 with ten-frames and breaking a sum into its parts. Your student will be introduced to near doubles and doubles facts, a strategy for remembering sums, so that your student will associate mathematical logic with real-world situations and commit addition facts to memory. This unit’s problem-solving strategy is “draw a picture and write a number sentence.”

Objectives:
- Add by counting on and with doubles and near doubles facts
- Use ten-frames to model addition facts with 5 and 10
- Draw pictures to solve addition story problems

Lesson 1: Adding with 0, 1, 2

Objectives:
- Count on to add, starting with the greater number

Lesson 2: Doubles

Objectives:
- Recognize doubles as a strategy for remembering sums

Lesson 3: Near Doubles

Objectives:
- Use doubles facts to learn near doubles facts

Lesson 4: Facts with 5 on a Ten-Frame

Objectives:
- Use a ten-frame to write addition facts with 5

Lesson 5: Making 10 on a Ten-Frame

Objectives:
- Use two ten-frames to model addition facts

Lesson 6: Draw a Picture and Write a Number Sentence

Objectives:
- Draw pictures to solve addition story problems
Lesson 7: Unit Review

Lesson 8: Unit Test

Unit 8: Subtraction Facts to 12

This unit reinforces the inverse relationship between addition and subtraction. Your student will become more comfortable recalling basic subtraction facts. Using prior knowledge of addition and double facts, your student will develop different approaches to solving subtraction sentences. He will learn to mentally compute the differences between two numbers through recognition rather than counting. This unit’s problem-solving strategy is “draw a picture and write a number sentence.”

Objectives:
- Master concepts of 0 less than, 1 less than, and 2 less than when subtracting 0, 1, and 2
- Connect addition facts with corresponding subtraction facts
- Draw a picture and write a number sentence to solve subtraction story problems

Lesson 1: Subtracting with 0, 1, 2

Objectives:
- Master concepts of 0 less than, 1 less than, and 2 less than when subtracting 0, 1, or 2

Lesson 2: Thinking Addition

Objectives:
- Use doubles addition facts to master related subtraction facts

Lesson 3: Thinking Addition to 8 to Subtract

Objectives:
- Understand how addition facts to 8 relate to subtraction facts to 8

Lesson 4: Thinking Addition to 12 to Subtract

Objectives:
- Write related addition and subtraction facts to 12

Lesson 5: Draw a Picture and Write a Number Sentence

Objectives:
- Draw a picture and write a number sentence to solve subtraction story problems

Lesson 6: Unit Review

Lesson 7: Unit Test

Unit 9: Geometry

Your student will examine the similarities and differences between plane shapes and solid figures. Through relating plane and solid shapes to real-world representations, your student will develop a clearer understanding of geometry and its presence in the world. This unit introduces and explores combining and breaking apart shapes to make new shapes and
identifying the attributes of geometric solids. This unit’s problem-solving strategy is “make an organized list.”

Objectives:
- Sort and identify plane shapes and compare them to everyday objects
- Combine and break apart shapes to make new geometric shapes
- Make organized lists to solve problems
- Identify the attributes of geometric solids

**Lesson 1: Identifying Plane Shapes**

Objectives:
- Identify and name standard plane shapes and recognize them in the environment

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**Lesson 2: Properties of Plane Shapes**

Objectives:
- Sort plane shapes and identify their properties

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**Lesson 3: Building with Shapes**

Objectives:
- Combine plane shapes to make different pictures

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**Lesson 4: Making New Shapes from Shapes**

Objectives:
- Combine two-dimensional geometric shapes to make new two-dimensional geometric shapes

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**Lesson 5: Breaking Apart Shapes to Make Shapes**

Objectives:
- Break apart large shapes to make smaller shapes

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**Lesson 6: Congruence**

Objectives:
- Identify plane shapes that are the same size and the same shape

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**Lesson 7: Symmetry**

Objectives:
- Understand that a shape shows symmetry if it can be folded into two matching parts

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**Lesson 8: Make an Organized List (two-day lesson)**

Objectives:
- Make organized lists to solve problems

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**Lesson 9: Identifying Solid Figures**

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Lesson 10: Building with Solid Figures

Objectives:
- Combine solid figures to make new solid figures

Lesson 11: Flat Surfaces and Corners

Objectives:
- Count the number of flat surfaces and vertices on geometric solids

Lesson 12: Sorting Solid Figures

Objectives:
- Identify geometric solids (sphere, cone, cylinder, rectangular prism, and cube), and sort by various attributes

Lesson 13: Unit Review

Lesson 14: Unit Test

Unit 10: Counting and Number Patterns to 100

This unit is dedicated to reinforcing the recognition of patterns within our numerical system. Your student will develop strategies to identify repetition and visually represent number patterns through 100. The introduction of skip counting will allow your student to build upon groups of 10 and discern the significance of place-value. This unit’s problem-solving strategy is “look for a pattern.”

Objectives:
- Use counters to demonstrate relationships among numbers 11 through 20
- Find number patterns and visual patterns on a hundred chart by skip counting with 2s, 5s, and 10s
- Use counters to determine whether a number is odd or even

Lesson 1: Making Numbers 11 to 20

Objectives:
- Read, count, and write numbers 11 to 20

Lesson 2: Using Numbers 11 to 20

Objectives:
- Show numbers 11 to 20 as 1 or 2 more or fewer than another number

Lesson 3: Counting by 10s to 100

Objectives:
- Count groups of 10, up to 10 tens, and write how many

Lesson 4: Counting Patterns on a Hundred Chart

Objectives:
• Find and extend skip-counting patterns on a hundred chart

**Lesson 5: Using Skip Counting**

Objectives:

- Skip count to find the total number of items arranged in sets of 10s, 5s, and 2s

**Lesson 6: Odd and Even Numbers**

Objectives:

- Identify numbers as odd or even

**Lesson 7: Patterns in Tables**

Objectives:

- Solve problems by finding patterns in a table of related number pairs

**Lesson 8: Unit Review**

**Lesson 9: Unit Test**
MATH 1 B
Math 1 B

In Math 1 B, the student will continue to expand his understanding of mathematical concepts, which are organized according to the following categories: number and operations, algebra, measurement, and data analysis. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student’s development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, *enVisionMATH*, is the primary resource for this course.

The student will continue to study number concepts, such as comparing and ordering whole numbers through 100, as well as continue to add and subtract whole numbers through 18. Next, the student will extend his understanding of number concepts by counting money and will engage in hands-on learning of measurement by finding length, capacity, weight, mass, time, and temperature using the appropriate tools and units. The student will connect numbers to statistics as he learns to gather data, display data in graphs, and interpret the information. The student will expand his knowledge of fractions by learning that they are equal parts of an object. Finally, the student will extend his understanding of operations to include the addition and subtraction of two-digit whole numbers.

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The answer key document for *enVisionMATH Lessons* is located in the Virtual Library in the Answer Keys section and is not included as a resource in the Course Guide. You can access the Answer Keys in the Virtual Library: Home > Curriculum and Instruction > Answer Keys.

**Unit 1: Tens and Ones**

In this unit, your student continues to explore the concept of grouping by tens. He will notice the efficiency of a base-ten numerical system, as well as express a set of objects as multiple groups of ten and leftovers. Your student will connect visual representations with both written and spoken numbers. This unit’s problem-solving strategy is “make an organized list.”

Objectives:
- Count, read, and write two-digit numbers as groups of ten and leftovers
- Model a two-digit number and write its expanded form
- Break apart tens and ones to represent the same number in different ways
- Make an organized list to track solutions to a problem

**Lesson 1: Counting with Groups of 10 and Leftovers**

Objectives:
- Read and write two-digit numbers as groups of 10 and some left over

**Lesson 2: Numbers Made with Tens**

Objectives:
- Count groups of 10, up to 10 tens, and write how many

**Lesson 3: Tens and Ones/Expanded Form**

Objectives:
- Use groups of tens and ones to show and write a given two-digit number
- Model a two-digit number and write its expanded form

**Lesson 4: Ways to Make Numbers**

Objectives:
Lesson 5: Make an Organized List

Objectives:
- Solve problems by making a list to show different ways to make a number

Lesson 6: Unit Review

Lesson 7: Tens and Ones Unit Test

Unit 2: Comparing and Ordering Numbers to 100

By emphasizing comparisons, this unit enhances your student’s knowledge of numerical order. The introduction of mathematical symbols, less than, greater than, and equal to, coupled with visual examples helps your student comprehend the quantitative significance of numbers. Estimating place on a number line reinforces ideas of the order and relative size of multiple numbers in relationship to each other.

Objectives:
- Use a hundred chart to show more than and less than relationships
- Compare two-digit numbers using models and identify missing numbers using parts of a hundred chart
- Estimate positions of numbers on a number line
- Identify numbers that come before or after a given number and order numbers from least to greatest

Lesson 1: 1 More, 1 Less/Making Numbers on a Hundred Chart

Objectives:
- Write the numbers that are 1 more or 1 less and 10 more or 10 less than a two-digit number
- Use a hundred chart to show the relationships of 1 more than, 1 less than, 10 more than, and 10 less than a given number

Lesson 2: Comparing Numbers with <, >, =

Objectives:
- Compare two-digit numbers using models

Lesson 3: Ordering Numbers with a Hundred Chart

Objectives:
- Find missing numbers on a hundred chart

Lesson 4: Number Line Estimation

Objectives:
- Estimate the positions of numbers on a number line marked only in multiples of 10

Lesson 5: Before, After, and Between

Objectives:
- Use the words before, after, and between to order numbers up to 99
Lesson 6: Ordering Three Numbers

Objectives:
• Order numbers from least to greatest, given 3 two-digit numbers

Lesson 7: Unit Review

Lesson 8: Comparing and Ordering Numbers to 100 Unit Test

Unit 3: Counting Money

Your student identifies, compares, and skip-counts to classify and organize money in this unit. Assigning a value to each different coin allows for comparison; and through manipulating the coins to express varying amounts, the unit provides an opportunity to associate our monetary number system with real-life experiences. In addition to learning multiple ways to express a given amount, your student judges which coins are necessary to make certain purchases. This unit’s problem-solving strategy is “try, check, and revise.”

Objectives:
• Identify the value of pennies, nickels, and dimes
• Identify quarters, half dollars, and dollars and groups of coins that have the same value
• Use skip counting to find the value of collections of coins
• Solve problems by using the try, check, and revise strategy

Lesson 1: Values of Penny and Nickel

Objectives:
• Identify the value of combinations of nickels and pennies

Lesson 2: Values of Penny, Nickel, and Dime

Objectives:
• Identify the value of combinations of dimes, nickels, and pennies

Lesson 3: Value of Quarter

Objectives:
• Identify a quarter and find groups of coins that have the same value as a quarter

Lesson 4: Values of Half Dollar and Dollar

Objectives:
• Learn to identify half dollars and dollars and learn their values

Lesson 5: Counting Sets of Coins

Objectives:
• Count collections of coins that include half dollars, quarters, dimes, nickels, and pennies

Lesson 6: Try, Check, and Revise
Lesson 7: Unit Review

Lesson 8: Counting Money Unit Test

Unit 4: Measurement

This unit expands your student’s knowledge of measurement concepts. Your student uses estimated measurement and exact measurement to compare and order the lengths of everyday objects. Standard units for length, feet and inches, and the metric unit, centimeter, are introduced. The idea of magnitude is reinforced as your student is asked to choose appropriate units for measuring objects of varying sizes. Your student will also estimate and compare the temperature of different objects. This unit’s problem-solving strategy is “use reasoning.”

Objectives:
• Compare and order objects by length
• Use nonstandard units to estimate, measure and compare the lengths of objects
• Estimate, measure, and compare the lengths of objects using nonstandard and standard units
• Estimate and compare the temperature of different objects
• Use reasoning to measure objects

Lesson 1: Comparing and Ordering by Length

Objectives:
• Compare and order lengths of objects

Lesson 2: Indirect Measurement

Objectives:
• Indirectly compare objects by length

Lesson 3: Units to Estimate and Measure Length

Objectives:
• Estimate, measure, and compare lengths of objects by using a nonstandard unit
• Use nonstandard units to measure the length of different objects

Lesson 4: More Measuring Length

Objectives:
• Use connecting cubes as nonstandard units to measure and compare the lengths and heights of objects

Lesson 5: Use Reasoning

Lesson 6: Feet and Inches

Objectives:
• Estimate and measure the lengths of objects in inches and feet using a ruler

Lesson 7: Centimeters
Objectives:
- Estimate and measure the length of objects in centimeters using a ruler

Lesson 8: Comparing and Ordering by Temperature

Objectives:
- Estimate and compare the temperature of different objects

Lesson 9: Unit Review

Lesson 10: Measurement Unit Test

Unit 5: Time

In this unit, your student explores the measurement of time. This includes telling time to the hour and to the half hour. He also learns how to represent time on both digital and analog clocks. While our system for measuring time is more arbitrarily based than our base-ten numeration system, it is important that your student understands the fundamental units of time and the comparative significance of each. This unit’s problem-solving strategy is “use data from a table.”

Objectives:
- Tell and write time to the hour and half hour using digital and analog clocks
- Read and use a table
- Read and use a calendar
- Create a schedule showing times and activities

Lesson 1: Understand Hour & Minute Hands/Time to the Hour

Objectives:
- Identify the hour and minute hands on a clock and tell time to the hour
- Tell and write time to the hour using digital and analog clocks

Lesson 2: Telling and Writing Time to the Half Hour

Objectives:
- Show and tell time to the half hour

Lesson 3: Using the Calendar

Objectives:
- Read and use a calendar

Lesson 4: Use Data from a Table

Objectives:
- Read and use a schedule

Lesson 5: Unit Review

Lesson 6: Time Unit Test

Unit 6: Addition Facts to 18

This unit encompasses all possible addend combinations for which the sum is 18. Building upon your student’s prior knowledge of doubles facts, this unit uses doubles-plus-1 and doubles-plus-2 strategies to solve addition sentences. Your student also makes use of her
base-ten knowledge to add by making groups of ten in order to add 9 and 8. The unit sets a foundation for the later development of arithmetic principles by introducing the idea that a set of numbers can be added in any order. This unit’s problem-solving strategy is “two-question problems.”

Objectives:
- Recognize the doubles number relationships and use it as a strategy for remembering addition facts
- Solve two-question problems by using the answer to the first question to answer the second question
- Use counters and ten-frames to make 10 as a strategy for adding 9 and 8
- Use the associative and commutative properties to add three numbers

Lesson 1: Doubles

Objectives:
- Recognize the doubles relationship and use it as a strategy for remembering addition facts

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Lesson 2: Doubles Plus 1

Objectives:
- Master addition facts where the addends are 1 apart

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Lesson 3: Doubles Plus 2

Objectives:
- Master addition facts where the addends are 2 apart

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Lesson 4: Two-Question Problems

Objectives:
- Solve two-question problems by using the answer to the first question to answer the second question

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Lesson 5: Making 10 to Add 9

Objectives:
- Master addition facts where one addend is 9

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Lesson 6: Making 10 to Add 8

Objectives:
- Master addition facts where one addend is 8

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Lesson 7: Adding Three Numbers

Objectives:
- Use the Associative and Commutative Properties to add three numbers

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Lesson 8: Word Problems with Three Addends

Objectives:
- Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20
Lesson 9: Unit Review

Lesson 10: Addition Facts to 18 Unit Test

Unit 7: Subtraction Facts to 18

Your student revisits work with subtraction facts in this unit. Throughout the unit, he continues to explore the inverse relationship between addition and subtraction by using visual part-part-whole representations of equations. Your student also identifies corresponding addition and subtraction facts as fact families, which helps in the mastery of both operations. This unit’s problem-solving strategy is “draw a picture and write a number sentence.”

Objectives:
- Use counters and part-part-whole models to show and write related addition and subtraction facts
- Use a related addition fact to find the missing part in a subtraction problem
- Draw pictures and write number sentences to solve addition and subtraction story problems

Lesson 1: Using Related Facts

Objectives:
- Find subtraction facts to 18 and learn the relationship between addition and subtraction

Lesson 2: Fact Families

Objectives:
- Use a part-part-whole model to find the subtraction facts and addition facts in a fact family

Lesson 3: Using Addition to Subtract/Subtraction Facts

Objectives:
- Use a related addition fact to find the missing part in a subtraction problem
- Use related addition facts to solve subtraction problems

Lesson 4: Draw a Picture and Write a Number Sentence

Objectives:
- Draw pictures and write number sentences to solve addition and subtraction story problems

Lesson 5: Unit Review

Lesson 6: Subtraction Facts to 18 Unit Test

Unit 8: Data and Graphs

In this unit, your student learns the most effective ways to collect, categorize, and display data. Differentiating between real-object graphs, picture graphs, and bar graphs depends on the amount and type of data being collected. Graphs provide a useful way to organize and present information in real-life situations. Additionally, this unit investigates the likelihood of events as expressed through probability. This unit’s problem-solving strategy is “make a graph.”

Objectives:
• Use information from bar graphs and picture graphs to answer questions and draw conclusions
• Describe the location of an object shown on a grid
• Collect a set of data and organize it in a real graph
• Use data in a table to complete a graph
• Describe the probability that an event will occur

Lesson 1: Using Data from Real Graphs
Objectives:
• Use a real-object graph to answer questions and draw conclusions

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Lesson 2: Using Data from Picture Graphs
Objectives:
• Use a picture graph to answer questions and draw conclusions

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Lesson 3: Using Data from Bar Graphs
Objectives:
• Use a bar graph to answer questions and draw conclusions

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Lesson 4: Location on a Grid
Objectives:
• Describe the location of an object shown on a grid

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Lesson 5: Collecting Data/Making Real Graphs
Objectives:
• Record data using tally marks
• Collect a set of data and organize it in a real graph

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Lesson 6: Making Picture Graphs
Objectives:
• Organize and analyze data using a picture graph

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Lesson 7: Make a Graph
Objectives:
• Use data in a table to complete a bar graph

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Lesson 8: Certain or Impossible
Objectives:
• Describe the likelihood of an event as certain or impossible

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Lesson 9: Likely or Unlikely
Objectives:
• Describe the likelihood of an event as likely or unlikely

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Lesson 10: Unit Review

Lesson 11: Data and Graphs Unit Test

Unit 9: Fractional Parts
In this unit, your student expands his knowledge of fractions as parts of a whole. Your student identifies and describes equal parts of an object, and learns to equate them to real-life situations. The concepts your student masters in this unit serve as a foundation for furthering knowledge of fractional parts. This unit’s problem-solving strategy is “draw a picture.”

Objectives:
- Describe equal parts of a shape
- Identify and show specified parts of a set
- Draw pictures to solve problems related to parts of a group

Lesson 1: Making Equal Parts

Objectives:
- Determine whether a shape is divided into equal or unequal parts

Lesson 2: Describing Equal Parts of Whole Objects

Objectives:
- Describe equal parts of a shape

Lesson 3: Making Halves and Fourths

Objectives:
- Identify halves and fourths of circles and rectangles

Lesson 4: Making Parts of a Set

Objectives:
- Show parts of a set

Lesson 5: Describing Parts of Sets

Objectives:
- Describe parts of a set

Lesson 6: Draw a Picture

Objectives:
- Draw pictures to solve problems related to parts of a group

Lesson 7: Unit Review

Lesson 8: Fractional Parts Unit Test

Unit 10: Adding and Subtracting with Tens and Ones
This unit provides your student with the opportunity to continue working with tens and ones while adding and subtracting. With help from visual representations and the reinforcement of addition and subtraction strategies, your student will develop a greater understanding of place value with multi-digit numbers. This unit encourages your student to experiment with different approaches to a problem, which include counting cubes as a tens and ones model,
using a hundred chart, and implementing a mental math addition or subtraction strategy. This unit’s problem-solving strategy is “extra information.”

Objectives:
- Add multiples of 10 to two-digit numbers
- Add one-digit numbers to two-digit numbers with and without regrouping
- Subtract multiples of 10 from two-digit numbers
- Subtract one-digit numbers from two-digit numbers with and without regrouping
- Solve problems by identifying unnecessary information and writing number sentences

Lesson 1: Adding Groups of 10

Objectives:
- Add two multiples of 10 for sums to 100

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Lesson 2: Adding Tens on a Hundred Chart/Two-Digit Numbers

Objectives:
- Use a hundred chart to add multiples of 10 to two-digit numbers
- Add a multiple of 10 to a two-digit number

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Lesson 3: Using Mental Math to Add Tens

Objectives:
- Add two-digit numbers and multiples of ten mentally.

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Lesson 4: Adding to a Two-Digit Number

Objectives:
- Add one-digit numbers to two-digit numbers with and without regrouping and record the sum in horizontal form

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Lesson 5: Subtracting Groups of 10

Objectives:
- Subtract 10 from multiples of 10 in the range 10-90.

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Lesson 6: Subtracting on a Hundred Chart/Two-Digit Numbers

Objectives:
- Use a hundred chart to subtract multiples of 10 from two-digit numbers
- Subtract a multiple of 10 from a two-digit number

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Lesson 7: Using Mental Math to Subtract Tens

Objectives:
- Subtract multiples of 10 from two-digit numbers using mental math.

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Lesson 8: Subtracting from a Two-Digit Number

Objectives:
- Subtract one-digit numbers from two-digit numbers with and without regrouping and record the difference in horizontal form

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Lesson 9: Extra Information

Objectives:
- Solve problems by identifying unnecessary information and writing number sentences

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Lesson 10: Unit Review

Lesson 11: Adding and Subtracting with Tens & Ones Unit Test
MATH 2 A
Math 2 A

In Math 2 A, the student will learn mathematical concepts that are organized under the categories of number and operations and algebra. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student’s development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, enVisionMATH, is the primary resource for this course.

The student will study number concepts, including investigating place value with whole numbers up to 100. The student will solidify his understanding of the concepts of addition and subtraction as inverse properties through the use of patterns and relationships, various mental mathematics strategies, and concepts involving money.

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Unit 1: Let’s Learn Math!

In this unit, your student will learn about the activities she will do in math class. The first lesson, intended for Learning Coaches, provides advice for using the Lesson Guide to support your student, and details the resources found in the course. It also offers helpful tips for building your student's math skills. The second lesson is intended for students and their Learning Coaches. This lesson will introduce your student to the concept of math, and describe the structure of math lessons.

Objectives:
- Understand how to find and use the Coaching Guide
- Locate and describe lesson resources
- Identify ways to promote mathematical thinking in your daily life
- Describe the different parts of a lesson
- Describe the different types of assessments

Lesson 1: Learning Coach: Support Your Student in Math

Lesson 2: Welcome to Math 2!

Objectives:
- Locate and describe lesson resources
- Describe the different parts of a lesson
- Describe the different types of assessments

Unit 2: Addition Strategies

Addition facts, strategies, and properties are reinforced in this unit. Your student will practice using different techniques to commit facts to memory. This makes mental math increasingly easier as your student will be able to quickly answer addition sentences. Your student will develop associations between fact families, such as understanding that addends can be combined in any order, as well as find the sum of multiple numbers.

Objectives:
- Write addition sentences involving 0, 1, or 2
- Write addition facts in which both addends are the same or one apart
- Use the commutative property to find sums
- Find sums by making 10 when adding 9 and 8

Lesson 1: Adding 0, 1, 2

Objectives:
- Master addition facts involving 0, 1, and 2

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Lesson 2: Doubles

Objectives:
- Master addition facts in which both addends are the same

Lesson 3: Near Doubles

Objectives:
- Master addition facts where the addends are 1 apart

Lesson 4: Adding in Any Order

Objectives:
- Use the commutative property to find sums

Lesson 5: Adding Three Numbers

Objectives:
- Find the sum of three addends using any order

Lesson 6: Making 10 to Add 9

Objectives:
- Find sums by making 10 when adding 9

Lesson 7: Making 10 to Add 8

Objectives:
- Find sums by making 10 when adding 8

Lesson 8: Unit Review

Objectives:
- Review unit concepts

Lesson 9: Unit Test

Unit 3: Subtraction Strategies

Your student will expand his knowledge of addition facts in order to create, understand, and solve subtraction sentences. Building on the inverse relationship of addition and subtraction, your student will use strategies to help him memorize basic subtraction facts and identify fact families involving both operations. The visual representation of a problem will help your student comprehend the missing part in a subtraction sentence. This unit’s problem-solving strategy is “two-question problems.”

Objectives:
- Subtract 0, 1, and 2 from a number
- Find differences by using doubles and related addition facts
- Subtract by finding missing addends
- Solve two-question problems by using the answer to the first question to answer the second question

Lesson 1: Subtracting 0, 1, 2
• Subtract 0, 1, and 2 from a number by applying the concepts of 0 less than, 1 less than, and 2 less than a number

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**Lesson 2: Thinking Addition to Subtract Doubles**

Objectives:
• Use addition doubles facts to subtract

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**Lesson 3: Thinking Addition to 10 to Subtract**

Objectives:
• Find differences by using related addition facts to 10

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**Lesson 4: Thinking Addition to 18 to Subtract**

Objectives:
• Find differences by using related addition facts to 18

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**Lesson 5: Finding the Missing Part**

Objectives:
• Subtract by finding missing addends

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**Lesson 6: Two-Question Problems**

Objectives:
• Solve two-question problems by using the answer to the first question to answer the second question

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**Lesson 7: Unit Review**

Objectives:
• Review unit concepts

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**Lesson 8: Unit Test**

**Unit 4: Place Value: Numbers to 100**

This unit is focused on your student’s mastery of place value as it relates to numbers through 100. Your student will identify the significance of tens and ones, locate numbers on a hundred chart, and use position words to describe the order of individual numbers within a set. The patterns within place value are reinforced throughout this unit. Your student will learn and practice the oral names of numbers, how each name is written, and the varying composition of tens and ones. This unit’s problem-solving strategy is “use data from a chart.”

Objectives:
• Represent two-digit numbers as groups of tens and ones
• Read and write number words for numbers 0–99
• Use models and symbols to compare and order two-digit numbers
• Extend patterns on a hundred chart and identify even and odd numbers
• Use data from a chart to solve problems

**Lesson 1: Models for Tens/Models for Tens and Ones**

Objectives:
Lesson 2: Reading and Writing Numbers

Objectives:
• Read and write number words for numbers 0–99

Lesson 3: Using Models to Compare/Using Symbols to Compare

Objectives:
• Compare two-digit numbers using models
• Compare two-digit numbers using symbols

Lesson 4: Before, After, and Between/Order Numbers

Objectives:
• Identify and write numbers that are one before, one after, or between given numbers
• Order 3 two-digit numbers from least to greatest or from greatest to least

Lesson 5: Number Patterns on a Hundred Chart

Objectives:
• Identify and extend number patterns on a hundred chart

Lesson 6: Even and Odd Numbers/Use Data from a Chart

Objectives:
• Identify even and odd numbers
• Use data from a chart to solve problems

Lesson 7: Unit Review

Objectives:
• Review unit concepts

Lesson 8: Unit Test

Unit 5: Counting Money

In this unit, your student will use money as a real-life application of mathematical concepts, which he practiced in previous units. By assigning worth and classifying coins by their distinctive attributes, your student will organize and skip-count to determine the value of a given set. Counting an assortment of coins beginning with the greatest individual value and continuing with other coins as they decrease in value establishes benchmarks for determining the overall worth of the collection. Your student will be introduced to the concept of equivalence as he learns how to find different ways to make up a set monetary value. This unit also helps with the conversion of counting strategies to mental math. The unit’s problem-solving strategy is “make an organized list.”

Objectives:
• Identify individual values and count collections of coins that include half-dollars, quarters, dimes, nickels, and pennies
• Show the same amount of money using the same amount of coins
• Count and write money amounts greater than one dollar
• Make an organized list to find different combinations of coins

Lesson 1: Dime, Nickel, and Penny

Objectives:
• Identify the value of a group of dimes, nickels, and pennies through 99 cents

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Lesson 2: Quarter and Half-Dollar

Objectives:
• Count a collection of coins that includes half-dollars, quarters, dimes, nickels, and pennies

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Lesson 3: Counting Collections of Coins

Objectives:
• Count collections of coins that include half-dollars, quarters, dimes, nickels, and pennies

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Lesson 4: Ways to Show the Same Amount

Objectives:
• Show the same amount of money using different sets of coins

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Lesson 5: One Dollar

Objectives:
• Count money amounts greater than one dollar and write the amount with a dollar sign and a decimal point

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Lesson 6: Make an Organized List (two-day lesson)

Objectives:
• Make an organized list to find different combinations of coins

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Lesson 7: Unit Review

Objectives:
• Review unit concepts

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Lesson 8: Unit Test

Unit 6: Mental Addition

The purpose of this unit is to practice and improve your student’s ability to solve addition problems using mental math. There are many strategies for using mental math to find the sum of an addition sentence, and individual preference plays a large role in the development of each student’s choice. Grounded by a solid knowledge of basic fact relationships, your student’s familiarity with addends is crucial to the development of mental math approaches to addition problems. The unit’s problem-solving strategy is “look for a pattern.”

Objectives:
• Use mental math to add tens and ones to a two-digit number
Lesson 1: Adding Tens

Objectives:
- Mentally add multiples of 10 to a two-digit number

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Lesson 2: Adding Ones

Objectives:
- Mentally add a two-digit number to a one-digit number

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Lesson 3: Adding Tens and Ones

Objectives:
- Add a two-digit number to a two-digit number using mental math

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Lesson 4: Adding on a Hundred Chart

Objectives:
- Use a hundred chart to add 2 two-digit numbers

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Lesson 5: Adding Multiples of 10

Objectives:
- Add using multiples of 10

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Lesson 6: Look for a Pattern (two-day lesson)

Objectives:
- Use number patterns to solve problems

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Lesson 7: Unit Review

Objectives:
- Review unit concepts

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Lesson 8: Unit Test

Unit 7: Mental Subtraction

The purpose of this unit is to practice and improve your student's ability to solve subtraction problems with mental math. Subtraction is largely based on your student's ability to recognize and recall related addition facts. The depth of your student's addition knowledge and his ability to associate facts between the two operations serves as a foundation for more complicated mathematical operations. This unit's problem-solving strategy is "missing or extra information."

Objectives:
- Mentally subtract multiples of 10 from two-digit numbers
- Find missing parts of 100 by counting up from a given number
- Subtract a two-digit number from a two-digit number with mental math and with models
- Determine whether problems can be solved with missing information or extra information
Lesson 1: Subtracting Tens

Objectives:
• Subtract multiples of 10 from two-digit numbers using mental math

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Lesson 2: Finding Parts of 100

Objectives:
• Find the missing part of 100 by counting up from the given part

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Lesson 3: Subtracting Multiples of 10

Objectives:
• Subtract using multiples of 10

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Lesson 4: Subtracting on a Hundred Chart

Objectives:
• Find the difference between two-digit numbers less than 100

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Lesson 5: Adding On to Subtract

Objectives:
• Subtract a two-digit number from a two-digit number mentally or with models

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Lesson 6: Missing or Extra Information

Objectives:
• Identify whether there is extra information or missing information in a problem
• Determine whether it is possible to solve a problem if it has missing information or extra information

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Lesson 7: Unit Review

Objectives:
• Review unit concepts

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Lesson 8: Unit Test

Unit 8: Adding Two-Digit Numbers

In this unit, your student will add multiple numbers with sums less than 100. Your student will use her knowledge of place value and basic addition facts to break apart complicated problems in order to add. Your student will learn when to regroup ten ones as one ten and when to add two-digit numbers. She will also use a number line to model two-digit addition. The unit’s problem-solving strategy is “draw a picture and write a number sentence.”

Objectives:
• Use models to add a one-digit number to a two-digit number and decide if regrouping is necessary
• Use place-value models and the standard algorithm to add 2 two-digit numbers with and without regrouping
• Use paper and pencil to add 3 two-digit numbers
• Draw pictures and write number sentences to solve addition problems

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Lesson 1: Regrouping 10 Ones for 1 Ten
Objectives:
• Use models to add a one-digit number to a two-digit number
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Lesson 2: Models to Add Two- and One-Digit Numbers
Objectives:
• Use concrete models to add a one-digit number to a two-digit number and decide if regrouping is needed
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Lesson 3: Adding Two- and One-Digit Numbers
Objectives:
• Add a one-digit number to a two-digit number, regroup if necessary, and record the process in a vertical addition frame
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Lesson 4: Models to Add Two-Digit Numbers
Objectives:
• Use place-value models and the standard algorithm to add 2 two-digit numbers
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Lesson 5: Adding Two-Digit Numbers
Objectives:
• Use the standard algorithm symbolically to add two-digit numbers with and without regrouping
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Lesson 6: Adding on a Number Line
Objectives:
• Use number lines to model two-digit addition
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Lesson 7: Adding Three Numbers
Objectives:
• Use paper and pencil to add 3 two-digit numbers
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Lesson 8: Draw a Picture and Write a Number Sentence
Objectives:
• Draw pictures and write number sentences to solve addition problems
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Lesson 9: Unit Review
Objectives:
• Review unit concepts
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Lesson 10: Unit Test

Unit 9: Subtracting Two-Digit Numbers

Appendix A.2.b Mathematics Course Guides
As your student makes the transition from subtracting one-digit numbers to subtracting two-digit numbers, some strategies such as counting up may become difficult to use. In this unit your student will work with models to better understand subtraction of two-digit numbers and implement more effective subtraction strategies. Using cubes as representations of tens and ones will allow your student to visualize the need to break apart groups of 10 when subtracting. He will also use a number line to model two-digit subtraction. Your student will learn that another example of the inverse relationship between the two operations is that addition may be used to check answers for subtraction problems. This unit’s problem-solving strategy is “two-question problems.”

Objectives:
- Use models and the standard algorithm to subtract a one-digit number from a two-digit number with or without regrouping
- Use models and the standard algorithm to subtract two-digit numbers
- Relate addition to subtraction by using one operation to check the other
- Select the correct operation to solve each part of a two-question problem

Lesson 1: Regrouping 1 Ten for 10 Ones

Objectives:
- Regroup 1 ten as 10 ones when subtracting

Lesson 2: Models to Subtract Two- and One-Digit Numbers

Objectives:
- Use models to subtract a one-digit number from a two-digit number with or without regrouping

Lesson 3: Subtracting Two- and One-Digit Numbers

Objectives:
- Subtract a one-digit number from a two-digit number with and without regrouping using the standard algorithm

Lesson 4: Models to Subtract Two-Digit Numbers

Objectives:
- Use models to subtract two-digit numbers, with and without regrouping

Lesson 5: Subtracting Two-Digit Numbers

Objectives:
- Use the standard subtraction algorithm to subtract a two-digit number from another two-digit number

Lesson 6: Subtracting on a Number Line

Objectives:
- Use number lines to model two-digit subtraction

Lesson 7: Using Addition to Check Subtraction

Objectives:
- Relate addition to subtraction by using one operation to check the other
Lesson 8: Two-Question Problems

Objectives:
- Solve two-question problems
- Select the operation to solve each question in a two-question problem

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Lesson 9: Unit Review

Objectives:
- Review unit concepts

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Lesson 10: Unit Test

Unit 10: Using Addition and Subtraction

In this unit, your student will apply addition and subtraction knowledge by making use of different strategies to solve problems. Your student will realize that the same method may not be the best choice to solve every problem. Your student will learn that estimation is used as an aid in finding sums and differences and is used to check answers that are either computed mentally or with paper and pencil. Your student will equate mathematical operations to real-life situations using two-digit coin amounts and word problems to add and subtract. This unit's problem-solving strategy is "try, check, and revise."

Objectives:
- Complete addition and subtraction problems using two-digit coin amounts
- Estimate the sums and differences of two-digit numbers
- Use different methods to solve addition and subtraction problems
- Solve problems involving adding and subtracting money by using the try, check, and revise strategy

Lesson 1: Adding Money

Objectives:
- Complete and record addition problems using two-digit coin amounts

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Lesson 2: Ways to Add

Objectives:
- Use different methods to solve addition problems

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Lesson 3: Subtracting Money

Objectives:
- Subtract using two-digit coin amounts

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Lesson 4: Ways to Subtract

Objectives:
- Use different methods to solve two-digit subtraction problems

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Lesson 5: Try, Check, and Revise

Objectives:
- Solve problems involving adding and subtracting money by using the try, check, and revise strategy

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Lesson 6: Unit Review

Objectives:
- Review unit concepts

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Lesson 7: Unit Test
MATH 2 B
In Math 2 B, the student will continue to expand upon his understanding of mathematical concepts, which are organized according to the following categories: number and operations, geometry, measurement, data analysis, and probability. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student’s development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, *enVisionMATH*, is the primary resource for this course.

The student will begin the semester by applying his understanding of numbers and patterns to geometric concepts in two and three dimensions. Next, the student will build upon his prior knowledge of fractions as equal parts of a whole before the student explores whole numbers and parts of numbers. The student will measure length, area, time, and temperature using the appropriate tools and units. The student will also connect numbers to statistics as he learns to gather data, display data in graphs, and interpret the information. By the end of the course, the student will extend his understanding of whole numbers to include numbers up to 1,000 and learn to add and subtract three-digit numbers. The student will also begin to approach the concepts of multiplication and division of whole numbers.

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The answer key document for *enVisionMATH Lessons* is located in the Virtual Library in the Answer Keys section and is not included as a resource in the Course Guide. You can access the Answer Keys in the Virtual Library: Home > Curriculum and Instruction > Answer Keys.

**Unit 1: Geometry**

This unit develops your student’s ability to recognize and manipulate shapes. Your student will exercise his spatial sense through visualizing, analyzing, and interpreting properties of shapes. The visual aspect of each lesson is crucial in the development of your student’s geometric knowledge, and it is also important for your student to learn to identify similar shapes in his everyday life.

Objectives:
- Identify attributes of plane shapes and solid figures
- Cut shapes apart to make new shapes
- Divide a rectangle into equal squares
- Use clues to solve riddles about plane shapes and solid figures

**Lesson 1: Flat Surfaces, Vertices, and Edges**

Objectives:
- Identify solid figures by their faces or flat surfaces, edges, and vertices

**Lesson 2: Relating Plane Shapes to Solid Figures**

Objectives:
- Identify the plane shapes that form the flat surfaces of solid figures

**Lesson 3: Polygons and Angles**

Objectives:
- Identify and draw polygons (triangles, quadrilaterals, pentagons, and hexagons) and list their attributes

**Lesson 4: Making New Shapes**

Objectives:
Lesson 5: Cutting Shapes Apart

Objectives:
• Cut shapes apart to make new shapes

Lesson 6: Dividing Rectangles into Equal Squares

Objectives:
• Divide rectangles into equal squares and count how many squares are needed to completely partition the rectangle

Lesson 7: Using Reasoning

Objectives:
• Use clues to solve riddles about plane shapes and solid figures

Lesson 8: Unit Review

Objectives:
• Review unit concepts

Lesson 9: Unit Test

Unit 2: Fractions

In this unit, your student will explore fractions as parts of a whole. She will identify and write fractions to show a part of a set. Visual representations will help to identify fractional parts, and your student will learn the significance of the numerator and the denominator as each corresponds to a part-whole relationship. Your student will gain experience identifying and showing various parts of whole numbers by working with numerators of one, called unit fractions, and numerators greater than one, called non-unit fractions. This unit's problem-solving strategy is "use objects."

Objectives:
• Identify and show unit and non-unit fractions of a region
• Estimate the fraction for a given part of a region
• Identify and show fractions of a set
• Use objects to model and solve problems involving fractions of a group

Lesson 1: Wholes and Equal Parts/Unit Fractions

Objectives:
• Determine whether a shape has been divided into equal or unequal parts. If the parts are equal, the student will count the number of parts
• Identify and show a unit fraction of a region

Lesson 2: Non-Unit Fractions and Regions

Objectives:
• Identify and show any fraction of a region
Lesson 3: Estimating Fractional Parts of a Whole

Objectives:
- Estimate the fraction for a given part of a region

Lesson 4: Fractions of a Set

Objectives:
- Identify and show fractions of a set

Lesson 5: Use Objects

Objectives:
- Use objects to solve problems finding fractions of a group

Lesson 6: Unit Review

Objectives:
- Review unit concepts

Lesson 7: Unit Test

Unit 3: Measurement: Length and Area

In this unit, your student will use measurement to determine length and area. Measuring with both nonstandard and standard units will further develop visual perception and aid your student in choosing correct units to find length and area. The strategies covered in this unit will encourage your student to use reasoning skills when he is asked to find estimated or exact values for items. Your student will also solve problems involving addition and subtraction in measurement. This unit’s problem-solving strategy is “use objects.”

Objectives:
- Estimate and measure the lengths and heights of objects using nonstandard and standard units
- Count units around shapes to find perimeter
- Use a square pattern block to find the area of a figure
- Use objects to find the distance around shapes

Lesson 1: Exploring Length/Using Nonstandard Units

Objectives:
- Measure the lengths of objects using nonstandard units
- Estimate and measure the lengths and heights of objects using nonstandard units

Lesson 2: Inches

Objectives:
- Estimate and measure items using inches

Lesson 3: Inches, Feet, and Yards

Objectives:
- Estimate and measure items that are about an inch, foot, and yard
Lesson 4: Centimeters

Objectives:

- Estimate and measure items using centimeters

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Lesson 5: Centimeters and Meters

Objectives:

- Estimate and measure the lengths and heights of objects in centimeters and meters

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Lesson 6: Measuring Length

Objectives:

- Estimate and measure the lengths and heights of objects using different nonstandard units

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Lesson 7: Adding and Subtracting in Measurement

Objectives:

- Use addition and subtraction to solve measurement problems

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Lesson 8: Comparing Lengths

Objectives:

- Measure to compare lengths and express the length difference in a standard unit

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Lesson 9: Exploring Perimeter

Objectives:

- Count units around shapes to find perimeter

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Lesson 10: Exploring Area

Objectives:

- Find the area of closed figures using same-sized objects to cover the space inside the figure

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Lesson 11: Unit Review

Objectives:

- Review unit concepts

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Lesson 12: Unit Test

Unit 4: Time and Temperature

In this unit, your student will measure time and temperature. These two skills involve reading a numbered scale. Your student will learn about the fundamental increments for telling time, as well as the Fahrenheit and Celsius degree scales. Your student will use his knowledge of measuring time and temperature to develop a concept of schedules and climatic change. Along with telling exact times and temperatures, your student will practice...
estimating time and temperature, and he will analyze the results as they impact real-life
surroundings. This unit’s problem-solving strategy is “multiple-step problems.”

Objectives:
- Read and express time with analog and digital clocks
- Develop a sense of comparative time durations
- Complete, read, and use a calendar
- Read and write temperatures shown on Fahrenheit and Celsius thermometers
- Find and use the answers to hidden questions to solve story problems

**Lesson 1: Telling Time to Five Minutes**

Objectives:
- Learn to associate numerals an an analog clock face with increments of
  five minutes

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**Lesson 2: Telling Time Before and After the Hour**

Objectives:
- Read and express time in terms of quarter and half past an hour and
  before an hour

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**Lesson 3: Estimating Time**

Objectives:
- Develop a sense of comparative time durations and the kinds of
  estimations that can be made with them

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**Lesson 4: Using a Calendar**

Objectives:
- Complete, read, and use a calendar

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**Lesson 5: Fahrenheit and Celsius**

Objectives:
- Show, read, and write temperatures shown on Fahrenheit and Celsius
  thermometers

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**Lesson 6: Multiple-Step Problems**

Objectives:
- Find and use the answers to hidden questions to solve story problems

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**Lesson 7: Unit Review**

Objectives:
- Review unit concepts

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**Lesson 8: Unit Test**

Unit 5: Graphs and Probability

Graphs are useful to collect, organize, and display information in order to solve problems.
This unit presents line plots, pictographs, bar graphs, and coordinate graphs as ways to
represent sets of data. Your student will be guided through the interpretive process and will
learn that providing a key and a title for each graph is a crucial part of communicating the graph’s meaning to others. The relative likelihood of events is also introduced in this unit. Your student will use given information to predict the occurrence of a certain event. This unit’s problem-solving strategy is “use a graph.”

Objectives:
- Represent sets of data with pictographs and bar graphs
- Locate and name points on a coordinate grid
- Use data to describe the probability of events
- Use line plots, picture graphs and bar graphs to solve problems

**Lesson 1: Organizing Data**

Objectives:
- Represent a set of data in a tally chart and in a bar graph

**Lesson 2: Graphing Lengths**

Objectives:
- Use a ruler to measure lengths and graph the results on a line plot

**Lesson 3: Pictographs/Bar Graphs**

Objectives:
- Make and use a pictograph to solve problems
- Use data in a tally chart to make a bar graph and answer questions about the data represented in the bar graph

**Lesson 4: Coordinate Graphs**

Objectives:
- Locate and name points on a coordinate grid

**Lesson 5: Likely and Unlikely**

Objectives:
- Use data to describe events as more likely or less likely

**Lesson 6: Certain, Probable, and Impossible**

Objectives:
- Record and analyze data to determine if an event is certain, probable, or impossible

**Lesson 7: Use a Graph**

Objectives:
- Use picture graphs and bar graphs to solve problems

**Lesson 8: Unit Review**

Objectives:
- Review unit concepts
Lesson 9: Unit Test

Unit 6: Numbers and Patterns to 1,000

In this unit, your student will focus on numbers and patterns through 1,000. Your student will represent numbers in a multitude of ways including number words, standard form, and expanded form. Your student will practice identifying patterns as well as comparing and ordering numbers by distinguishing the place value of ones, tens, and hundreds. Identification of counting sequences will help your student conceptualize the relative amount and order of certain numbers. This unit’s problem-solving strategy is “look for a pattern.”

Objectives:
- Count by hundreds and use place-value models to show numbers up to 1,000
- Identify and record three-digit numbers in expanded form, standard form, and number word form
- Identify patterns of numbers increasing by ones, tens, and hundreds
- Compare and order numbers up to 1,000
- Solve problems by finding number patterns

Lesson 1: Building 1,000/Counting Hundreds, Tens, and Ones

Objectives:
- Count by hundreds to 1,000
- Use place-value models to show numbers up to 1,000

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Lesson 2: Reading and Writing Numbers to 1,000

Objectives:
- Identify and record three-digit numbers in expanded form, standard form, and number word form

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Lesson 3: Changing Numbers by Hundreds and Tens

Objectives:
- Add and subtract multiples of 10 or 100 to and from a three-digit number without regrouping

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Lesson 4: Patterns with Numbers on Hundreds Charts

Objectives:
- Find, identify, and apply number patterns to numbers on a hundred chart

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Lesson 5: Skip Counting by 5, 10, 100 to 1,000

Objectives:
- Skip count on a number line and use patterns to identify the numbers that come next

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Lesson 6: Comparing Numbers

Objectives:
- Compare three-digit numbers using the symbols <, =, >

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Lesson 7: Before, After, and Between/Ordering Numbers

Objectives:
• Identify and write numbers that are one before, one after, or between given three-digit numbers
• Order 3 three-digit numbers from least to greatest and greatest to least

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Lesson 8: Look for a Pattern

Objectives:
• Solve problems by finding number patterns

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Lesson 9: Unit Review

Objectives:
• Review unit concepts

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Lesson 10: Unit Test

Unit 7: Three-Digit Addition and Subtraction
In this unit, your student will work with addition and subtraction of three-digit numbers. By writing addends in expanded form and using the Commutative Property of Addition and the Associative Property of Addition, addition with three-digit numbers will become more concrete and easier for your student to understand. Also, subtraction with three-digit numbers will become easier for your student to comprehend when she learns regrouping strategies and other models. The unit emphasizes mental math and estimation as ways to check answers to problems for either operation. This unit’s problem-solving strategy is “make a graph.”

Objectives:
• Use models to add three-digit numbers with and without regrouping
• Find missing parts of a number using mental math strategies
• Find the nearest hundreds of 2 three-digit numbers to estimate their difference
• Use models and a standard algorithm to subtract three-digit numbers
• Make a bar graph using data from a table

Lesson 1: Exploring Adding Three-Digit Numbers

Objectives:
• Explore different strategies for adding three-digit numbers

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Lesson 2: Mental Math/Estimating Sums

Objectives:
• Add three-digit numbers mentally without regrouping
• Choose a method to see if the sum of 2 three-digit numbers is enough to equal or exceed a given number

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Lesson 3: Models for Adding with Three-Digit Numbers

Objectives:
• Use place-value blocks to add 2 three-digit numbers with regrouping

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Lesson 4: Adding Three-Digit Numbers

Objectives:
• Use paper and pencil to add 2 three-digit numbers with regrouping

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Lesson 5: Exploring Subtracting Three-Digit Numbers

Objectives:
- Explore different strategies for subtracting three-digit numbers

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Lesson 6: Mental Math: Ways to Find Missing Parts

Objectives:
- Given a quantity and one of its parts, the student will find the missing part by counting on or counting back

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Lesson 7: Estimating Differences

Objectives:
- Use estimation to select two numbers that have a given difference

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Lesson 8: Subtracting Three-Digit Numbers

Objectives:
- Subtract three-digit numbers using a standard algorithm

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Lesson 9: Models for Subtracting with Three-Digit Numbers

Objectives:
- Use models to subtract three-digit numbers with regrouping

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Lesson 10: Make a Graph

Objectives:
- Make a bar graph using data from a table

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Lesson 11: Unit Review

Objectives:
- Review unit concepts

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Lesson 12: Unit Test

Unit 8: Multiplication Concepts

In this unit, your student will be introduced to multiplication. Your student will connect basic concepts of addition with different ways to think about situations requiring multiplication. Your student will think of multiplication problems as repeated additions or as an array of items arranged in rows and columns. Your student will learn the multiplication sign and other associated terms for multiplication, and he will explore how multiplication, like addition, is commutative. Your student will also learn how to recognize instances when multiplying numbers within word problems is required, and will implement strategies for finding solutions. This unit’s problem-solving strategy is “draw a picture and write a number sentence.”

Objectives:
- Use repeated addition and arrays to model multiplication stories
- Use multiplication number sentences to write and solve story problems
- Write multiplication problems in both horizontal and vertical forms
- Use arrays to investigate multiplying in any order
- Draw pictures and write number sentences to solve multiplication problems

Appendix A.2.b Mathematics Course Guides
Lesson 1: Repeated Addition and Multiplication

Objectives:
- Model multiplication by repeated addition of concrete objects

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Lesson 2: Building Arrays

Objectives:
- Build arrays to model multiplication situations

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Lesson 3: Writing Multiplication Stories

Objectives:
- Use multiplication number sentences to write and solve story problems

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Lesson 4: Vertical Form/Multiplying in Any Order

Objectives:
- Write multiplication problems in both horizontal and vertical forms
- Use arrays to investigate multiplying in any order

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Lesson 5: Draw a Picture and Write a Number Sentence

Objectives:
- Draw pictures and write number sentences to solve multiplication problems

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Lesson 6: Unit Review

Objectives:
- Review unit concepts

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Lesson 7: Unit Test

Unit 9: Division Concepts and Facts

Relating division to real-life situations will help your student understand division models. This unit introduces two different types of division stories, including sharing division and repeated subtraction division. Each type of division story allows your student to explore division by utilizing a method to interpret conditions and arrive at a solution for a given situation. Your student will also learn to represent division symbolically and demonstrate the inverse relationship of multiplication and division. This unit’s problem-solving strategy is “make a table and look for a pattern.”

Objectives:
- Solve division problems by sharing objects equally among groups
- Solve division problems with repeated subtraction
- Use division number sentences to solve story problems
- Use multiplication to solve related division problems
- Use tables to solve problems involving number patterns

Lesson 1: Division as Sharing

Objectives:
- Solve division problems by sharing objects equally among groups

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Lesson 2: Division as Repeated Subtraction

Objectives:
• Solve division problems by using repeated subtraction

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Lesson 3: Writing Division Stories

Objectives:
• Use division number sentences to solve story problems

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Lesson 4: Relating Multiplication and Division

Objectives:
• Use multiplication to solve related division problems

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Lesson 5: Make a Table and Look for a Pattern

Objectives:
• Use tables to solve problems involving number patterns

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Lesson 6: Unit Review

Objectives:
• Review unit concepts

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Lesson 7: Unit Test
MATH 3 A
Math 3 A

In Math 3 A, the student will learn mathematical concepts that are organized according to the following categories: number and operations, algebra, and geometry. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student’s development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, *envisionMATH*, is the primary resource for this course.

The student will study number concepts, such as basic facts operations. The student will learn to perform multi-digit numerical operations using models and manipulatives to increase understanding of the operations. Then the student will investigate the concept of numbers through patterns and relationships. Numbers will also be connected to geometry as the student explores attributes of solids and shapes.

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Unit 1: Let's Learn Math!

In this unit, your student will learn about the activities she will do in Math 3. The first lesson, intended for Learning Coaches, provides advice for using the Lesson Guide to support your student, and details the resources found in the course. It also offers helpful tips for building your student’s math skills. The second lesson is intended for students and their Learning Coaches. This lesson will introduce your student to the concept of math, and describe the structure of math lessons.

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life
- Describe the different parts of a lesson
- Describe the different types of assessments

Lesson 1: Learning Coach: Support Your Student in Math

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life

Lesson 2: Welcome to Math 3!

Objectives:
- Locate and describe lesson resources
- Describe the different parts of a lesson
- Describe the different types of assessments

Unit 2: Adding Whole Numbers

In this unit, your student will use her knowledge and skills of basic addition facts to add whole numbers of greater value. As your student learns to estimate and compute sums of numbers less than 1,000, she will use her background knowledge of place value to model the process of regrouping in the ones and tens place values. Several properties of addition are introduced to further develop your student’s addition strategies. This unit will provide your student with meaningful computational practice through word problems that are presented in authentic contexts. The problem-solving strategy that will be introduced to your student is “draw a picture.”
Objectives:
• Use addition properties
• Learn to round and estimate using mental math
• Add 2- and 3-digit numbers
• Add 3 or more numbers
• Use the draw a picture problem solving strategy

Lesson 1: Addition Meaning and Properties
Objectives:
• Use concrete materials and concepts of addition to model the
  Commutative, Associative, and Identity Properties of Addition

Lesson 2: Add on a Hundred Chart/Use Mental Math to Add
Objectives:
• Use a hundred chart to add two-digit numbers and develop mental math
  strategies
• Solve problems by adding with mental math

Lesson 3: Rounding
Objectives:
• Round three-digit whole numbers to the nearest ten or hundred, by
  comparing to the number halfway between or by using place value

Lesson 4: Estimating Sums
Objectives:
• Solve problems by estimating sums

Lesson 5: Adding 2-Digit Numbers
Objectives:
• Add 2-digit numbers using paper-and-pencil methods and use addition to
  solve problems

Lesson 6: Mid-unit Review
Objectives:
• Review concepts presented thus far in the unit

Lesson 7: Models for Adding 3-Digit Numbers
Objectives:
• Add 3-digit numbers using place-value blocks or pictures and record the
  results using the standard addition algorithm

Lesson 8: Adding 3-Digit Numbers
Objectives:
• Add 3-digit numbers using paper-and-pencil methods and use addition to
  solve problems

Lesson 9: Adding 3 or More Numbers/Draw a Picture
Objectives:
• Add 3 or more 2- and/or 3-digit numbers using paper-and-pencil methods and use addition to solve problems
• Draw a picture to solve a problem

Lesson 10: Adding Whole Numbers Review

Lesson 11: Adding Whole Numbers Test

Unit 3: Subtraction

In this unit, your student’s knowledge and skills in basic facts will support her as she learns to compute differences of whole numbers that are less than 1,000. Your student will use manipulatives and her knowledge of place value to model the process of regrouping in the ones, tens, and hundreds place values. The use of manipulatives is one method for your student to visualize the process of subtraction with regrouping. Your student will also learn the algorithmic process of subtraction with regrouping. Finally, your student will practice her computational skills through word problems that are presented in authentic contexts. The problem-solving strategy that will be introduced to your student is “draw a picture and write a number sentence.”

Objectives:
• Use models to subtract 2- and 3-digit numbers
• Subtract 2- and 3-digit numbers
• Subtract across zero
• Learn to write a number sentence

Lesson 1: Subtraction Meanings

Objectives:
• Recognize situations when subtraction is used to solve a problem and write number sentences

Lesson 2: Subtracting on a Hundred Chart

Objectives:
• Use a hundred chart to subtract 2-digit numbers and develop mental math strategies

Lesson 3: Using Mental Math to Subtract

Objectives:
• Solve problems by subtracting with mental math

Lesson 4: Estimating Differences/Reasonableness

Objectives:
• Solve problems by estimating differences
• Solve word problems and check answers for reasonableness

Lesson 5: Mid-unit Review

Objectives:
• Review concepts presented thus far in the unit

Lesson 6: Making Sense of Addition and Subtraction Equations
• Decide if both sides of an equation are equal and determine the value of an unknown number in an equation

Lesson 7: Models for Subtracting 2-Digit Numbers

Objectives:
• Subtract 2-digit numbers using place-value blocks or pictures and record the results using the standard subtraction algorithm

Lesson 8: Subtracting 2-Digit Numbers

Objectives:
• Subtract 2-digit numbers using paper-and-pencil methods and use subtraction to solve problems

Lesson 9: Models for Subtracting 3-Digit Numbers

Objectives:
• Subtract 3-digit numbers using place-value blocks or pictures and record the results using the standard subtraction algorithm

Lesson 10: Subtracting 3-Digit Numbers

Objectives:
• Subtract 3-digit numbers using paper-and-pencil methods and use subtraction to solve problems

Lesson 11: Subtracting Across Zero/Writing a Number Sentence

Objectives:
• Subtract 3-digit numbers using paper-and-pencil methods and use subtraction to solve problems
• Solve problems by choosing an operation based on a picture she has drawn describing the problem

Lesson 12: Subtraction Review

Lesson 13: Subtraction Test

Unit 4: Multiplication Meanings and Facts

In this unit, your student will revisit the concepts of equal groups and skip counting as he equates multiplication to repeated addition. Before your student practices the basic multiplication facts for mastery, it is important that he master the strategies for knowing how to multiply. Thus, your student will make arrays and use counters to model how multiplication works. In addition, your student will learn to write personal multiplication stories in order to demonstrate a multiplication fact. After your student is introduced to the concept and process of multiplication, he will learn some of the basic multiplication facts. Specifically, the strategies of using patterns and applying properties of multiplication will be used to multiply with the numbers 0, 1, 2, 5, 9, and 10. The problem solving strategies in this unit are “writing to explain” and “two-question problems.”

Objectives:
• Use multiplication as repeated addition
• Identify arrays and multiply
• Write multiplication stories
• Use 2, 5, 9, and 10 as factors
• Multiply with 0 and 1

Lesson 1: Multiplication as Repeated Addition / Arrays

Objectives:
• Write multiplication number sentences for given equal group situations, using the x symbol
• Write multiplication sentences for arrays, use arrays to find products, and use the Commutative Property of Multiplication

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Lesson 2: Using Multiplication to Compare

Objectives:
• Use models and write multiplication sentences to compare amounts

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Lesson 3: Writing Multiplication Stories/Writing to Explain

Objectives:
• Write math stories for given multiplication facts
• Use objects, words, pictures, numbers, and technology to provide a written explanation reflecting their understanding

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Lesson 4: 2 and 5 as Factors

Objectives:
• Use patterns to multiply with 2 and 5 as factors

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Lesson 5: 10 as a Factor

Objectives:
• Use patterns to multiply with 10 as a factor

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Lesson 6: Mid-Unit Review

Objectives:
• Review concepts presented thus far in the unit

Lesson 7: Multiplying by Multiples of 10

Objectives:
• Use multiplication facts and number patterns to multiply by multiples of 10

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Lesson 8: 9 as a Factor

Objectives:
• Use patterns to multiply with 9 as a factor

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Lesson 9: Multiplying with 0 and 1

Objectives:
• Use patterns and properties to multiply with 0 and 1 as factors

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Lesson 10: Two-Question Problems
Objectives:
• Solve for one problem and use the solution to complete a second problem

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Lesson 11: Multiplication Meanings and Facts Review

Lesson 12: Multiplication Meanings and Facts Test

Unit 5: Multiplication Fact Strategies: Use Known Facts

This unit provides your student with multiple strategies to learn her basic multiplication facts. The Distributive Property is introduced to teach simplifying multiplication problems. Your student will learn to use the “break apart” and “known-facts” strategies for multiplication facts in which the numbers 3, 4, 6, 7, 8, 11, and 12 are factors. Your student will be introduced to the Associative Property of Multiplication and will use the property to multiply numbers with three factors. By the end of this unit, your student will know the basic multiplication facts up to 12. Your student should continue to practice these basic multiplication facts throughout the year to ensure mastery of them. The problem-solving strategy in this unit is "multiple-step problems."

Objectives:
• Use 3, 4, 6, 7, 8, 11, and 12 as factors
• Multiply with 3 factors
• Solve multiple-step problems

Lesson 1: The Distributive Property

Objectives:
• Use the Distributive Property to simplify multiplication problems by breaking apart large arrays that represent multiplication facts into smaller arrays that represent other multiplication facts

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Lesson 2: 3 as a Factor / 4 as a Factor

Objectives:
• Use known facts to find products with 3 as a factor
• Use known facts and doubles to find products with 4 as a factor

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Lesson 3: 6 and 7 as Factors

Objectives:
• Use known facts to find products with 6 and 7 as factors

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Lesson 4: 8 as a Factor

Objectives:
• Use known facts and double to find products with 8 as a factor

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Lesson 5: 11 and 12 as Factors

Objectives:
• Use patterns to multiply with 11 and 12 as factors

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Lesson 6: Multiplying with 3 Factors

Objectives:
• Multiply three numbers and use the Associative Property of Multiplication
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**Lesson 7: Multiple-Step Problems**

Objectives:
- Solve multiple-step problems

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**Lesson 8: Multiplication Fact Strategies Review**

**Lesson 9: Multiplication Fact Strategies Test**

**Unit 6: Division**

In this unit, your student will explore two interpretations of division: division as sharing and division as repeated subtraction. Your student will make arrays, use counters, and draw pictures to model division. Your student will encounter remainders in some of the division problems presented in this unit. The use of arrays and counters will enable him to visualize remainders. Your student will learn how to analyze a word problem in order to interpret how the remainder will be displayed in the problem. Finally, your student will learn to write and solve his own division stories. The problem-solving strategies in this unit are “choose an appropriate equation” and “use objects and draw a picture.”

Objectives:
- Identify division as sharing
- Understand remainders
- Use division as repeated subtraction
- Write division stories
- Use objects and draw a picture

**Lesson 1: Division as Sharing**

Objectives:
- Use models to solve division problems involving sharing and record solutions using division number sentences

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**Lesson 2: Finding Missing Numbers in a Multiplication Table**

Objectives:
- Use multiplication tables to find answers to division problems

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**Lesson 3: Understanding Remainders**

Objectives:
- Learn that when dividing, there may be some left over called a remainder

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**Lesson 4: Division as Repeated Subtraction**

Objectives:
- Use models to solve division problems involving repeated subtraction and record solutions using division number sentences

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**Lesson 5: Problem Solving: Choose an Appropriate Equation**

Objectives:
- Solve word problems by writing equations that represent the problem situations

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Lesson 6: Writing Division Stories

Objectives:
- Write and solve number stories involving division

Lesson 7: Use Objects and Draw a Picture

Objectives:
- Solve problems by acting it out and using a drawing

Lesson 8: Relating Multiplication and Division

Objectives:
- Give a multiplication fact, state a related division fact and vice versa

Lesson 9: Fact Families with 2, 3, 4, and 5

Objectives:
- Give quotients for division facts with divisors of 2, 3, 4, or 5

Lesson 10: Fact Families with 6 and 7

Objectives:
- Give quotients for division facts with divisors of 6 and 7

Lesson 11: Fact Families with 8 and 9

Objectives:
- Give quotients for division facts with divisors of 8 and 9

Lesson 12: Making Sense of Multiplication/Division Equations

Objectives:
- Use multiplication and division facts to decide whether both sides of an equation are equal or to determine the value of an unknown in an equation

Lesson 13: Dividing with 0 and 1

Objectives:
- Use patterns and fact families to find answers to division facts with 0 and 1

Lesson 14: Division Review

Lesson 15: Division Test

Unit 7: Patterns and Relationships

In this unit, your student will learn to identify, describe, extend, and write a rule for a variety of nonnumeric and numeric patterns that repeat in predictable ways. He will also learn that patterns between pairs of numbers exist when they are related by multiplication, addition, or subtraction. Your student will encounter such related numbers in two-column or two-row tables. Given the value of one of the numbers, your student will learn to find the
value of the other number by writing a rule for the relationship and thereby extending the
table. In addition, your student will use his knowledge of numbers and operation symbols to
translate words from a given mathematical scenario into a numerical expression.

Objectives:
• Solve repeating patterns
• Determine number sequences
• Extend tables
• Write rules for situations and translate words to expressions

Lesson 1: Repeating Patterns / Number Sequences

Objectives:
• Identify and extend repeating geometric or repeating number patterns
• Identify and extend whole-number patterns involving addition and subtraction

Lesson 2: Extending Tables

Objectives:
• Extend tables of ordered pairs for situations involving multiplication, addition, or subtraction

Lesson 3: Writing Rules for Situations

Objectives:
• Find the rule and extend the table, given a table of number pairs

Lesson 4: Translating Words to Expressions

Objectives:
• Translate words or situations to expressions

Lesson 5: Geometric Patterns

Objectives:
• Extend patterns of cubes or tiles

Lesson 6: Patterns and Relationships Review

Lesson 7: Patterns and Relationships Test

Unit 8: Solids and Shapes

In this unit, your student will learn to identify, describe, and classify two-dimensional
objects, referred to as shapes or polygons, and three-dimensional objects, or solid figures,
based on the similarities and differences between their attributes. Your student will also
learn about points and lines, the building blocks used to describe polygons and solid figures.
She will recognize that while a point has no size, a set of points that extend in opposite
directions form a straight line and two lines joined at a point result in an angle. Relationships
between these building blocks result in the formation of several types of lines and angles.
These lines and angles help constitute polygons and solid figures in unique ways. This unit is
rich in mathematical terminology. Relating the vocabulary to as many real-life examples will
help your student gain familiarity with the terms. The problem-solving strategy for this unit is "make and test generalizations."

Objectives:
• Identify solid figures
• Relate solids and shapes
• Identify polygons, triangles, and quadrilaterals
• Combine, separate, and make new shapes
• Make and test generalizations

Lesson 1: Solid Figures / Relating Solids and Shapes
Objectives:
• Identify solid figures by name and describe their attributes
• Identify shapes related to given solids

Lesson 2: Angles
Objectives:
• Identify and classify angles in relation to right angles

Lesson 3: Polygons
Objectives:
• Identify and classify polygons

Lesson 4: Triangles
Objectives:
• Identify and classify triangles

Lesson 5: Quadrilaterals
Objectives:
• Identify and classify quadrilaterals

Lesson 6: Combining and Separating Shapes
Objectives:
• Create new shapes by combining shapes or by separating shapes

Lesson 7: Making New Shapes
Objectives:
• Make a new shape by cutting apart a shape and rearranging the pieces

Lesson 8: Solids and Shapes Review
Lesson 9: Solids and Shapes Test
MATH 3 B
Math 3 B

In Math 3 B, the student will continue to expand upon his understanding of mathematical concepts, which are organized according to the following categories: number and operations, algebra, geometry, measurement, and data analysis. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student’s development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, *enVisionMATH*, is the primary resource for this course.

The student will extend his number concepts to include values represented as fractions. Next the student will engage in hands-on learning of measurement by finding length, capacity, weight, mass, time, and temperature using the appropriate tools and units. Next, your student will solve problems involving perimeter and area. The student will connect numbers to statistics as he learns to gather data, display the data in graphs, and interpret the information.

Your student will have access to DimensionU™, which includes online math games that support your student’s understanding of lesson concepts. You will find the link to DimensionU™ on your student’s home page. Follow the directions to download the necessary software first. Once installed, DimensionU™ allows your student to access DimensionM™ to practice grades 3–7 and pre-algebra math skills in a gaming environment.

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**Unit 1: Understanding Fractions**

In this unit, your student will use manipulatives to represent fractions of a region and fractions of a set. The use of manipulatives will help your student develop proficiency in understanding how to identify, compare, and order fractions. Your student will also use models, pictures, and fraction strips to find equivalent fractions. Future math courses will use the basic fraction skills presented in this unit and apply them throughout all branches of mathematics, including measurement, geometry, probability, and statistics. Relating fractions to as many real-life examples will help your student gain familiarity with the concepts presented in this unit. The problem-solving strategy in this unit is “make a table and look for a pattern.”

Objectives:
- Write fractions to describe regions and sets that are divided into equal parts
- Use benchmark fractions to estimate
- Determine equivalent fractions and compare fractions using models
- Identify fractions on a number line

**Lesson 1: Dividing Regions into Equal Parts**

Objectives:
- Identify regions that have been divided into equal-sized parts and divide regions into equal-sized parts

**Lesson 2: Fractions and Regions**

Objectives:
- Associate the model, symbol, and words used to describe a fractional part of a whole region

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Lesson 3: Fractions and Sets

Objectives:
- Associate the model, symbol, and words used to describe a fractional part of a set

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Lesson 4: Benchmark Fractions

Objectives:
- Use benchmark fractions to estimate fractional parts

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Lesson 5: Comparing Fractions Using Benchmarks

Objectives:
- Use benchmark numbers to compare fractions with the same numerator or the same denominator

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Lesson 6: Finding Equivalent Fractions

Objectives:
- Use models to find equivalent fractions

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Lesson 7: Mid-unit Review

Objectives:
- Review concepts presented thus far in the unit

Lesson 8: Using Models to Compare Fractions

Objectives:
- Use models to compare fractions

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Lesson 9: Using Models to Compare Fractions: Same Numerator

Objectives:
- Use models and reasoning to compare fractions with the same numerator

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Lesson 10: Comparing Fractions on the Number Line

Objectives:
- Use number lines to compare fractions with like denominators or like numerators

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Lesson 11: Fractions on the Number Line

Objectives:
- Find and write fractions and mixed numbers on a number line
- Compare and order fractions and mixed numbers

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Lesson 12: Equivalent Fractions and the Number Line

Objectives:
- Use number lines to identify equivalent fractions
Lesson 13: Whole Numbers and Fractions

Objectives:
• Use fraction strips and number lines to find fraction names for whole numbers

Lesson 14: Make a Table and Look for a Pattern

Objectives:
• Make a table and look for a pattern to solve a problem

Lesson 15: Understanding Fractions Review (two-day lesson)

Lesson 16: Understanding Fractions Test

Unit 2: Customary and Metric Measurement

In this unit, your student will learn to estimate, measure, and select appropriate tools and units for length, capacity, mass, and weight in the customary and metric systems. At the beginning of this unit, your student will measure length with nonstandard units. This process illustrates to your student the need for standard units of measurement. Your student will continue her study of measurement by changing customary and metric units of length. Throughout this topic, each unit of measurement is compared to a real-life object. The particular object serves as a benchmark that your student can use to estimate the length, capacity, and length of an object before she measures it. Finally, your student will determine whether her estimate seems reasonable. The problem-solving strategies in this unit are “draw a picture” and “make a table and look for a pattern.”

Objectives:
• Measure length to the nearest inch and to the nearest fraction of an inch
• Estimate and measure length using inches, feet, yards, and miles
• Use customary units to estimate and measure capacity
• Use customary units to estimate and measure weight
• Draw a picture; make a table and look for a pattern

Lesson 1: Understanding Measurement

Objectives:
• Understand the measurement process and the need for standard units
• Learn to measure length with nonstandard units and to the nearest inch

Lesson 2: Fractions of an Inch

Objectives:
• Measure length to the nearest 1/2 and 1/4 inch

Lesson 3: Using Inches, Feet, Yards, and Miles

Objectives:
• Choose an appropriate unit, estimate, and measure in feet, yards, and miles
• Convert units among inches, feet, and yards

Lesson 4: Customary Units of Capacity

Objectives:
Lesson 5: Units of Weight

Objectives:
- Choose an appropriate unit and tool, estimate, and measure in cups, pints, quarts, and gallons
- Identify objects which hold about a cup, a pint, a quart, or a gallon

Lesson 6: Mid-unit Review

Objectives:
- Review concepts presented thus far in the unit

Lesson 7: Using Centimeters and Decimeters

Objectives:
- Estimate and measure lengths in centimeters

Lesson 8: Using Meters and Kilometers

Objectives:
- Choose an appropriate unit, estimate, and measure in meters and kilometers
- Convert units among kilometers, meters, centimeters, and millimeters

Lesson 9: Metric Units of Capacity

Objectives:
- Choose an appropriate unit and tool, estimate, and measure in milliliters and liters
- Identify objects that hold about a liter or a milliliter

Lesson 10: Units of Mass

Objectives:
- Choose an appropriate unit and tool, estimate, and measure in grams and kilograms
- Identify objects with a mass of about a gram or kilogram

Lesson 11: Problem Solving: Draw a Picture

Objectives:
- Draw a picture to solve a problem involving units of capacity and mass

Lesson 12: Make a Table and Look for a Pattern

Objectives:
- Make a table and look for a pattern to solve a problem
Lesson 13: Customary and Metric Measurement Review (two-day lesson)

Lesson 14: Customary and Metric Measurement Test

Unit 3: Perimeter and Area

In this unit, your student will learn that the distance around a plane shape is its perimeter. He will explore several strategies for calculating perimeter. Your student will investigate how to make a shape with a given perimeter and how different shapes can have the same perimeter. Then your student will explore the concept of area, which is the space inside a plane shape. Your student will solve problems involving area, and represent the answer using square units. He will learn the process of estimating and finding the area of regular and irregular shapes. The problem-solving strategies in this unit are “try, check, and revise” and “solve a simpler problem.”

Objectives:
- Measure perimeter of common shapes and find different shapes with the same perimeter
- Try, check, and revise
- Understand, estimate, and measure area
- Solve a simpler problem

Lesson 1: Understanding Perimeter

Objectives:
- Use standard units to find the perimeter of a shape

Lesson 2: Perimeter of Common Shapes

Objectives:
- Use standard units to find the perimeter of a shape

Lesson 3: Different Shapes with the Same Perimeter

Objectives:
- Match shapes to a given perimeter and learn that different shapes can have the same perimeter

Lesson 4: Try, Check, and Revise

Objectives:
- Solve a problem through the process of try, check, and revise

Lesson 5: Understanding Area/Estimating and Measuring Area

Objectives:
- Use concrete and pictorial models of square units to determine the area of two-dimensional surfaces

Lesson 6: Area of Squares and Rectangles

Objectives:
- Find the area of rectangles by counting units or by using a formula

Lesson 7: Area and the Distributive Property

Appendix A.2.b Mathematics Course Guides

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Objectives:
• Use the areas of rectangles to model the Distributive Property

Lesson 8: Area of Irregular Shapes
Objectives:
• Find the area of irregular shapes

Lesson 9: Equal Areas and Fractions
Objectives:
• Use equal areas of parts of figures to model unit fractions

Lesson 10: Solve a Simpler Problem
Objectives:
• Solve complex problems asking for the area of irregular shapes

Lesson 11: Perimeter and Area Review (two-day lesson)
Lesson 12: Perimeter and Area Test

Unit 4: Time and Temperature
In this unit, your student will solve many real-life problems involving time and temperature. Your student will learn how to tell time to the half hour, quarter hour, and to the minute on both analog and digital clocks. Your student’s knowledge of counting by fives and by ones will help your student measure time on an analog clock, while her understanding of fractions will support her comprehension of the terms “half hour” and “quarter hour.” Your student will also convert units of time and determine elapsed time. For problems involving temperature, your student will read thermometers and learn the benchmarks for freezing and boiling water in degrees Fahrenheit and degrees Celsius. These benchmarks will help your student connect appropriate temperatures for given real-world activities. The problem-solving strategy in this unit is “work backward.”

Objectives:
• Tell time to the half hour, quarter hour, and minute
• Convert units of time
• Determine elapsed time
• Measure temperatures
• Work backward

Lesson 1: Time to the Half Hour and Quarter Hour
Objectives:
• Tell time to the nearest half hour and quarter hour using analog and digital clocks, and identify times as a.m. or p.m.

Lesson 2: Time to the Minute
Objectives:
• Tell time to the nearest minute using analog and digital clocks

Lesson 3: Units of Time
Objectives:
• Perform simple conversions for units of time
Lesson 4: Elapsed Time

Objectives:
• Find elapsed time in intervals of minutes

Lesson 5: Temperature

Objectives:
• Read temperatures on Fahrenheit thermometers, and determine appropriate temperatures for given activities

Lesson 6: Work Backward

Objectives:
• Use the strategy work backward to solve problems

Lesson 7: Time and Temperature Review (two-day lesson)

Lesson 8: Time and Temperature Test

Unit 5: Multiplying Greater Numbers

This unit extends your student’s multiplication skills beyond basic facts. Your student will explore several new strategies to estimate and multiply 2- and 3-digit numbers by a 1-digit number. Some strategies include the use of patterns, rounding rules, breaking large numbers apart, and following an expanded algorithm. Manipulatives, such as place-value blocks, or counters will continue to serve as physical hands-on learning tools for your student. The problem-solving strategy in this unit is “draw a picture and write a number sentence.”

Objectives:
• Use mental math and estimation to multiply
• Use break apart and an expanded algorithm to multiply
• Multiply 2- and 3-digit numbers by 1-digit numbers
• Draw a picture and write a number sentence

Lesson 1: Using Mental Math to Multiply/Estimate Products

Objectives:
• Use mental math to multiply by multiples of 10, 100, and 1,000
• Estimate products of 1-digit and 2-digit numbers by using rounding

Lesson 2: Breaking Apart to Multiply

Objectives:
• Use an array and breaking apart to multiply 1-digit times 2-digit numbers

Lesson 3: Using an Expanded Algorithm

Objectives:
• Use breaking apart and the expanded algorithm to multiply a 1-digit times a 2-digit number

Lesson 4: Mid-unit Review
Objectives:
- Review concepts presented thus far in the unit

Lesson 5: Multiplying 2- and 3-Digit by 1-Digit Numbers

Objectives:
- Multiply a 1-digit times a 2-digit number with regrouping

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Lesson 6: Draw a Picture and Write a Number Sentence

Objectives:
- Solve word problems by drawing a picture and writing a number sentence

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Lesson 7: Multiplying Greater Numbers Review (two-day lesson)

Lesson 8: Multiplying Greater Numbers Test

Unit 6: Dividing with 1-Digit Numbers

In this unit, your student will extend her division skills beyond basic facts to solve problems involving multi-digit dividends. Your student will explore multiple strategies to support her comprehension and skill development in this area. Your student will use mental math strategies and make estimates before finding actual quotients in order to ensure reasonable solutions. In addition, your student will explore the division algorithm and use it to divide numbers with a remainder. Manipulatives, such as place-value blocks, arrays, or counters will continue to serve as physical hands-on learning tools for your student. This unit's problem-solving strategy is "multiple-step problems."

Objectives:
- Use mental math and estimation to divide
- Connect models and symbols
- Divide 2-digit numbers
- Divide with remainders
- Solve multiple-step problems

Lesson 1: Mental Math/Estimating Quotients

Objectives:
- Use known multiplication patterns to divide multiples of 10, 100, and 1,000 by a 1-digit number
- Use compatible numbers to estimate quotients

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Lesson 2: Connecting Models and Symbols

Objectives:
- Use place-value blocks and an algorithm to divide 2-digit numbers by 1-digit numbers

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Lesson 3: Dividing 2-Digit Numbers

Objectives:
- Divide 2-digit numbers by 1-digit numbers using paper and pencil

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Lesson 4: Dividing with Remainders

Objectives:
- Use arrays and the division algorithm to divide numbers with a remainder
Lesson 5: Multiple-Step Problems

Objectives:
- Use previously learned skills to solve multiple-step problems

Lesson 6: Dividing with 1-Digit Numbers Review (two-day lesson)

Lesson 7: Dividing with 1-Digit Numbers Test

Unit 7: Data and Graphs

In this unit, your student will collect, organize, display, analyze, and interpret real-world data. Your student will collect data in an organized way by using a tally chart. Once the data has been gathered, your student will display the data in pictographs and bar graphs in order to read and interpret the information. Your student will also construct line plots. While pictographs and bar graphs compare data, your student will learn that line plots can be used to organize and represent a data set. The problem-solving strategy in this unit is “use tables and graphs to draw conclusions.”

Objectives:
- Organize data
- Read and make pictographs and bar graphs
- Use a line plot to represent data
- Use tables and graphs to draw conclusions

Lesson 1: Organizing Data

Objectives:
- Use tally charts to record and organize survey data

Lesson 2: Reading Pictographs and Bar Graphs

Objectives:
- Read and interpret data from a pictograph and a bar graph

Lesson 3: Making Pictographs

Objectives:
- Make a pictograph from a table or tally chart

Lesson 4: Making Bar Graphs

Objectives:
- Make a bar graph to represent the data in a table or tally chart

Lesson 5: Mid-unit Review

Objectives:
- Review concepts presented thus far in the unit

Lesson 6: Line Plots and Probability

Objectives:
- Use a line plot to organize the results of a probability experiment and to predict future events
Lesson 7: Length and Line Plots

Objectives:
- Use line plots to organize and represent measurement data

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Lesson 8: Use Tables and Graphs to Draw Conclusions

Objectives:
- Solve problems by using tables and graphs to draw conclusions

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Lesson 9: Data and Graphs Review (two-day lesson)

Lesson 10: Data and Graphs Test
MATH 4 A
Math 4 A

In Math 4 A, the student will learn mathematical concepts that are organized according to the following categories: number and operations, algebra, and geometry. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student’s development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, enVisionMATH, is the primary resource for this course.

The topics that are presented in this semester build upon the concepts that the student previously learned. The student will use his understanding of number concepts to extend the place value of whole numbers into the millions. Basic facts will be used to compute with greater numbers.

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The answer key document for enVisionMATH Lessons is located in the Virtual Library in the Answer Keys section and is not included as a resource in the Course Guide. The Virtual Library also contains the most up-to-date Answer Keys for other practices in this course. You can access the Answer Keys in the Virtual Library: Home > Curriculum and Instruction > Answer Keys. Some Answer Keys will be located under the Categories heading and others will be located under the Resources heading. The answer key document for the Daily Spiral Review Answer Keys is located in the BackPack. You can access the Answer Keys in the BackPack under Web Links.

Unit 1: Let's Get Ready to Learn Math!

In this unit, your student will learn about the activities he will do in Math 4. The first lesson, intended for Learning Coaches, provides advice for using the Lesson Guide to support your student, and details the resources found in the course. It also offers helpful tips for building your student’s math skills. The second lesson is intended for students and their Learning Coaches. This lesson will introduce your student to the concept of math, and describe the structure of math lessons.

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life
- Learn ways to become a confident math learner
- Describe the different parts of a lesson and the different types of assessments

Lesson 1: Learning Coach: Support Your Student in Math

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life

Lesson 2: Welcome to Math 4!

Objectives:
- Learn ways to become a confident math learner
- Locate and describe lesson resources
- Describe the different parts of a lesson
- Describe the different types of assessments

Unit 2: Numeration

This unit reinforces a solid comprehension of the base ten numeration system. Previously, your student used his understanding of place value to read and write numbers in the hundreds and thousands. As your student delves deeper into place value throughout this course, he will extend his ability to read, order, compare, round, and represent larger numbers in a variety of ways. Manipulatives will play a key role in developing your student’s understanding of numbers in the thousands and millions place values. Proficiency of the
concepts presented in this unit will provide your student with the foundation to grasp more complex math concepts. Finally, your student will read, write, and compare decimal values as he counts money and makes change to solve problems using real-world scenarios. This unit’s problem-solving strategy is “make an organized list.”

Objectives:
- Work with numbers in thousands and millions
- Compare and order whole numbers
- Use money to understand decimals
- Count money and make change
- Make an organized list

**Lesson 1: Thousands**

Objectives:
- Represent numbers with place-value blocks and number lines
- Write numbers in standard form, expanded form, and word form

**Lesson 2: Millions**

Objectives:
- Represent numbers in the millions using a place-value chart
- Write numbers in expanded form, using periods to help write numbers in word form

**Lesson 3: Place Value Relationships**

Objectives:
- Learn how digits within a multi-digit whole number relate to each other by their place value

**Lesson 4: Comparing and Ordering Whole Numbers**

Objectives:
- Apply knowledge of place value to compare and order numbers

**Lesson 5: Rounding Whole Numbers**

Objectives:
- Show how to use place value to round whole numbers

**Lesson 6: Using Money to Understand Decimals**

Objectives:
- Use place-value charts to read, write, and compare decimals in tenths and hundredths using money

**Lesson 7: Counting Money and Making Change**

Objectives:
- Convert a collection of coins and bills into a total amount and make change

**Lesson 8: Solving Problems Involving Money**

Objectives:
• Solve real-world problems that involve money and giving change by counting

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Lesson 9: Numeration Review

Lesson 10: Numeration Unit Test

Unit 3: Adding and Subtracting Whole Numbers

In this unit, your student will apply her knowledge and skills of basic addition and subtraction facts to solve addition and subtraction problems involving whole numbers of greater value. As your student learns to estimate and compute sums of numbers less than 100,000, she will use her background knowledge of place value to model the process of adding and subtracting numbers in the thousands period, with and without regrouping. Several properties of addition and the breaking-apart strategy are introduced to further develop your student’s addition strategies. This unit will provide your student with meaningful computational practice through word problems that are presented in authentic contexts. The problem-solving strategies that will be introduced to your student are “missing or extra information” and “draw a picture and write an equation.”

Objectives:
• Use mental math and estimation strategies
• Add and subtract whole numbers
• Subtract across zeros
• Problem solving strategies

Lesson 1: Mentally Add & Subtract/Estimate Sum & Difference

Objectives:
• Apply a variety of methods to add and subtract whole numbers mentally
• Round whole numbers to estimate sums and differences

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Lesson 2: Missing or Extra Information

Objectives:
• Identify what information in a problem is not needed or not present

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Lesson 3: Adding Whole Numbers

Objectives:
• Add numbers to hundred thousands with and without regrouping

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Lesson 4: Subtracting Whole Numbers

Objectives:
• Subtract numbers to thousands with and without regrouping

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Lesson 5: Subtracting Across Zeros

Objectives:
• Subtract numbers with zeros to thousands

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Lesson 6: Draw a Picture and Write an Equation

Objectives:
• Use a picture or diagram to translate an everyday situation into a number sentence or equation
Unit 4: Multiplication Meanings and Facts

In this unit, your student will revisit the concepts of equal groups and skip counting as he equates multiplication to repeated addition. Your student will use arrays and counters to model how multiplication works. In addition, your student will use patterns and apply properties of multiplication to multiply with the numbers 0, 1, 2, 5, 9, 10, 11, and 12. By mastering these basic multiplication facts, your student will develop his ability to solve multi-digit multiplication problems and division problems. The problem solving strategy in this unit is “draw a picture and write an equation.”

Objectives:
- Understand meanings of multiplication
- Learn patterns for multiplication facts
- Use multiplication properties
- Learn 2, 4, 6, 7, 8, 10, 11, and 12 as factors
- Draw a picture and write an equation

Lesson 1: Meanings of Multiplication

Objectives:
- Recognize multiplication as repeated addition of equal groups, used in arrays and comparisons

Lesson 2: Patterns for Facts

Objectives:
- Use patterns to find products with factors of 2, 5, and 9

Lesson 3: Multiplication Properties

Objectives:
- Use multiplication properties to simplify computations

Lesson 4: 3 and 4 as Factors

Objectives:
- Use the Distributive Property to simplify multiplication problems by rewriting one of the factors as a sum of two numbers

Lesson 5: 6, 7, and 8 as Factors

Objectives:
- Use the Distributive Property and other regrouping properties to simplify multiplication involving 6s, 7s, and 8s by rewriting one of the factors

Lesson 6: 10, 11, and 12 as Factors

Objectives:
- Use patterns as aids to master facts and multiples of 10, 11, and 12

Lesson 7: Draw a Picture and Write an Equation
Objectives:
- Draw pictures to problem solve multiplication situations and use the pictures to write number sentences

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Lesson 8: Multiplication Meanings and Facts Review

Lesson 9: Multiplication Meanings and Facts Unit Test

Unit 5: Multiplying by 1-Digit Numbers

In this unit, your student’s knowledge of basic facts and number patterns will support her as she learns to multiply single-digit numbers by multiples of 10 and 100. Your student will use strategies, such as compatible numbers and rounding, to estimate products. This unit will also engage your student in 3-digit by 1-digit and 4-digit by 1-digit multiplication problems. The standard algorithm, expanded algorithm, and break apart strategies are some strategies that your student will employ to solve these multiplication problems. This unit’s problem-solving strategy is “draw a picture and write an equation.”

Objectives:
- Multiply by multiples of 10 and 100
- Use mental math, estimation, and reasonableness to solve problems
- Use an expanded algorithm
- Multiply 1-digit numbers by 2-digit and 3-digit numbers
- Draw a picture and write an equation

Lesson 1: Multiplying by Multiples of 10 and 100

Objectives:
- Use basic multiplication facts and number patterns to multiply by multiples of 10 and 100

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Lesson 2: Use Mental Math to Multiply/Round to Estimate

Objectives:
- Use compatible numbers with adjustment, breaking apart, and other strategies to multiply numbers mentally
- Use compatible numbers and rounding to estimate solutions to multiplication problems

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Lesson 3: Reasonableness

Objectives:
- Check for reasonableness by making sure calculations answer the questions asked and by using estimation to make sure the calculation was performed correctly

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Lesson 4: Using an Expanded Algorithm

Objectives:
- Record multiplication using an expanded algorithm

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Lesson 5: Connecting the Expanded and Standard Algorithms

Objectives:
- Multiply 2-digit numbers by 1-digit numbers using paper-and-pencil methods

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Lesson 6: Multiplying 2-Digit by 1-Digit Numbers

Objectives:
- Multiply 2-digit numbers by 1-digit numbers using paper-and-pencil methods

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Lesson 7: Multiplying 3- and 4-Digit by 1-Digit Numbers

Objectives:
- Use the standard algorithm to multiply 3- and 4-digit numbers by 1-digit numbers

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Lesson 8: Draw a Picture and Write an Equation

Objectives:
- Solve problems using the problem-solving strategies Draw a Picture and Write an Equation

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Lesson 9: Multiplying by 1-Digit Numbers Review

Lesson 10: Multiplying by 1-Digit Numbers Unit Test

Unit 6: Multiplying by 2-Digit Numbers

In this unit, your student will multiply with multiples of 10 and 100, round factors, and use compatible numbers to estimate products. Your student will use several strategies, including arrays, tables, the traditional algorithm, and the expanded algorithm, to solve 2-digit by 2-digit multiplication problems. Your student will practice his mental math skills by multiplying greater numbers. This unit’s problem-solving strategy is “two-question problems.”

Objectives:
- Mentally multiply and estimate products
- Use arrays and an expanded algorithm
- Multiply 2-digit numbers by multiples of 10 and other 2-digit numbers

Lesson 1: Mentally Multiply 2-Digit Numbers/Estimate Product

Objectives:
- Discover and understand patterns used to multiply by 10 and 100
- Use these patterns to solve problems involving multiples of 10 and 100
- Use rounding and compatible numbers to estimate solutions to multiplication problems

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Lesson 2: Arrays and an Expanded Algorithm

Objectives:
- Use arrays and expanded algorithms to multiply two-digit numbers by two-digit numbers to find the product

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Lesson 3: Multiplying 2-Digit Numbers by Multiples of Ten

Objectives:
- Use grids and patterns to multiply 2-digit numbers and multiples of 10

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Lesson 4: Multiplying 2-Digit by 2-Digit Numbers
Objectives:
• Use partial products to multiply two-digit numbers by two-digit numbers and find the products

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Lesson 5: Special Cases/Two-Question Problems

Objectives:
• Learn to multiply greater numbers
• Solve two-question problems

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Lesson 6: Multiplying by 2-Digit Numbers Review

Lesson 7: Multiplying by 2-Digit Numbers Unit Test

Unit 7: Division Meanings and Facts

In this unit, your student will explore two interpretations of division: division as sharing and division as repeated subtraction. Your student will use arrays, counters, number lines, and pictures to model division. She will investigate special division rules that involve dividing by the numbers 0 and 1. Finally, your student will practice her skills to relate a multiplication fact to a division fact. She will learn that, like addition and subtraction, multiplication and division have an inverse relationship; this means that their operations undo each other. Subsequently, your student will be able to produce related multiplication and division facts, or fact families. A strong knowledge of basic multiplication facts will lend the use of fact families as an efficient strategy for solving division facts. The problem-solving strategy in this unit is “draw a picture and write an equation.”

Objectives:
• Use meanings of division
• Relate multiplication and division
• Use special quotients
• Use multiplication facts to find division facts
• Draw a picture and write an equation

Lesson 1: Meanings of Division

Objectives:
• Use and draw models to solve division problems

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Lesson 2: Relating Multiplication and Division

Objectives:
• Use arrays to write and complete multiplication and division fact families

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Lesson 3: Special Quotients

Objectives:
• Use multiplication facts with 0 and 1 to learn about special division rules with 0 and 1

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Lesson 4: Using Multiplication Facts to Find Division Facts

Objectives:
• Identify multiplication facts related to division facts in order to solve division problems

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Lesson 5: Draw a Picture and Write an Equation

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Objectives:
- Draw pictures and write related number sentences to solve problems

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Lesson 6: Division Meanings and Facts Review

Lesson 7: Division Meanings and Facts Unit Test

Lesson Guide (Coaching Guide):
Assessment
Have your student complete the test. Then later, review the results. Discuss and correct any questions answered incorrectly before proceeding to the next lesson.

Unit 8: Dividing by 1-Digit Divisors

In this unit, your student will estimate quotients and divide 3- and 4-digit dividends by single-digit divisors. Your student will encounter remainders in some of the division problems presented in this unit. He will use arrays and counters to visualize remainders. Your student will also analyze word problems to determine how to interpret and use remainders. Your student’s knowledge of place-value, related multiplication and division facts, and estimation will allow him to understand and use a standard algorithm when dividing with larger numbers. The standard algorithm will help your student to split the calculation into simpler steps. Finally, your student will learn how to factor a whole number. He will find that prime numbers have only two factors, while composite numbers have more than two factors. This unit’s problem-solving strategy is “multiple-step problems.”

Objectives:
- Use mental math and estimation to divide
- Divide with remainders
- Determine prime and composite numbers
- Divide 2- and 3-digit numbers by 1-digit numbers
- Use factors

Lesson 1: Using Mental Math to Divide/Estimating Quotients

Objectives:
- Use basic facts and patterns of zeros to solve division problems with 3-digit dividends and 1-digit divisors
- Use compatible numbers and rounding to estimate quotients

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Lesson 2: Estimating Quotients for Greater Dividends

Objectives:
- Estimate quotients of multi-digit division problems using multiplication facts and place-value concepts

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Lesson 3: Use Objects to Divide/Repeated Subtraction

Objectives:
- Use repeated subtraction to model division
- Record division as repeated subtraction

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Lesson 4: Dividing with Remainders

Objectives:
- Divide whole numbers by 1-digit divisors resulting in quotients with remainders

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Lesson 5: Connecting Models and Symbols

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Objectives:
- Use place value to understand the algorithm of long division

**Lesson 6: Dividing 2-Digit by 1-Digit Numbers**

Objectives:
- Use the standard algorithm to divide a two-digit number by a one-digit number

**Lesson 7: Dividing 3-Digit by 1-Digit Numbers**

Objectives:
- Use the standard algorithm to divide 3-digit numbers by 1-digit numbers

**Lesson 8: Mid-Unit Review**

Objectives:
- Review concepts presented thus far in the unit

**Lesson 9: Deciding Where to Start Dividing**

Objectives:
- Use the standard algorithm to divide 3-digit numbers by 1-digit numbers and properly decide where to begin dividing

**Lesson 10: Dividing 4-Digit by 1-Digit Numbers**

Objectives:
- Estimate and find quotients for 4-digit dividends and 1-digit divisors

**Lesson 11: Factors**

Objectives:
- Learn how to factor whole numbers

**Lesson 12: Prime and Composite Numbers**

Objectives:
- Learn to identify prime and composite numbers

**Lesson 13: Multiple-Step Problems**

Objectives:
- Identify the hidden question in a multi-step problem
  - Use the answer to that hidden question to solve the original problem

**Lesson 14: Dividing by 1-Digit Divisors Review**

**Lesson 15: Dividing by 1-Digit Divisors Unit Test**

**Unit 9: Lines, Angles, and Shapes**

In this unit, your student will learn about points, lines, and planes, which are the building blocks to other geometric figures. Your student will study how the relationships between
these building blocks result in the formation of several types of lines, angles, and polygons. Using a protractor, your student will measure and draw angles of varying degrees. Polygons are named by the number of sides and angles they possess, and your student will learn to identify and describe different polygons based on such attributes. While taking a closer look at triangles, your student will find that triangles are classified based on the length of their sides and by the size of their angles. Your student will also investigate the classification system of quadrilaterals. Finally, your student will determine whether an object has line symmetry. This unit’s problem-solving strategy is “make and test generalizations.”

Objectives:
- Identify points, lines, planes, line segments, angles, and rays
- Measure angles
- Identify polygons
- Identify triangles and quadrilaterals
- Make and test generalizations

Lesson 1: Points, Lines, and Planes

Objectives:
- Identify and describe points, lines, and planes

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Lesson 2: Line Segments, Rays, and Angles

Objectives:
- Learn geometric terms to describe parts of lines and types of angles

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Lesson 3: Understanding Angles and Unit Angles

Objectives:
- Use unit angles and fractions of a circle to find angle measures

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Lesson 4: Measuring with Unit Angles

Objectives:
- Use a smaller angle to measure a larger angle by repeating the unit

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Lesson 5: Measuring Angles

Objectives:
- Measure and draw angles

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Lesson 6: Adding and Subtracting Angle Measures

Objectives:
- Find unknown angle measures by adding and subtracting

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Lesson 7: Polygons

Objectives:
- Learn to identify polygons

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Lesson 8: Triangles

Objectives:
- Learn to identify and classify triangles
Lesson 9: Quadrilaterals/Make and Test Generalizations

Objectives:
- Learn to identify quadrilaterals
- Solve problems by making and testing generalizations

Lesson 10: Line Symmetry

Objectives:
- Determine if a plane figure has line symmetry and, if so, how many lines of symmetry it has

Lesson 11: Lines, Angles, and Shapes Review

Lesson 12: Lines, Angles, and Shapes Unit Test
MATH 4 B
**Math 4 B**

In Math 4 B, the student will continue to expand his knowledge of mathematical concepts, which are organized according to the following categories: number and operations, algebra, geometry, measurement, data analysis, and probability. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student’s development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, *envisionMATH*, is the primary resource for this course.

The topics that are presented in this semester build upon the concepts that the student previously learned. Numbers will be connected to geometry as the student identifies and draws attributes of two- and three-dimensional shapes. The student will engage in hands-on learning of measurement by finding length, area, perimeter, volume, capacity, weight, mass, time, and temperature, using the appropriate tools and units. Customary and metric systems of measurement will be studied, and the student will convert within the same measurement system to solve problems. The student will also connect numbers to statistics as he learns to gather data, display the data in graphs, and interpret the information using median, range, and mode. Finally, the student will explore probability by listing possible outcomes of a given event, conducting experiments, and representing the probability of the event as a fraction.

On your home page you will find a link to DimensionU™, which includes online math games to support your understanding of lesson concepts. Follow the directions to download the necessary software first. Once installed, DimensionU™ allows you to access DimensionM™ to practice your math skills in a gaming environment.

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**Unit 1: Understanding Fractions**

In this unit, your student will use fraction circles, fraction strips, and other models to represent, compare, order, and estimate fractions. Your student will identify fractional parts of a whole region, whole object, and whole set. Throughout this unit, your student will explore equivalent fractions, express fractions in simplest form, and write mixed numbers and improper fractions interchangeably. Your student will use the skills that he learns in this unit in future math courses as well as in everyday tasks. Relating fractions to as many real-life examples as possible will help your student gain familiarity with the concepts presented in this unit. The problem-solving strategy in this unit is “look for a pattern.”

Objectives:
- Identify regions and sets
- Determine equivalent fractions
- Write fractions in simplest terms
- Compare and order fractions
- Convert improper fractions and mixed numbers

**Lesson 1: Regions and Sets**

Objectives:
- Identify and draw fractional parts of a region and a set, and divide sets to show fractional parts

**Lesson 2: Estimating Fractional Amounts**

Objectives:
- Estimate fractional parts of regions and sets
Lesson 3: Equivalent Fractions

Objectives:
- Use models and objects to show equivalent fractions

Lesson 4: Number Lines and Equivalent Fractions

Objectives:
- Use a number line to identify and write equivalent fractions

Lesson 5: Fractions in Simplest Form

Objectives:
- Express equivalent fractions in simplest form

Lesson 6: Improper Fractions and Mixed Numbers

Objectives:
- Identify and write mixed numbers as improper fractions and improper fractions as numbers

Lesson 7: Comparing Fractions

Objectives:
- Use benchmark fractions to compare fractions with unlike denominators

Lesson 8: Ordering Fractions (two-day lesson)

Objectives:
- Use common denominators and equivalent fractions to order fractions with unlike denominators

Lesson 9: Look for a Pattern

Objectives:
- Recognize patterns and be able to continue the pattern

Lesson 10: Understanding Fractions Review

Lesson 11: Understanding Fractions Unit Test

Unit 2: Adding and Subtracting Fractions

In this unit, your student will explore the meaning of fractions by decomposing and composing simple fractions. Then your student will work with models to gain an understanding of addition and subtraction of fractions and mixed numbers. This work will only involve fractions with like denominators. Your student will explore the meaning of multiplication of fractions by working with unit fractions and models of fractions. Relating fractions to as many real-life examples as possible will help your student gain familiarity with the concepts presented in this unit.

Objectives:
Lesson 1: Decomposing and Composing Fractions

Objectives:
- Decompose fractions and represent them as compositions of fractions in a variety of ways

Lesson 2: Add and Subtract Fractions with Like Denominators

Objectives:
- Add and subtract fractions with like denominators using models and paper and pencil

Lesson 3: Modeling Addition and Subtraction of Mixed Numbers

Objectives:
- Use models to add and subtract mixed numbers

Lesson 4: Adding Mixed Numbers

Objectives:
- Use models and computation to add mixed numbers

Lesson 5: Subtracting Mixed Numbers

Objectives:
- Use models and computation to subtract mixed numbers

Lesson 6: Fractions as Multiples of Unit Fractions

Objectives:
- Use models and computation to add mixed numbers

Lesson 7: Multiplying a Fraction by a Whole Number

Objectives:
- Multiply a fraction by a whole number using models
- Multiply a whole number and a fraction to solve problems

Lesson 8: Adding and Subtracting Fractions Review

Objectives:
- Review for the unit test

Lesson 9: Adding and Subtracting Fractions Unit Test

Unit 3: Understanding Decimals

In this unit, your student will read and write decimals to the hundredths place in expanded, standard, and word form. Models of hundredths and place-value charts will help your
student to understand the value that is represented by a decimal, which will allow him to compare and order decimals. Your student will learn to write decimals and fractions interchangeably and graph them on a number line. Additionally, your student will learn to write decimals and mixed numbers interchangeably and graph them on a number line. The problem-solving strategy in this unit is "draw a picture."

Objectives:
- Determine decimal place value
- Compare and order decimals
- Convert fractions and decimals
- Identify fractions and decimals on a number line
- Draw a picture

Lesson 1: Decimal Place Value

Objectives:
- Use models and place-value charts to represent decimals to hundredths
- Read and write decimals in expanded, standard, and word form

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Lesson 2: Comparing and Ordering Decimals

Objectives:
- Use models and place-value charts to compare decimals to hundredths
- Use greater-than and less-than symbols to order decimal numbers

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Lesson 3: Fractions and Decimals

Objectives:
- Understand how to write fractions as decimals and decimals as fractions

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Lesson 4: Mid-Unit Review

Lesson 5: Fractions and Decimals on the Number Line (two-day lesson)

Objectives:
- Learn to locate and name fractions and decimals on a number line

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Lesson 6: Equivalent Fractions and Decimals

Objectives:
- Use equivalent fractions to write fractions as decimals

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Lesson 7: Mixed Numbers and Decimals on the Number Line

Objectives:
- Understand how to graph decimals and mixed numbers on the number line

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Lesson 8: Draw a Picture

Objectives:
- Solve problems using the strategy Draw a Picture

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Lesson 9: Understanding Decimals Review
Lesson 10: Understanding Decimals Unit Test

Unit 4: Operations with Decimals

In this unit, your student will use models of tenths and hundredths and her knowledge of addition and subtraction basic facts to estimate and compute decimal sums and differences involving decimals through hundredths. Your student will also learn to multiply and divide a decimal by a whole number. Using standard algorithms for multiplication and division, your student will find that computing products and quotients of decimals is very similar to that of whole numbers. Your student will find that the main difference is in placing the decimal when computing products and quotients with decimal numbers. The problem-solving strategy is “try, check, and revise.”

Objectives:
- Round and estimate decimal sums and differences
- Add and subtract decimals
- Multiply a decimal and a whole number
- Divide a decimal by a whole number
- Use the try, check, and revise strategy

Lesson 1: Round Decimals/Estimate Decimal Sum and Difference

Objectives:
- Round two-place decimal numbers to one place or the nearest whole number
- Round decimal numbers to estimate sums and differences

Lesson 2: Modeling Addition and Subtraction of Decimals

Objectives:
- Add and subtract decimals in tenths and hundredths using models

Lesson 3: Adding and Subtracting Decimals

Objectives:
- Estimate and compute the sum or difference of whole numbers and positive decimals to two places

Lesson 4: Mid-Unit Review

Lesson 5: Multiplying a Whole Number and a Decimal (two-day lesson)

Objectives:
- Multiply a decimal number by a whole number

Lesson 6: Dividing a Decimal by a Whole Number

Objectives:
- Divide a decimal number by a whole number

Lesson 7: Try, Check, and Revise

Objectives:
- Try a solution, check the solution, and, if not correct, revise the solution, following the same method until the correct solution is determined via checking
Unit 5: Area and Perimeter

In this unit, your student will explore strategies for finding area and perimeter. Using centimeter grid paper, your student will determine the area of regular and irregular figures by counting the number of square units that cover the interior of the figure. Your student will also use formulas to find the area of squares, rectangles, parallelograms, and triangles and to find the perimeter of polygons. Additionally, your student will explore concepts that relate area and perimeter, such as whether or not rectangles can have the same perimeter but different areas or if it is possible for rectangles to have the same area but different perimeters. This unit’s problem-solving strategy is “solve a simpler problem and make a table.”

Objectives:
- Determine area
- Find the area of squares, rectangles, parallelograms, and triangles
- Solve for perimeter of a figure
- Solve for perimeters and areas of different figures
- Solve a simpler problem and make a table

Lesson 1: Understanding Area

Objectives:
- Measure the area of a figure by counting the number of square units that cover a region

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Lesson 2: Area of Squares and Rectangles

Objectives:
- Find the area of rectangles by counting square units or by using a formula

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Lesson 3: Area of Irregular Shapes

Objectives:
- Find the area of irregular shapes

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Lesson 4: Area of Parallelograms

Objectives:
- Use the formula for the area of a rectangle in order to find a formula for the area of a parallelogram

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Lesson 5: Area of Triangles

Objectives:
- Use the relationship between triangles and parallelograms to find the area of triangles

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Lesson 6: Mid-Unit Review

Lesson 7: Perimeter

Objectives:
- Find the perimeter of a polygon by adding the lengths of the sides or by using the formula
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**Lesson 8: Solving Perimeter and Area Problems**

Objectives:
- Use formulas for the perimeter and area of rectangles to solve real-world problems

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**Lesson 9: Same P. and Different A./Same A. and Different P. (two-day lesson)**

Objectives:
- Compare different rectangles with the same perimeter to discover the change in area
- Compare different rectangles with the same area to discover the change in perimeter

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**Lesson 10: Solve a Simpler Problem**

Objectives:
- Break a problem into smaller, more manageable pieces and find a pattern to fit

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**Lesson 11: Area and Perimeter Review**

**Lesson 12: Area and Perimeter Unit Test**

**Unit 6: Measurement, Time, and Temperature**

In this unit, your student will learn to select appropriate tools and units to estimate and measure length, capacity, and weight in the customary system; and length, capacity, and mass in the metric system. Using a table of units, multiplication, and division, your student will convert units of measure within the same system. Next your student will study elapsed time. Your student will also learn to measure temperature and calculate changes in temperature in both degrees Fahrenheit and degrees Celsius. The use of real measuring tools, such as thermometers, scales, and clocks, as well as real items, such as cups and daily schedules, will add meaning to your student’s study of measurement.

Objectives:
- Use customary units of length, capacity, and weight
- Convert customary units
- Use metric units of length, capacity, and mass
- Convert metric units
- Determine time, elapsed time, and temperature

**Lesson 1: Using Customary Units of Length**

Objectives:
- Estimate and measure length by choosing the most appropriate unit of length

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**Lesson 2: Customary Units of Capacity**

Objectives:
- Estimate fluently with customary capacity units (cups, pints, quarts, and gallons)
- Compare the relative sizes of capacity measurements

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Lesson 3: Units of Weight

Objectives:
• Estimate fluently and measure with units of weight

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Lesson 4: Changing Customary Units

Objectives:
• Convert between customary units

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Lesson 5: Using Metric Units of Length

Objectives:
• Estimate and measure length to the nearest centimeter, and choose the most appropriate metric unit for measuring length

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Lesson 6: Mid-Unit Review

Lesson 7: Metric Units of Capacity

Objectives:
• Estimate fluently with milliliters and liters
• Measure capacity using these metric units

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Lesson 8: Units of Mass

Objectives:
• Estimate and measure with units of mass—grams and kilograms

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Lesson 9: Changing Metric Units

Objectives:
• Convert between metric units

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Lesson 10: Units of Time/Elapsed Time (two-day lesson)

Objectives:
• Compare several different units of time and freely convert from one unit of time to another
• Find the difference in time using a beginning and an end time
• Use elapsed time to find a beginning and an end time

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Lesson 11: Measurement, Time, and Temperature Review

Lesson 12: Measurement, Time, and Temperature Unit Test

Unit 7: Data and Graphs

In this unit, your student will encounter real-world problems that require collecting, organizing, displaying, analyzing, and interpreting data. Your student will learn how to collect data in an organized way by using a tally chart. She will learn how to use different displays for different types of data, including bar graphs and line plots. The problem-solving strategy in this unit is “make a graph.”

Objectives:
• Use data from surveys
Lesson 1: Data from Surveys

Objectives:
- Design and use a survey with a sample size that allows accurate predictions to be made about a larger population

Lesson 2: Interpreting Graphs

Objectives:
- Use bar graphs to display data

Lesson 3: Line Plots

Objectives:
- Learn and understand how to draw line plots, interpret points, and recognize outliers

Lesson 4: Solving Problems Involving Line Plots (two-day lesson)

Objectives:
- Construct line plots using given data and use the line plot to answer questions about the data set

Lesson 5: Make a Graph

Objectives:
- Make and use graphs to display data and solve problems

Lesson 6: Data and Graphs Review

Lesson 7: Data and Graphs Unit Test

Unit 8: Equations

In this unit, your student will study equations. He will determine if two equations are equal or not equal to each other. The equations presented in this unit also include variables. Your student will solve for the variable in addition, subtraction, multiplication, and division equations by using the inverse operation to undo the operation of the equation.

Objectives:
- Determine whether two expressions are equal
- Add and subtract to solve equations
- Multiply and divide to solve equations

Lesson 1: Equal or Not Equal

Objectives:
- Learn and understand the properties of equality

Lesson 2: Solving Addition and Subtraction Equations

Objectives:
- Learn and understand how to use addition and subtraction to solve equations
Lesson 3: Solving Multiplication and Division Equations

Objectives:

- Learn and understand how to use multiplication and division to solve equations

Lesson 4: Equations Review

Lesson 5: Equations Unit Test
MATH 5 A
Math 5 A

In Math 5 A, the student will learn mathematical concepts that are organized according to the following categories: number and operations, algebra, and geometry. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student’s development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, *enVisionMATH*, is the primary resource for this course.

The topics that are presented in this semester build upon the concepts that the student previously learned. The student will extend his understanding of place value to numbers through the millions and billions. He will also extend his ability to represent numbers by learning how to use exponential notation. Fractions and decimals will be studied to determine their relationship. The student will further refine his skills in all four operations and will apply his computational skills to problems involving greater whole numbers and decimals through the thousandths place. Then the student will investigate the concept of numbers through patterns, expressions, and relationships. Through such exercises, the student will gain increased exposure to variables. Numbers will also be connected to geometry as the student measures angles and compares types of polygons.

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Unit 1: Let’s Get Ready to Learn Math!

In this unit, your student will learn about the activities he will do in Math 5. The first lesson, intended for Learning Coaches, provides advice for using the Lesson Guide to support your student, and details the resources found in the course. It also offers helpful tips for building your student’s math skills. The second lesson is intended for students and their Learning Coaches. This lesson will introduce your student to the concept of math, and describe the structure of math lessons.

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life
- Create a goal and steps to accomplish that goal
- Describe the different parts of a lesson and different types of assessments

Lesson 1: Learning Coach: Supporting Your Student in Math

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life

Lesson 2: Welcome to Math 5!

Objectives:
- Create a goal and steps to accomplish that goal
- Locate and describe lesson resources
- Describe the different parts of a lesson
- Describe the different types of assessments

Unit 2: Numeration, Addition, and Subtraction

This unit reinforces a solid comprehension of the base ten numeration system. As your student delves deeper into place value throughout this course, he will extend his ability to read, order, compare, round, and represent numbers to the billions and the thousandths...
place values. Proficiency of the concepts presented in this unit will provide your student with the foundation to grasp more complex math concepts.

Also in this unit, your student will apply his knowledge of basic addition and subtraction facts to solve addition and subtraction problems involving whole numbers and decimals. As your student learns to estimate and compute whole number and decimal sums, he will use his background knowledge of place value to model the process of adding and subtracting with and without regrouping. Several properties of addition and the compatible numbers strategy are used to further develop your student’s addition skills. This unit will provide your student with meaningful computational practice through word problems that are presented in authentic contexts. This unit’s problem-solving strategies are “look for a pattern,” “draw a picture and write an equation,” and “multiple-step problems.”

Objectives:
- Understand place value and decimal place value
- Compare and order whole numbers
- Compare and order decimals
- Solve multiple-step problems; Use mental math, rounding, and estimating
- Add and subtract decimals

Lesson 1: Place Value / Comparing and Ordering Whole Numbers

Objectives:
- Write the standard, expanded, and word forms of whole numbers in the billions and identify the value of digits in whole numbers
- Compare and order whole numbers

Lesson 2: Decimal Place Value

Objectives:
- Write decimals in standard form, word form, and expanded form through millionths

Lesson 3: Comparing and Ordering Decimals

Objectives:
- Compare and order decimals through thousandths

Lesson 4: Look for a Pattern

Objectives:
- Look for patterns with decimal-number sets in order to solve problems

Lesson 5: Mental Math/Rounding Whole Numbers and Decimals

Objectives:
- Compute sums and differences mentally using the Commutative and Associative Properties of Addition, compatible numbers, and compensation
- Round whole numbers through millions and decimals through thousandths

Lesson 6: Mid-Unit Review

Objectives:
- Review concepts presented thus far in the unit

Lesson 7: Estimating Sums and Differences
Objectives:
• Use rounding and compatible numbers to estimate sums and differences of whole numbers and decimals

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Lesson 8: Draw a Picture and Write an Equation

Objectives:
• Use pictures and write equations to help them solve problems

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Lesson 9: Modeling Addition and Subtraction of Decimals

Objectives:
• Add and subtract decimals in tenths and hundredths using models

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Lesson 10: Adding Decimals

Objectives:
• Compute sums of decimals involving tenths, hundredths, and thousandths

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Lesson 11: Subtracting Decimals

Objectives:
• Compute differences of decimals involving tenths, hundredths, and thousandths

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Lesson 12: Multi-Step Problems

Objectives:
• Use multiple steps to solve a variety of problems

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Lesson 13: Numeration, Addition, and Subtraction Review (two-day lesson)

Lesson 14: Numeration, Addition, and Subtraction Unit Test

Unit 3: Multiplying Whole Numbers

In this unit, your student will use place-value patterns and four properties of multiplication to multiply whole numbers of greater value. Your student will learn to simplify multiplication, especially when multiplying with multiples of 10, 100, and 1,000. Your student’s prior mastery of basic multiplication facts will allow her to focus on new concepts, such as partial products and the traditional algorithm, to solve multi–digit multiplication problems. The problem solving strategy in this unit is “draw a picture and write an equation.”

Objectives:
• Use multiplication properties
• Use mental math and estimation to find products
• Multiply 2-digit numbers by 2-digit numbers
• Multiply greater numbers
• Use exponents

Lesson 1: Multiplication Properties

Objectives:
• Identify and apply the Commutative, Associative, Identity, and Zero Properties of Multiplication
Lesson 2: Using Mental Math to Multiply/Estimating Products

Objectives:
• Mentally compute products of whole numbers using place-value patterns and the properties of multiplication
• Use rounding or compatible numbers to estimate products of whole numbers

Lesson 3: Multiplying by 1-Digit Numbers

Objectives:
• Use partial products or the traditional algorithm to multiply multi-digit numbers by a one-digit number

Lesson 4: Multiplying 2-Digit by 2-Digit Numbers

Objectives:
• Multiply two-digit numbers by two-digit numbers

Lesson 5: Multiplying Greater Numbers

Objectives:
• Multiply two-digit numbers by factors with more than two digits

Lesson 6: Exponents

Objectives:
• Use exponential notation

Lesson 7: Multiplying Whole Numbers Review (two-day lesson)

Lesson 8: Multiplying Whole Numbers Unit Test

Unit 4: Dividing by 1-Digit Divisors

In this unit, your student will estimate and divide up to four-digit dividends by single-digit divisors. Your student will learn to simplify division, especially when dividing with a dividend that is a multiple of 10 and 100. Since relating multiplication to division serves as an efficient strategy for solving division problems, your student should be fluent with his multiplication facts. In doing so, your student will be able to concentrate on learning new skills, such as dividing within the context of money, dividing with zeros in the quotient, and dividing to find factors of whole numbers. Your student will also study the concepts of prime and composite numbers. The problem-solving strategies in this unit are "reasonableness" and "draw a picture and write an equation."

Objectives:
• Divide by multiples of 10 and estimate quotients
• Divide by 1-digit divisors
• Understanding factors
• Determine prime and composite numbers

Lesson 1: Divide Multiples of 10 and 100/Estimate Quotients

Objectives:
• Find the quotient of a division problem whose dividend is a multiple of 10, where division involves a basic fact
Lesson 2: Reasonableness/Connecting Models and Symbols

Objectives:
• Check problems for reasonableness by using various methods, including estimation and checking their final answer
• Find quotients using the model of sharing money

Lesson 3: Dividing by 1-Digit Divisors/Zeros in the Quotient

Objectives:
• Divide three-digit whole numbers by one-digit divisors
• Divide with zeros in the quotient

Lesson 4: Understanding Factors

Objectives:
• Use divisibility rules to determine if a number is divisible by another and to find factor pairs of a given number

Lesson 5: Prime and Composite Numbers

Objectives:
• Identify numbers as prime or composite and find the prime factorization of a number

Lesson 6: Draw a Picture and Write an Equation

Objectives:
• Use pictures and equations to help them represent remainders in a problem

Lesson 7: Dividing by 1-Digit Divisors Review (two-day lesson)

Lesson 8: Dividing by 1-Digit Divisors Unit Test

Unit 5: Dividing by 2-Digit Divisors

In this unit, your student will estimate quotients and divide up to five-digit dividends with two-digit divisors. The solutions to these division problems include one-digit and two-digit quotients, as well as quotients with a remainder. Basic multiplication facts will help your student find the quotient to division problems whose dividends and divisors are multiples of 10. This unit’s problem-solving strategies are “multiple-step problems” and “missing or extra information.”

Objectives:
• Use patterns to divide
• Estimate quotients with 2-digit divisors
• Multiple-Step problems
• Divide by multiples of 10
• Use 1- and 2-digit quotients

Lesson 1: Using Patterns to Divide

Objectives:
Lesson 2: Estimating Quotients with 2-Digit Divisors

Objectives:
• Use estimation to find approximate solutions to quotients with two-digit divisors using compatible numbers

Lesson 3: Connecting Models and Symbols

Objectives:
• Use arrays and area models to model division

Lesson 4: Multiple-Step Problems

Objectives:
• Find the hidden question or questions to solve multiple-step problems

Lesson 5: Dividing by Multiples of 10

Objectives:
• Find quotients with a two-digit divisor that is a multiple of ten

Lesson 6: Mid-Unit Review

Objectives:
• Review concepts presented thus far in the unit

Lesson 7: 1-Digit Quotients

Objectives:
• Find one-digit quotients where the divisor is a two-digit number

Lesson 8: 2-Digit Quotients

Objectives:
• Divide a three-digit number by a two-digit number to find a two-digit quotient

Lesson 9: Estimating and Dividing/Missing, Extra Information

Objectives:
• Solve problems involving division of numbers with 4 or 5 digits by 2-digit divisors with an estimate, or by using a calculator when the exact answer is needed
• Determine which information is missing and identify extraneous information in problems

Lesson 10: Dividing by 2-Digit Divisors Review (two-day lesson)

Lesson 11: Dividing by 2-Digit Divisors Unit Test
Unit 6: Variables and Expressions

In this unit, your student will estimate quotients and divide up to five-digit dividends with two-digit divisors. The solutions to these division problems include one-digit and two-digit quotients, as well as quotients with a remainder. Basic multiplication facts will help your student find the quotient to division problems whose dividends and divisors are multiples of 10. This unit’s problem-solving strategies are “multiple-step problems” and “missing or extra information.”

Objectives:
- Solve variables and expressions
- Use patterns and expressions to solve problems
- Use the Distributive Property
- Apply the Order of Operations

Lesson 1: Variables and Expressions

Objectives:
- Translate words into algebraic expressions

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Lesson 2: Patterns and Expressions

Objectives:
- Use patterns to show relationships and solve algebraic expressions

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Lesson 3: More Patterns and Expressions

Objectives:
- Write and evaluate expressions involving multiplication, addition, and subtraction

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Lesson 4: Patterns: Extending Tables

Objectives:
- Extend patterns in a table using given rules
- Identify the relationship between corresponding terms in the sequences

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Lesson 5: Distributive Property

Objectives:
- Use the Distributive Property to simplify expressions and solve equations

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Lesson 6: Order of Operations

Objectives:
- Use given values for variables to evaluate numerical or algebraic expressions with three or more numbers and two or more operations

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Lesson 7: Addition and Subtraction Expressions

Objectives:
- Model addition and subtraction patterns shown in tables and write rules for the patterns

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Lesson 8: Multiplication and Division Expressions

Appendix A.2.b Mathematics Course Guides
Objectives:
• Model multiplication and division patterns shown in tables and write rules for the patterns

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Lesson 9: Act It Out and Use Reasoning
Objectives:
• Solve problems by showing how to act out the problem
• Use information given in the problem to draw conclusions

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Lesson 10: Variables and Expressions Review (two-day lesson)

Lesson 11: Variables and Expressions Unit Test

Unit 7: Multiplying and Dividing Decimals
In this unit, your student will use mental math strategies to estimate products and quotients of problems involving decimals. Your student will apply the standard algorithm to multiply a decimal by a whole number and to multiply a decimal by another decimal. The steps for dividing decimals using the standard algorithm will also be taught to divide a decimal by a whole number and to divide a decimal by another decimal. This unit’s problem-solving strategy is “multiple-step problems.”

Objectives:
• Multiply and divide decimals by 10, 100, and 1,000
• Estimate the product of a decimal and a whole number
• Multiply and divide a decimal by a whole number
• Solve multiple-step problems

Lesson 1: Multiplying Decimals by 10, 100, or 1,000
Objectives:
• Mentally multiply decimals by 10, 100, and 1,000

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Lesson 2: Multiplying a Decimal by a Whole Number
Objectives:
• Use a standard algorithm to multiply a whole number and a decimal

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Lesson 3: Estimate Decimal & Whole Products/Mult. Decimals
Objectives:
• Use rounding and compatible numbers to estimate products of whole numbers and decimals
• Identify estimates as overestimates or underestimates
• Use the standard algorithm to multiply decimals by decimals

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Lesson 4: Model and Perform Decimal Multiplication
Objectives:
• Use number sense and place value to multiply decimals
• Find products of whole numbers and decimals to ten thousandths

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Lesson 5: Dividing Decimals by 10, 100, or 1,000
Objectives:
• Mentally divide decimals by 10, 100, or 1,000

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Lesson 6: Mid-Unit Review

Objectives:
• Review concepts presented thus far in the unit

Lesson 7: Number Sense: Decimal Division

Objectives:
• Use reasoning to correctly place the decimal point in a quotient

Lesson 8: Dividing a Decimal by a Whole Number

Objectives:
• Use the standard algorithm to divide a decimal by a whole number

Lesson 9: Estimate, Divide Decimal by Whole/Divide Decimals

Objectives:
• Use compatible numbers to estimate quotients of decimals and whole numbers
• Use the standard algorithm to divide decimals by decimals

Lesson 10: Multiple-Step Problems

Objectives:
• Use multiple steps to solve a variety of problems

Lesson 11: Multiplying and Dividing Decimals Review (two-day lesson)

Lesson 12: Multiplying and Dividing Decimals Unit Test

Unit 8: Shapes

In this unit, your student will learn about points, lines, and planes, the building blocks used to describe other geometric figures. Your student will recognize the appropriate labels that are needed in drawings of lines and rays. Also, your student will examine how to say specific lines and rays and how to write them with proper notation. Using a protractor, your student will measure and draw angles of varying degrees. Polygons are named by the number of sides and angles they possess, and your student will learn to identify and describe different polygons based on such attributes. While taking a closer look at triangles, your student will find that triangles fall into classifications according to the length of their sides or by the size of their angles. Your student will also investigate the classification system of quadrilaterals.

Objectives:
• Apply basic geometric ideas
• Measure and classify angles
• Identify polygons, triangles, and quadrilaterals
• Make and test generalizations

Lesson 1: Basic Geometric Ideas

Objectives:
• Use geometric terms to describe locations and parts of space

Lesson 2: Measuring and Classifying Angles
Objectives:
- Measure, draw, and classify angles

Lesson 3: Polygons

Objectives:
- Identify and classify polygons

Lesson 4: Triangles

Objectives:
- Identify and classify triangles

Lesson 5: Quadrilaterals

Objectives:
- Identify and classify quadrilaterals

Lesson 6: Special Quadrilaterals/Classifying Quadrilaterals

Objectives:
- Learn about the properties of special quadrilaterals
- Sort a variety of quadrilaterals to develop the hierarchy or "family tree" for quadrilaterals

Lesson 7: Problem Solving: Make and Test Generalizations

Objectives:
- Make and test generalizations of patterns in different examples

Lesson 8: Shapes Review (two-day lesson)

Lesson 9: Shapes Unit Test
MATH 5 B
Math 5 B

In Math 5 B, the student will continue to expand upon mathematical concepts that are organized according to the following categories: number and operations, algebra, geometry, measurement, data analysis, and probability. Within each category, concepts are developed through the mathematical processes of problem-solving, reasoning, communication, connections, and representations. Building both conceptual knowledge and procedural fluency supports the student’s development of mathematical thinking and reasoning in solving various problems of authentic contexts. The Scott Foresman and Addison Wesley series textbook, *enVisionMATH*, is the primary resource for this course.

The topics that are presented in this semester build upon the concepts that the student previously learned. The student will further refine his skills in all four operations and will apply his computational skills to problems involving fractions and mixed numbers. The student will study 2- and 3-dimensional figures and calculate perimeter, area, and volume of regular and irregular figures. The student will engage in hands-on learning of measurement by finding length, area, perimeter, circumference, capacity, volume, weight, and mass using the appropriate tools and units. Algebraic expressions and equations are represented in various forms, and the student will translate between algebraic representations, such as from a function table to an equation. The student will be introduced to integers to develop skills in comparing, ordering, and graphing negative values. The student will connect numbers to statistics as he learns how to gather data and display the data in various types of graphs. Finally, the student will explore probability by listing possible outcomes of a given event, conducting experiments, and representing the theoretical and experimental probabilities of the event as a fraction.

Your student will have access to DimensionU™, which includes online math games that support your student’s understanding of lesson concepts. You will find the link to DimensionU™ on your student’s home page. Follow the directions to download the necessary software first. Once installed, DimensionU™ allows your student to access DimensionM™ to practice grades 3–7 and pre-algebra math skills in a gaming environment.

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The answer key document for *enVisionMATH Lessons* is located in the Virtual Library in the Answer Keys section and is not included as a resource in the Course Guide. You can access the Answer Keys in the Virtual Library: Home > Curriculum and Instruction > Answer Keys. The answer key document for the Daily Spiral Review Answer Keys is located in the BackPack. You can access the Answer Keys in the BackPack under Web Links.

**Unit 1: Fractions and Decimals**

In this unit, your student will identify fractional parts of a whole region and whole set. Your student will learn how division relates to fractions through the process of dividing a whole into equal parts. This unit will explain how to show equivalent fractions, express fractions in simplest form, and write mixed numbers and improper fractions interchangeably. Your student will also learn how to write tenths, hundredths, and thousandths as decimals and fractions interchangeably. Determining greatest common factor and comparing and ordering on a number line are other concepts and skills included in this unit. The problem-solving strategy in this unit is “writing to explain.”

Objectives:

- **Apply meanings of fractions**
- **Divide fractions**
- **Convert mixed numbers and improper fractions**
- **Compare and order fractions and mixed numbers**
- **Simplify fractions to simplest terms and determine equivalent fractions**

**Lesson 1: Meanings of Fractions / Fractions and Division**

Objectives:

- Identify and show fractional parts of regions and sets
- Use division to segment objects into equal parts that are fractions of a whole
- Represent fractions as points on the number line
Lesson 2: Mixed Numbers and Improper Fractions

Objectives:
• Express fractions greater than 1 as mixed numbers or improper fractions

Lesson 3: Equivalent Fractions/Compare and Order Fractions

Objectives:
• Identify fractions that are equivalent
• Find fractions equivalent to a given fraction using computational procedures
• Determine which of two fractions or mixed numbers is greater or less in order to compare and order fractions and mixed numbers

Lesson 4: Common Factors and Greatest Common Factor

Objectives:
• Determine common factors and the greatest common factor of numbers

Lesson 5: Fractions in Simplest Form

Objectives:
• Identify fractions that are in simplest form and find the simplest form of a fraction

Lesson 6: Mid-Unit Review

Objectives:
• Review concepts presented thus far in the unit

Lesson 7: Tenths and Hundredths

Objectives:
• Represent decimals (tenths and hundredths) as fractions
• Represent fractions with denominators of 10 and 100 as decimals

Lesson 8: Thousandths

Objectives:
• Represent decimals (thousandths) as fractions and fractions with denominators of 1,000 as decimals

Lesson 9: Fractions and Decimals on the Number Line

Objectives:
• Label a point on a number line using a fraction and a decimal
• Write a fraction and a decimal for a point on a number line

Lesson 10: Problem Solving: Writing to Explain

Objectives:
• Explain how to estimate fractional amounts of objects
Unit 2: Adding and Subtracting Fractions and Mixed Numbers

In this unit, your student will use fraction models and computation skills to add and subtract fractions and mixed numbers with like and unlike denominators. Your student will study the process of finding the least common multiple of two numbers in order to change unlike denominators into like denominators for addition and subtraction purposes. The problem-solving strategy in this unit is “try, check, and revise.”

Objectives:
• Add and subtract fractions with like denominators
• Find common multiples and least common multiples
• Add and subtract fractions with unlike denominators
• Add and subtract mixed numbers
• Use the try, check, and revise strategy

Lesson 1: Estimating, Adding, and Subtracting Fractions

Objectives:
• Use a number line to estimate sums and differences of fractions
• Use models and computational procedures to add and subtract fractions with like denominators

Lesson 2: Common Multiples and Least Common Multiple

Objectives:
• Determine common multiples and least common multiples of numbers

Lesson 3: Adding Fractions with Unlike Denominators

Objectives:
• Use models and computational procedures to add fractions with unlike denominators

Lesson 4: Subtracting Fractions with Unlike Denominators

Objectives:
• Use models and computational procedures to subtract fractions with unlike denominators

Lesson 5: Mid-Unit Review

Objectives:
• Review concepts presented thus far in the unit

Lesson 6: Modeling Addition and Subtraction of Mixed Numbers

Objectives:
• Use models to add and subtract mixed numbers
• Use models and computational procedures to add mixed numbers

Lesson 7: Subtracting Mixed Numbers

Objectives:
Lesson 8: More Adding and Subtracting Mixed Numbers

Objectives:
- Solve more complex problems involving the addition and subtraction of mixed numbers

Lesson 9: Try, Check, and Revise

Objectives:
- Use three steps—try, check, and revise—in order to solve problems

Lesson 10: Adding & Subtracting Fractions/Mixed Number Review (two-day lesson)

Lesson 11: Adding & Subtracting Fractions/Mixed Numbers Test

Unit 3: Multiplying Fractions and Mixed Numbers

In this unit, your student will learn to multiply a fraction by a whole number and by another fraction. Multiplication of mixed numbers is another concept that is presented in this unit. Several methods, such as using repeated addition, drawing a picture, and computing products, are used to develop the concepts of multiplying with fractions and multiplying with mixed numbers. The problem-solving strategy in this unit is “draw a picture and write a number sentence.”

Objectives:
- Multiply fractions and whole numbers
- Multiply two fractions
- Multiply mixed numbers
- Relate division to multiplication of fractions

Lesson 1: Multiplying Fractions and Whole Numbers

Objectives:
- Multiply a fraction by a whole number

Lesson 2: Estimating Products/ Multiplying Two Fractions

Objectives:
- Use compatible numbers and rounding to estimate with fractions
- Give the product of two fractions

Lesson 3: Area of a Rectangle

Objectives:
- Find the area of rectangles

Lesson 4: Multiplying Mixed Numbers

Objectives:
- Multiply mixed numbers

Lesson 5: Multiplication as Scaling
Objectives:
• Compare the size of the product to the size of one factor without multiplying to begin to consider multiplication as scaling

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Lesson 6: Relating Division to Multiplication of Fractions

Objectives:
• Divide whole numbers by fractions

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Lesson 7: Dividing Unit Fractions by Non-Zero Whole Numbers

Objectives:
• Discover the inverse relationship between multiplication and division that will help students to divide unit fractions by whole numbers

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Lesson 8: Draw a Picture and Write an Equation

Objectives:
• Use diagrams and write equations to solve problems

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Lesson 9: Multiplying Fractions and Mixed Numbers Review (two-day lesson)

Lesson 10: Multiplying Fractions and Mixed Numbers Test

Unit 4: Perimeter and Area
In this unit, your student will learn to select appropriate tools and units to measure length in the customary and metric systems. Your student will measure with greater precision by finding length to the nearest inch, half inch, quarter inch, and eighth inch in the customary system and to the nearest centimeter and millimeter in the metric system. Using formulas, your student will find the perimeter of polygons, area of squares, rectangles, and triangles, and circumference of circles. Additionally, your student will use a formula to find the area of a parallelogram and to determine the side-lengths of a parallelogram, given the area and the length of one side. This unit’s problem-solving strategy is “draw a picture and make an organized list.”

Objectives:
• Use customary units of length
• Use metric units of length
• Find perimeter of polygons
• Find the area of squares, rectangles, parallelograms, and triangles
• Determine the circumference of circles

Lesson 1: Using Customary Units of Length

Objectives:
• Choose the most appropriate units of length and measure to the nearest inch, half inch, quarter inch, or eighth inch

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Lesson 2: Using Metric Units of Length

Objectives:
• Choose the most appropriate metric unit of length and measure to the nearest centimeter and millimeter

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Lesson 3: Perimeter
Objectives:
• Find the perimeter of polygons
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Lesson 4: Area of Squares and Rectangles
Objectives:
• Find the areas of squares and rectangles by using formulas
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Lesson 5: Mid-Unit Review
Objectives:
• Review concepts presented thus far in the unit

Lesson 6: Area of Parallelograms
Objectives:
• Find the area of a parallelogram by using a formula
• Find the length of the sides of a parallelogram when the area and one side length are given
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Lesson 7: Area of Triangles
Objectives:
• Find the area of a triangle by using a formula
• Find a missing length when the area and other dimensions are known
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Lesson 8: Circles and Circumference
Objectives:
• Learn the parts of a circle and calculate circumference
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Lesson 9: Draw a Picture and Make an Organized List
Objectives:
• Make an organized list and draw a picture in order to solve problems
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Lesson 10: Perimeter and Area Review (two-day lesson)

Lesson 11: Perimeter and Area Test

Unit 5: Solids
This unit allows your student to examine solids in greater detail. To begin, your student will name the attributes of solid figures by their faces, edges, and vertices. Your student will identify two-dimensional shapes that constitute solid figures, as he examines nets that form solid figures upon folding. Also, your student will explore the views of solids from the various perspectives of looking from the top, front, and side. Determining volume in cubic units is a concept that is studied in this unit. The problem-solving strategy in this unit is “use objects and solve a simpler problem.”

Objectives:
• Identify solids
• Relate shapes and solids
• Find volume of solids
• Work with irregular shapes and solids
• Use objects and solve a simpler problem
Lesson 1: Solids

Objectives:
- Identify solid figures according to faces, edges, and vertices

Lesson 2: Relating Shapes and Solids

Objectives:
- Identify a two-dimensional representation (net) of a solid

Lesson 3: Views of Solids

Objectives:
- Identify different views of a solid

Lesson 4: Mid-Unit Review

Objectives:
- Review concepts presented thus far in the unit

Lesson 5: Volume

Objectives:
- Count cubic units and use formulas to find the volume of rectangular prisms

Lesson 6: Irregular Shapes and Solids

Objectives:
- Find the areas and volumes of irregular shapes and solids

Lesson 7: Use Objects and Solve a Simpler Problem

Objectives:
- Use objects to act out and break apart problems into simpler ones in order to reach a solution

Lesson 8: Solids Review (two-day lesson)

Lesson 9: Solids Test

Unit 6: Measurement Units

In this unit, your student will learn to select appropriate tools and units to measure capacity and weight in the customary system and volume and mass in the metric system. Using multiplication and division, your student will convert units of measure within the same system. Next your student will study elapsed time, start time, and end time, and use models and computations to solve problems involving minutes, hours, days, and weeks. Your student will also study temperature changes in both degrees Fahrenheit and degrees Celsius. The use of real measuring tools, such as thermometers, scales, and clocks, as well as real items, such as cups and daily schedules, will add meaning to your student’s study of measurement. This unit’s problem-solving strategy is “make a table.”

Objectives:
- Use customary and metric units of capacity
- Use units of weight and mass
- Convert customary and metric units
• Determine time and elapsed time
• Find temperature changes

**Lesson 1: Customary Units of Capacity**

Objectives:
• Use a variety of customary units to measure liquid volume

**Lesson 2: Metric Units of Capacity**

Objectives:
• Use metric units to measure liquid volume

**Lesson 3: Units of Weight and Mass**

Objectives:
• Use units of mass and weight to determine the amount of matter an object has and how heavy or light an object is

**Lesson 4: Mid-Unit Review**

Objectives:
• Review concepts presented thus far in the unit

**Lesson 5: Converting Customary Units**

Objectives:
• Convert customary units of measure using multiplication and division

**Lesson 6: Converting Metric Units**

Objectives:
• Convert metric units of measure using multiplication and division

**Lesson 7: Measurement Units Review (two-day lesson)**

**Lesson 8: Measurement Units Test**

**Unit 7: Solving and Writing Equations**

This unit provides your student further practice with variables. The variables in this unit are used in equations that involve addition, subtraction, multiplication, or division. Your student will learn to isolate the variable in an equation in order to solve for the unknown number. Finally, your student will identify and write an equation for the pattern or relationship that exists between pairs of numbers that are recorded within a table. This unit’s problem-solving strategy is “draw a picture and write an equation.”

Objectives:
• Solve addition, subtraction, multiplication, and division equations
• Determine patterns and equations
• Use a picture to write an equation

**Lesson 1: Solving Addition and Subtraction Equations**

Objectives:
• Solve one-step equations involving addition or subtraction

**Lesson 2: Solving Multiplication and Division Equations**
Objectives:
• Solve one-step equations involving multiplication or division

Lesson 3: Patterns and Equations
Objectives:
• Complete a table of values for an equation or write an equation to describe the relationship between pairs of numbers in a table

Lesson 4: Draw a Picture and Write an Equation
Objectives:
• Draw diagrams or pictures and write equations to solve problems

Lesson 5: Solving and Writing Equations Review (two-day lesson)

Lesson 6: Solving and Writing Equations Test

Unit 8: Equations and Graphs
In this unit, your student will study integers. A number line will give your student a visual of the sequence of positive and negative numbers and develop hers understanding of integer values. Your student will use number lines on a coordinate plane to graph ordered pairs of integers. The study of integers will also include determining the distance between two integers and generating a list of ordered pairs, given the values of one variable in a given equation. The student will also learn to collect data from surveys and to display and interpret data in various types of graphs.

Objectives:
• Understand integers
• Work with ordered pairs
• Find distances on number lines and the coordinate plane
• Graph patterns and equations
• Make and interpret various types of graphs

Lesson 1: Understanding Integers
Objectives:
• Read and write integers and represent them on a number line

Lesson 2: Ordered Pairs
Objectives:
• Identify and graph points on a coordinate plane

Lesson 3: Distances on Number Lines and the Coordinate Plane
Objectives:
• Use number lines and the coordinate plane to find distances involving positive and negative numbers

Lesson 4: Graphing Patterns and Equations
Objectives:
• Make a table of x- and y-values for an equation
• Use the ordered pairs to graph the equation
• Create and interpret coordinate graphs

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Lesson 5: More Patterns and Graphing

Objectives:
• Use coordinate graphs to explore the relationship between two rules

Lesson 6: Data from Surveys/Making Line Plots

Objectives:
• Collect data and record data in frequency tables and line plots
• Make a line plot from data in a frequency table
• Interpret the results

Lesson 7: Measurement Data

Objectives:
• Use the information in a line plot to solve problems involving the data

Lesson 8: Bar Graphs and Picture Graphs

Objectives:
• Make and interpret bar graphs, double-bar graphs, and picture graphs

Lesson 9: Equations and Graphs Review (two-day lesson)

Lesson 10: Equations and Graphs Test
MATH 6 A
Math 6 A
In this course, the student will use the four operations with decimals, fractions, and integers. The student will study patterns and variables as a precursor to solving equations and inequalities. The study of number theory will help the student understand divisibility, prime numbers, factors, and multiples. The student will learn about ratios, proportions, and percents and apply them in scale drawings.

Throughout the course, the student will engage in many problem-solving strategies, make real-world connections, and participate in mathematical discussions with peers.

Unit 1: Focus on Success in Math 6
In this unit, you will focus on ways to think about and approach mathematics. You will learn how to set personal goals, establish study strategies that reduce anxiety, and review ways to be an active learner. In addition, this unit introduces the various resources that are available to you in your Math 6 course.

Objectives:
• Assess personal readiness for studying and learning
• Recognize the importance of personal ownership of learning
• Reflect on personal strengths and weaknesses in order to improve mathematical performance
• Use resources to set goals

Lesson 1: Looking Ahead
Objectives:
• Describe the characteristics of quality goals
• Set goals for success in mathematics
• Reflect on strengths, weaknesses, and how to apply them
• Recognize the importance of personal effort to learning

Lesson 2: Gearing Up
Objectives:
• Identify the various resources that you can use in the course
• Modify goals to include using resources effectively

Unit 2: Whole Numbers and Decimals
In this unit, you will learn how to identify the place value of whole numbers and decimals, which you will then apply to comparing and ordering these types of numbers. You will apply estimation strategies as well as the properties of addition and multiplication as tools for solving problems. Also, you will learn how to use the order of operations to simplify numerical expressions. You will find the answers of addition, subtraction, multiplication, and division problems using whole numbers and decimals. Finally, you will learn and apply the four-step problem-solving strategy.

Objectives:
• Identify the place values of a given whole number or decimal, and use the value of the number or decimal to compare and order the numbers
• Apply the properties of addition and multiplication to solve problems
• Apply the order of operations to evaluate numerical expressions
• Perform operations with multi-digit whole numbers and decimals

Lesson 1: Identifying the Value of Whole Numbers
Objectives:
• Identify the place value of a digit in the given number
• Compare the value of two whole numbers

Lesson 2: Whole Number Estimation
Objectives:
• Apply strategies for estimation to find sums, differences, products, or quotients
Lesson 3: Computing with Whole Numbers

Objectives:
• Calculate to find the sum, difference, product, or quotient of two whole numbers

Lesson 4: Properties of Addition and Multiplication

Objectives:
• Apply the Commutative Property, Associative Property, or Identity Property of Addition or Multiplication to solve computation problems

Lesson 5: Order of Operations in Numerical Expressions

Objectives:
• Apply the order of operations to solve numerical expressions

Lesson 6: Whole Numbers and Operations Mid-Unit Review

Objectives:
• Utilize estimation strategies, properties of operations, and the order of operations to solve computation problems with whole numbers

Lesson 7: Identifying the Value of Decimals

Objectives:
• Identify the value of a specified digit in a decimal
• Apply the rules of rounding to decimals

Student Lesson Activity:

Complete the following activities.
2. Complete the even-numbered problems from 12–42 on pp. 24–25 in Mathematics: Course 1 to practice writing decimals in the different forms and rounding decimals.
3. Complete problems 46–50 on p. 25 in Mathematics: Course 1 to practice the skills you have learned previously in this course.

Lesson 8: Comparing and Ordering Decimals

Objectives:
• Compare the value of decimals
• Identify the order of decimals based on their numerical value

Lesson 9: Decimal Addition and Subtraction

Objectives:
• Identify sums and differences by adding and subtracting decimals

Lesson 10: Decimal Multiplication

Objectives:
• Identify the product when a decimal is multiplied by a whole number or another decimal

Lesson 11: Multiplying and Dividing Decimals by Powers of Ten

Objectives:
• Identify the product or quotient when multiplying or dividing a decimal by a power of ten

Lesson 12: Decimal Division

Objectives:
• Identify the quotient when dividing a decimal by a whole number or another decimal

Lesson 13: Problem Solving: The Four-Step Plan
Objectives:
• Apply the four-step plan to solve word problems

Lesson 14: Whole Numbers and Decimals Review
Objectives:
• Identify how to use place value and computation skills in solving a real-world problem
• Find the answers to computation problems involving whole numbers and decimals

Lesson 15: Whole Numbers and Decimals Unit Test

Unit 3: Data and Graphs
In this unit, you will learn how to calculate the mean, median, mode, and range for a given set of data. You will also practice reading and creating a variety of visual representations of data, such as frequency charts, line plots, line graphs, bar graphs, box-and-whisker plots, double bar graphs, histograms, and stem-and-leaf plots. In addition, you will identify how graphs and statistics can be misleading. Finally, you will learn what makes a statistical question. This unit’s portfolio assignment is to develop a double-bar graph.

Objectives:
• Calculate to find the mean, median, mode, and range when given a specified set of data
• Create a double-bar graph
• Interpret data from a visual representation, such as a bar graph, histogram, or box-and-whisker plot
• Explain how graphs and statistics can be misleading

Lesson 1: Mean and Outliers
Objectives:
• Compute the mean when given a set of numbers

Lesson 2: Median and Mode
Objectives:
• Identify the median and mode of a given set of numbers
• Explain which measure of central tendency is best in a given situation

Lesson 3: Tables and Plots (two-day lesson)
Objectives:
• Identify the range, middle value, upper value, and lower value of a set of numbers
• Read a frequency table, line plot, or a box-and-whisker plot to find the mean, median, mode, or range

Lesson 4: Bar Graphs and Line Graphs (two-day lesson)
Objectives:
• Create a double bar graph when given a set of data
• Create and read a single line graph

Lesson 5: Histograms
Objectives:
• Identify the value of a bar in a given histogram

Lesson 6: Shape and Variability of Data
Objectives:
• Find the mean and range of a given data set
• Identify the degree of variability in a chart, graph, or plot

Lesson 7: Stem-and-Leaf Plots
Objectives:
• Order data to create a stem-and-leaf plot
Lesson 8: Misleading Graphs and Statistics

Objectives:
- Analyze graphs for misleading information

Lesson 9: Statistical Questions

Objectives:
- Differentiate between a statistical question and a question that is not statistical

Lesson 10: Data and Graphs Review

Objectives:
- Explain preferred methods for representing data and identify real-world scenarios that could be represented in this manner

Lesson 11: Data and Graphs Unit Test

Unit 4: Patterns and Variables

In this unit, you will be learning about patterns, expressions, and equations. First, you will be discovering numerical patterns and identifying the rule for the pattern, followed by using exponents to simplify certain numerical expressions. Then, you will be using variables to represent unknown numbers in expressions and equations. Next, you will learn what an equation is and the different strategies to solve it. Then, you will learn another property, the Distributive Property, which provides another strategy for solving more complex computation problems. Finally, you will continue to develop your problem-solving skills by submitting a portfolio assignment in which you will be writing an equation and solving it after reading a word problem.

Objectives:
- Identify numerical patterns and their rules
- Simplify a numerical expression through the use of exponents
- Evaluate expressions using the given values
- Apply the Distributive Property to solve computation problems
- Generate an equation and use it to solve a problem

Lesson 1: Patterns, Rules, and Numerical Expressions

Objectives:
- Identify numerical patterns
- Define the rule for a sequence

Lesson 2: What Is an Exponent?

Objectives:
- Identify the exponent for a given expression
- Apply the order of operations to solve expressions with exponents

Lesson 3: Scientific Notation

Objectives:
- Identify the standard and scientific forms for a numerical value

Lesson 4: Algebraic Expressions

Objectives:
- Differentiate between a numerical and algebraic expression
- Evaluate algebraic expressions for the given quantity

Lesson 5: From Words to Algebraic Expressions

Objectives:
- Translate words into algebraic expressions

Lesson 6: What Are Equations?
Objectives:
• Calculate the answer to a one-step question by utilizing mental math strategies

Lesson 7: Equations with Addition
Objectives:
• Demonstrate the Subtraction Property of Equality when solving equations with addition

Lesson 8: Equations with Subtraction
Objectives:
• Demonstrate the Addition Property of Equality when solving equations with subtraction

Lesson 9: Equations with Multiplication and Division
Objectives:
• Demonstrate the Division Property of Equality when solving an equation with multiplication
• Demonstrate the Multiplication Property of Equality when solving an equation with division

Lesson 10: Distributive Property
Objectives:
• Apply the distributive property in order to generate equivalent expressions

Lesson 11: Problem Solving and Equations (two-day lesson)
Objectives:
• Develop and solve an equation to solve a word problem

Lesson 12: Patterns and Variables Review
Objectives:
• Identify numerical patterns and their rules
• Simplify a numerical expression through the use of exponents
• Evaluate expressions using the given values
• Apply the Distributive Property to solve computation problems
• Generate an equation and use it to solve problems

Lesson 13: Patterns and Variables Unit Test

Unit 5: Number Theory and Fractions
In this unit, you will be applying your multiplication and division skills to identify factors, prime factorization, and multiples of numbers. Also, you will apply the Distributive Property to create equivalent numerical and algebraic expressions. In the area of fractions, you will apply your skills of finding factors and multiples to find equivalent fractions, simplify fractions, and identify the least common denominator. You will also practice converting between various forms, such as mixed numbers into improper fractions and fractions into decimals.

Objectives:
• Identify factors of numbers and apply them to identify the prime factorization of numbers
• Use factors and multiples to find the least common denominator
• Generate equivalent fractions and expressions
• Convert between forms of numbers, such as mixed numbers into fractions and fractions into decimals
• Compare and order fractions and decimals

Lesson 1: Divisibility and Mental Math
Objectives:
• Identify whether a number is divisible by a second number
• Identify whether a number is even or odd

**Lesson 2: Prime Time (two-day lesson)**

Objectives:
• Distinguish between prime and composite numbers
• Identify the factors of a composite number

**Lesson 3: Greatest Common Factor**

Objectives:
• Identify the greatest common factor of two or more numbers

**Lesson 4: Writing Expressions that Are Equivalent (two-day lesson)**

Objectives:
• Generate equivalent numerical and algebraic expressions using the Distributive Property

**Lesson 5: Equivalent Fractions**

Objectives:
• Identify fractions that are equivalent to the original fraction

**Lesson 6: Fractions Greater Than 1**

Objectives:
• Convert mixed numbers into improper fractions and improper fractions into mixed numbers

**Lesson 7: Multiples**

Objectives:
• Identify the least common multiple of at least two numbers

**Lesson 8: Comparing and Ordering Fractions (two-day lesson)**

Objectives:
• Compare the value of the given fractions and mixed numbers
• Identify the numerical order of a given set of fractions and/or mixed numbers

**Lesson 9: Fractions and Decimals (two-day lesson)**

Objectives:
• Convert decimals into fractions and fractions into decimals
• Identify the order of a set of fractions and decimals from least to greatest and greatest to least

**Lesson 10: Number Theory and Fractions Review**

Objectives:
• Identify factors of numbers and apply them to identify the prime factorization of numbers
• Use factors and multiples to find the least common denominator
• Generate equivalent fractions and expressions
• Convert between forms of numbers, such as mixed numbers into fractions and fractions into decimals
• Compare and order fractions and decimals

**Lesson 11: Number Theory and Fractions Unit Test**

**Unit 6: Adding and Subtracting Fractions**

In this unit, you will be rounding and estimating sums and differences of fractions and mixed numbers. Then you will calculate the actual sums and differences of fractions with like and unlike denominators. Next, you will apply your skills in solving addition and subtraction problems with mixed numbers, sometimes needing to rename the mixed number. Also, you
will be solving addition and subtraction equations with fractions and mixed numbers. Finally, you will solve problems that use elapsed time, and apply these skills by completing a portfolio assignment with real-world scenarios.

Objectives:
- Estimate sums and differences of fractions and whole numbers
- Calculate the sums and differences of fractions and mixed numbers
- Identify the solution to an equation with fractions
- Calculate the elapsed time in a given scenario

**Lesson 1: Estimating Fractions/Mixed Numbers**

Objectives:
- Demonstrate rounding fractions and mixed numbers to the nearest one-half
- Calculate the estimated sum or difference of fractions and mixed numbers

**Lesson 2: Add and Subtract Fractions with Like Denominators**

Objectives:
- Find the sum or difference when two or more fractions with like denominators are added or subtracted.

**Lesson 3: Addition of Fractions with Unlike Denominators**

Objectives:
- Calculate the sum of two or more fractions with unlike denominators added together

**Lesson 4: Subtraction of Fractions with Unlike Denominators**

Objectives:
- Calculate the difference of two fractions with unlike denominators

**Lesson 5: Adding and Subtracting Fractions Mid-Unit Review**

Objectives:
- Add and subtract fractions with like and unlike denominators

**Lesson 6: Addition with Mixed Numbers**

Objectives:
- Calculate the sum when adding with mixed numbers.

**Lesson 7: Subtraction with Mixed Numbers (two-day lesson)**

Objectives:
- Calculate the difference when subtracting with mixed numbers

**Lesson 8: Solving Equations with Fractions (two-day lesson)**

Objectives:
- Calculate the answer to an equation with fractions

**Lesson 9: Elapsed Time (two-day lesson)**

Objectives:
- Calculate the time that has elapsed between the start and end times

**Lesson 10: Adding and Subtracting Fractions Review**

Objectives:
- Explain the method for solving problems with addition and subtraction of fractions and mixed numbers.

**Lesson 11: Adding and Subtracting Fractions Unit Test**

Unit 7: Multiplying and Dividing Fractions
In this unit, you will apply your multiplication and division skills to fractions and mixed numbers. First, you will learn how to multiply whole numbers, fractions, and mixed numbers. Next, you will learn how to identify the reciprocal of a number and use that when dividing fractions and mixed numbers. Then you will use your problem-solving skills to solve equations with fractions. Finally, you will learn about the customary system of measurement and how to convert from one unit to another.

Objectives:
- Calculate the product of whole numbers, fractions, and mixed numbers
- Identify the reciprocal of a fraction
- Calculate the quotient of fractions and mixed numbers
- Identify customary units of measurement
- Convert between units of measurement in the customary system

Lesson 1: Multiplying a Whole Number and a Fraction

Objectives:
- Calculate the product of a whole number and a fraction

Lesson 2: Multiplying Two or More Fractions

Objectives:
- Calculate the product of two or more fractions

Lesson 3: Multiplication with Mixed Numbers

Objectives:
- Calculate the product of mixed numbers

Lesson 4: Multiplication of Fractions Review

Objectives:
- Calculate the product of fractions, whole numbers, and mixed numbers

Lesson 5: Division with Fractions (two-day lesson)

Objectives:
- Identify the reciprocal of a given fraction
- Calculate the quotient of two fractions

Lesson 6: Division with Mixed Numbers

Objectives:
- Calculate the quotient of mixed numbers

Lesson 7: Solving Equations with Fractions

Objectives:
- Calculate the answer to an equation with fractions through multiplication

Lesson 8: What Is the Customary System?

Objectives:
- Identify the best customary unit for a given object

Lesson 9: Changing Units in the Customary System (two-day lesson)

Objectives:
- Convert measurements written in customary units into other customary units

Lesson 10: Multiplying and Dividing Fractions Review

Objectives:
- Calculate the product of whole numbers, fractions, and mixed numbers
- Identify the reciprocal
- Calculate the quotient of fractions and mixed numbers
- Identify customary units of measurement
- Calculate how to convert between units of measurement in the customary system

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Lesson 11: Multiplying and Dividing Fractions Test
MATH 6 B
Math 6 B

In this course, the student will explore the foundations of geometry, such as classifying polygons, and use measurement skills to find the perimeter, area, and volume of geometric figures. Then the student will study basic probability and explore permutations. By the end of the course, the student will work with integers using all four operations, solve equations and inequalities, and solve problems using the Pythagorean Theorem.

Unit 1: Ratios, Proportions, and Percents

In this unit, you will identify and write ratios to show the comparison between two amounts. Then you will use what you learned about ratios to generate equivalent ratios, find unit rates, and solve proportions. Next, you will learn how to write a percent when given a fraction or decimal. Finally, you will apply what you learned about percents to find the percent of a number, interpret circle graphs, and calculate various percentages found in everyday living.

Objectives:
- Identify the ratio of two amounts in simplest form
- Create and solve proportions to identify the missing amount
- Solve problems involving ratios, unit rates, and proportions
- Calculate the percent of a number
- Solve problems involving percents; use circle graphs to solve problems

Lesson 1: Ratios and Equivalent Ratios (two-day lesson)

Objectives:
- Identify the ratio for a given situation
- Identify at least one equivalent ratio for the given ratio

Lesson 2: Understanding and Using Unit Rates (two-day lesson)

Objectives:
- Calculate the unit rate given two amounts
- Find and use unit rates and unit costs

Lesson 3: Proportions

Objectives:
- Determine whether or not two ratios form a proportion
- Identify the missing value in a proportion

Lesson 4: Scale Drawings

Objectives:
- Calculate the distance of an actual item or the model using a scale

Lesson 5: Putting It All Together: Ratios, Rates, Proportions

Objectives:
- Calculate ratios, unit rates, equivalent rates, and the missing value in proportions

Lesson 6: Writing Percents, Fractions, and Decimals (two-day lesson)

Objectives:
- Identify the decimal, fractional form, and percent form for a given value
- Ordering percents, fractions, and decimals
Lesson 7: What Is the Percent of that Number? (two-day lesson)

Objectives:
- Calculate a percentage of a given number
- Identify the whole number when given the part and percentage

Lesson 8: Circle Graphs

Objectives:
- Use a circle graph to solve problems

Lesson 9: Using Percents in Everyday Life

Objectives:
- Calculate sales tax, amount to tip, discounts, and sale price

Lesson 10: Ratios, Proportions, and Percents Review

Objectives:
- Use your knowledge of ratios, rates, proportions, and percents to solve problems
- Review Key Words and assessments from the unit

Lesson 11: Ratios, Proportions, and Percents Unit Test

Unit 2: Tools of Geometry

In this unit, you will classify lines, angles, and polygons by their size, shape, or orientation. You will calculate the missing angle measure when given the remaining angle measurements, particularly in a triangle or quadrilateral. You will distinguish between shapes that are congruent and shapes that are similar. Next, you will learn about line symmetry. Then, you will learn about transformations, which include translations, reflections, and rotations.

Objectives:
- Classify types of lines, angles, triangles, polygons, and quadrilaterals when given a figure
- Distinguish between congruent and similar figures
- Identify lines of symmetry
- Identify transformations

Lesson 1: Points, Segments, Rays, Lines, and Planes

Objectives:
- Identify the specified point, segment, ray, line, or plane when given a figure

Lesson 2: Types of Angles

Objectives:
- Classify the type of angle and/or the name of the angle when given a figure

Lesson 3: Special Angles (two-day lesson)

Objectives:
- Identify and classify special angle pairs in a figure
• Calculate the measure of an angle in a special angle pair

Lesson 4: Types of Triangles (two-day lesson)

Objectives:
• Classify a triangle based on its angle measures or by its sides

Lesson 5: Points, Lines, Angles, and Triangles Review

Objectives:
• Classify lines, angles, and triangles when given a figure

Lesson 6: Classifying Quadrilaterals and Other Polygons (two-day lesson)

Objectives:
• Classify a polygon based on the number and length of its sides
• Determine missing angle measures in a quadrilateral

Lesson 7: Figures that are Congruent or Similar

Objectives:
• Classify figures as being congruent, similar, or neither

Lesson 8: Line Symmetry

Objectives:
• Identify lines of symmetry

Lesson 9: Translations, Reflections, and Rotations

Objectives:
• Classify transformations as translations, reflections, or rotations

Lesson 10: Tools of Geometry Review (two-day lesson)

Objectives:
• Classify lines, angles, and figures
• Identify congruent and similar figures
• Identify lines of symmetry
• Classify transformations

Lesson 11: Tools of Geometry Unit Test

Unit 3: Geometry and Measurement

In this unit, you will learn the different units of measurement in the metric system and convert among units. Then, you will find the perimeter and area of polygons. Next, you will find the perimeter and area of circles. Later in the unit, you will learn about three-dimensional figures and how to find the surface area and volume of rectangular prisms. As your portfolio assessment, you will be required to locate 5 circles and 5 rectangular prisms in your home, and use their dimensions to calculate circumference, area, and volume.

Objectives:
• Identify metric units and convert a value from one unit to another within the same category
• Calculate the perimeter and area of polygons
• Calculate the circumference and area of a circle
• Calculate the surface area and volume of prisms

Lesson 1: Metric Units

Objectives:
• Identify the best metric unit of measure for a given situation

Lesson 2: Conversions in the Metric System

Objectives:
• Calculate a measurement in a metric unit, given the measurement in another metric unit in the same category
Lesson 3: Perimeters and Areas of Rectangles and Squares

Objectives:
- Calculate the perimeter and area of rectangles and squares

Lesson 4: Areas of Parallelograms, Trapezoids, and Triangles (two-day lesson)

Objectives:
- Calculate the area of parallelograms, trapezoids, and triangles

Lesson 5: Finding the Area of Composite Figures

Objectives:
- Find the area of a composite figure

Lesson 6: Mid-Unit Review (two-day lesson)

Objectives:
- Identify the best metric unit of measure for a given situation
- Calculate the perimeter or area of a figure given the formula

Lesson 7: Circumference of a Circle

Objectives:
- Calculate the circumference of a circle

Lesson 8: Area of a Circle

Objectives:
- Calculate the area of a circle when given the length of the radius or diameter.

Lesson 9: Three-Dimensional Figures

Objectives:
- Name three-dimensional figures

Lesson 10: Prisms and Surface Area

Objectives:
- Find the surface area of prisms

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Lesson 11: Rectangular Prisms and Volume (two-day lesson)

Objectives:
- Calculate the volume of a rectangular prism

Lesson 12: Geometry and Measurement Review (two-day lesson)

Objectives:
- Calculate the perimeter, area, surface area, and/or volume of a given figure
- Name two-dimensional and three-dimensional figures
- Identify metric units and convert from one unit to another

Lesson 13: Geometry and Measurement Unit Test

Unit 4: Integers

In this unit, you will be working with integers. You will learn what an integer is and how to find the absolute value of integers. Then you will compare integers as well as order them from least to greatest. Next, you will work on your computation skills by adding, subtracting, multiplying, and dividing integers. Then you will solve equations with integers. Finally, you will learn real-world applications for integers and complete a portfolio assignment in which you will not only answer questions in regards to integers, but also find the mean and median of the data as well as graphing the data.
Objectives:
- Identify the absolute value of an integer and locate where integers fall on the number line
- Compare and order a set of integers
- Calculate the sum, difference, product, and quotient of integers
- Solve equations with integers

Lesson 1: What Is an Integer?
Objectives:
- Locate an integer on the number line
- Identify the absolute value of an integer

Lesson 2: Comparing and Ordering Integers
Objectives:
- Compare two integers
- Identify the order of a set of integers

Lesson 3: Addition of Integers
Objectives:
- Calculate the sum of integers

Lesson 4: Subtraction of Integers
Objectives:
- Calculate the difference of integers

Lesson 5: Multiplication of Integers
Objectives:
- Calculate the product of integers

Lesson 6: Division of Integers
Objectives:
- Calculate the quotient of integers

Lesson 7: Solving Equations with Integers
Objectives:
- Solve equations with integers

Lesson 9: Integers Review
Objectives:
- Identify the absolute value of an integer and locate where integers fall on the number line
- Compare and order a set of integers from least to greatest
- Calculate the sum, difference, product, and quotient of integers
- Solve equations with integers

Lesson 10: Integers Unit Test

Unit 5: Graphing, Equations, and Inequalities
In this unit, you will be learning about graphing, functions, two-step equations, and inequalities. First, you will plot points in any of the four quadrants on the coordinate plane, and draw polygons in the coordinate plane when given a set of ordered pairs. Then you will identify missing values in a function table, find the rule for the function, and graph it. Next, you will solve two-step equations. Finally, you will write, graph, and solve inequalities. For your portfolio assignment, you will apply your knowledge of graphing polygons, functions, and inequalities.

Objectives:
- Locate and name the ordered pair for points on the coordinate plane
- Write rules and equations for functions
- Evaluate functions
- Identify the solution to a two-step equation
Lesson 1: Understanding the Coordinate Plane (two-day lesson)

Objectives:
• Name points by their ordered pairs
• Graph points in the coordinate plane

Lesson 2: Using Rational Numbers on the Coordinate Plane (two-day lesson)

Objectives:
• Plot ordered pairs consisting of rational numbers on a coordinate plane

Lesson 3: Finding Distances on the Coordinate Plane

Objectives:
• Calculate the distance between two points on a coordinate plane
• Create a polygon in the coordinate plane from a set of ordered pairs

Lesson 4: What Are Functions? (two-day lesson)

Objectives:
• Identify the output or y-value when given an input or x-value and the rule
• Calculate the rule when given the input and output
• Graph the function on a coordinate plane

Lesson 5: Independent and Dependent Variables

Objectives:
• Identify the independent and dependent variable in a function
• Generate an equation for the function

Lesson 6: Graphing and Functions Review

Objectives:
• Discuss the definition of a function and identify an example to support the definition

Lesson 7: Solving Equations with Two Steps

Objectives:
• Solve two-step equations
• Use two-step equations to solve problems

Lesson 8: Writing and Graphing Inequalities (two-day lesson)

Objectives:
• Represent a situation by writing and/or graphing an inequality

Lesson 9: Solving One-Step Inequalities

Objectives:
• Solve one-step inequalities

Lesson 10: Graphing, Equations, and Inequalities Review (two-day lesson)

Objectives:
• Locate and name the ordered pair for points on the coordinate plane
• Write rules and equations for functions
• Evaluate functions
• Identify the solution to a two-step equation
• Name, graph, and solve inequalities
Lesson 11: Graphing, Equations, and Inequalities Unit Test

Unit 6: Exploring Probability

In this unit, you will be developing your skills in the area of probability. You will learn strategies to count the number of possible outcomes and then apply these skills to identify the probability of an event. Then you will be calculating the theoretical and experimental probability of events. Next, you will use your prediction skills to predict the probability of an event using data. Finally, you will identify the probability of independent events, such as flipping a coin twice.

Objectives:
- Calculate the total number of outcomes
- Calculate the theoretical and/or experimental probability
- Predict the probability of an event based on data
- Calculate the probability of independent events

Lesson 1: Counting Outcomes

Objectives:
- Identify the total number of possible outcomes using either a tree diagram or the counting principle

Lesson 2: What Is Probability?

Objectives:
- Identify the probability that an event will or will not occur

Lesson 3: Theoretical and Experimental Probability (two-day lesson)

Objectives:
- Identify the theoretical and experimental probability of a situation
- Conduct a series of experiments and communicate their findings in writing

Lesson 4: Using Data to Make Predictions

Objectives:
- Make a prediction based on data

Lesson 5: Probability of Independent Events

Objectives:
- Calculate the probability of independent events for a given situation

Lesson 6: Exploring Probability Review

Objectives:
- Calculate the total number of outcomes
- Calculate theoretical and/or experimental probability
- Predict the probability of an event based on data
- Calculate the probability of independent events

Lesson 7: Exploring Probability Unit Test
MATH 7 A
Math 7 A
In this course, the student will use the four operations with decimals, fractions, and integers to solve equations and inequalities. The student will simplify expressions with exponents and rational numbers. In the study of number theory, the student will further strengthen his or her skills as he solves problems involving factors and multiples by using divisibility tests and prime factorization. The student will apply ratios, rates, proportions, and scale drawings to solve various problems and then solve percent problems, including percent of change and commission.

Unit 1: Focus on Success in Math 7
In this unit, you will focus on ways to think about and approach mathematics. You will learn how to set personal goals, establish study strategies that reduce math anxiety, and review ways to be an active learner. In addition, this unit introduces the various resources that are available to you in your Math 7 course.

Objectives:
- Reflect on personal strengths and weaknesses in order to improve mathematical performance
- Recognize the importance of personal ownership of learning
- Assess personal readiness for study and learning
- Use resources to assist with goal-setting and attainment

Lesson 1: Planning Ahead
Objectives:
- Describe the characteristics of quality goals
- Set goals for success in mathematics
- Reflect on strengths, weaknesses, and how to apply them
- Recognize the importance of being an active learner

Lesson 2: Resources for Success
Objectives:
- Identify the various resources that you can use in the course
- Modify goals to include using resources effectively

Unit 2: Decimals and Integers
In this unit, you will learn to add, subtract, multiply, and divide decimals. You will learn how to align decimals to find sums and differences and how to properly place decimal points in products and quotients. You will apply properties of addition and multiplication as tools for solving problems using mental math. You will perform basic operations using a set of numbers called integers, which includes both positive and negative numbers. You will also learn how to represent a large set of numbers with just one number, called a measure of central tendency (such as mean, median, or mode). Finally, you will practice constructing and interpreting box-and-whisker plots to analyze distribution of data.

Objectives:
- Perform operations on decimals
- Perform operations on integers
- Calculate measures of central tendency

Lesson 1: Adding and Subtracting Decimals
Objectives:
- Add and subtract decimals
- Apply properties of addition to add decimal numbers using mental math

Lesson 2: Multiplying Decimals
Objectives:
- Multiply decimals
- Apply properties of multiplication to multiply decimal numbers using mental math

Lesson 3: Dividing Decimals
Objectives:
• Divide decimals

**Lesson 4: Comparing and Ordering Integers**

Objectives:
• Compare and order integers
• Find absolute values

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**Lesson 5: Adding Integers**

Objectives:
• Add integers with the same sign
• Add integers with different signs

**Lesson 6: Subtracting Integers**

Objectives:
• Subtract integers with the same sign
• Subtract integers with different signs

**Lesson 7: Multiplying and Dividing Integers**

Objectives:
• Multiply and divide integers with the same sign
• Multiply and divide integers with different signs

**Lesson 8: Mean, Median, Mode, and Range**

Objectives:
• Describe data using mean, median, mode, and range

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**Lesson 9: Box-and-Whisker Plots**

Objectives:
• Construct and interpret box-and-whisker plots

**Lesson 10: Decimals and Integers Unit Review (two-day lesson)**

Objectives:
• Decide which strategies you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

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**Lesson 11: Decimals and Integers Unit Test**

**Unit 3: Exponents, Factors, and Fractions**

In this unit, you will begin working with exponents and learning how to simplify expressions using the order of operations. You will work with fractions of all sorts—both proper and improper—as well as mixed numbers. You will learn how to compare and order fractions and how to write them in simplest form. You will also discover rules and shortcuts for converting fractions to decimals and decimals to fractions.

Objectives:
• Evaluate exponents
• Compare fractions
• Convert between fractions and decimals

**Lesson 1: Exponents and Order of Operations (two-day lesson)**

Objectives:
• Write and simplify expressions with exponents
Lesson 2: Divisibility Tests

Objectives:
• Apply divisibility rules to integers

Lesson 3: Prime Factorization

Objectives:
• Determine factors and multiples of numbers by applying prime factorization

Lesson 4: Simplifying Fractions

Objectives:
• Determine equivalent fractions by simplifying

Lesson 5: Comparing and Ordering Fractions

Objectives:
• Compare and order fractions

Lesson 6: Mixed Numbers and Improper Fractions

Objectives:
• Convert between improper fractions and mixed numbers

Lesson 7: Mid-Unit Review

Objectives:
• Review the concepts, keywords, and all important concepts covered so far in this unit

Lesson 8: Fractions and Decimals

Objectives:
• Convert between fractions and decimals

Lesson 9: Rational Numbers

Objectives:
• Compare and order rational numbers

Lesson 10: Scientific Notation

Objectives:
• Convert numbers between scientific notation and standard form

Lesson 11: Exponents, Factors, and Fractions Review (two-day lesson)

Objectives:
• Decide which strategies you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, key words, formulas, and other important information that may be covered on this exam

Lesson 12: Exponents, Factors, and Fractions Unit Test

Unit 4: Operations with Fractions and Rational Numbers
In this unit, you will perform operations—addition, subtraction, multiplication and division—on rational numbers like fractions and mixed numbers. You will begin by extending your estimation skills to include problems involving fractions and mixed numbers. Finally, you will learn to convert units of measure in both the standard and metric systems.

Objectives:
- Add and subtract rational numbers
- Multiply and divide rational numbers
- Convert standard and metric units of measure

Lesson 1: Estimating With Fractions and Mixed Numbers

Objectives:
- Estimate sums, differences, products, and quotients of fractions

Lesson 2: Adding and Subtracting Fractions

Objectives:
- Add and subtract fractions and solve problems involving fractions

Lesson 3: Adding and Subtracting Mixed Numbers

Objectives:
- Add and subtract mixed numbers

Lesson 4: Adding and Subtracting Rational Numbers

Objectives:
- Add and subtract rational numbers

Lesson 5: Multiplying Fractions and Mixed Numbers

Objectives:
- Multiply fractions and mixed numbers

Lesson 6: Multiplication of Rational Numbers

Objectives:
- Multiply rational numbers

Lesson 7: Dividing Fractions and Mixed Numbers

Objectives:
- Divide fractions and mixed numbers

Lesson 8: Division of Rational Numbers

Objectives:
- Divide rational numbers

Lesson 9: Changing Units in the Customary System

Objectives:
- Convert standard units of length, weight, and capacity
Lesson 10: Changing Units in the Metric System

Objectives:
- Convert metric units of length, weight, and capacity

Lesson 11: Operations with Fractions Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, key words, formulas, and all important concepts that may be covered on this exam

Lesson 12: Operations with Fractions Unit Test

Unit 5: Equations and Inequalities

In this unit, you'll be using basic algebraic skills to solve an equation for an unknown quantity called a variable. You'll work up from simple one-step equations to more advanced two-step equations. Then you will solve inequalities and represent the solutions on a number line.

Objectives:
- Write algebraic expressions
- Solve one-step and two-step equations
- Solve and graph inequalities

Lesson 1: Evaluating and Writing Algebraic Expressions

Objectives:
- Write and evaluate algebraic expressions

Lesson 2: Simplifying Expressions (two-day lesson)

Objectives:
- Apply the Distributive Property to expand expressions
- Simplify expressions by combining like terms and applying order of operations

Lesson 3: Using Number Sense to Solve Equations

Objectives:
- Solve one-step equations using substitution, mental math, and estimation

Lesson 4: Solving One-Step Equations by Adding/Subtracting

Objectives:
- Solve equations by adding or subtracting

Lesson 5: Solving One-Step Equations by Multiplying/Dividing

Objectives:
- Solve equations by multiplying or dividing
Lesson 6: Exploring Two-Step Problems

Objectives:
- Write and evaluate expressions with two operations
- Solve two-step equations using number sense

Lesson 7: Solving Two-Step Equations

Objectives:
- Solve two-step equations using inverse operations

Lesson 8: Solving Equations of the Form \( p(x + q) = r \)

Objectives:
- Apply the Distributive Property to solve equations

Lesson 9: Graphing and Writing Inequalities

Objectives:
- Graph and write algebraic inequalities

Lesson 10: Solving Inequalities by Adding and Subtracting

Objectives:
- Solve inequalities by adding or subtracting

Lesson 11: Solving Inequalities by Multiplying or Dividing

Objectives:
- Solve inequalities by multiplying or dividing

Lesson 12: Solving Two-Step Inequalities

Objectives:
- Solve two-step inequalities and graph the solutions on a number line

Lesson 13: Equations and Inequalities Review (two-day lesson)

Objectives:
- Discuss the meaning of an equation and how to keep an equation balanced
- Review notes, Key Words, and homework
- Use online tools to practice skills studied in this unit

Lesson 14: Equations and Inequalities Unit Test

Unit 6: Ratios, Rates, and Proportions

A ratio is a comparison of two things. A proportion is an equation stating that two ratios are equivalent to each other. In this unit, you will use ratios and proportions to find unknown quantities. At the end of the unit, you will complete a portfolio project where you will design a scale drawing of your dream room.

Objectives:
- Simplify and use ratios
- Use unit rates
- Solve proportions
- Use and create similar figures
Lesson 1: Ratios
Objectives:
• Create ratios to compare given quantities
• Recognize equivalent ratios

Lesson 2: Unit Rates and Proportional Reasoning
Objectives:
• Apply proportional reasoning to compute unit rates and unit costs

Lesson 3: Unit Rates and Ratios of Fractions
Objectives:
• Apply proportional reasoning to compute unit rates associated with ratios of fractions

Lesson 4: Using Conversion Factors
Objectives:
• Apply conversion factors to convert measures to varying units

Lesson 5: Proportions
Objectives:
• Evaluate ratios to determine if they form a proportional relationship

Lesson 6: Solving Proportions
Objectives:
• Identify the unit rate in proportional relationships
• Use unit rates, cross products, and number sense to solve proportions

Lesson 7: Mid-Unit Review
Objectives:
• Review and reinforce understanding of ratios, rates, and proportions

Lesson 8: Similar Figures
Objectives:
• Evaluate figures for similarity
• Formulate and solve proportions to discover missing side lengths of similar polygons

Lesson 9: Maps and Scale Drawings
Objectives:
• Apply proportions to interpret scale drawings and solve problems based on scale ratios

Lesson 10: Ratios, Rates, and Proportions Unit Review (two-day lesson)
Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 11: Ratios, Rates, and Proportions Unit Test

Unit 7: Percents
This unit will focus on percents. People use percents often in everyday life, from calculating the score on a test to the finding the sale price of a shirt. At the end of this unit, you'll be able to use percents to solve real-world problems.
Objectives:
• Convert between fractions, decimals, and percents
• Solve percent problems
Lesson 1: Understanding Percents
Objectives:
• Create graphic models of percents
• Rewrite percents as equivalent ratios

Lesson 2: Percents, Fractions, and Decimals
Objectives:
• Convert fractions, decimals, and percents to equivalent fractions, decimals, or percents

Lesson 3: Percents Greater Than 100% or Less than 1%
Objectives:
• Evaluate and convert percents greater than 100%
• Evaluate and convert percents less than 1%

Lesson 4: Finding a Percent of a Number
Objectives:
• Estimate and calculate the percent of a given number

Lesson 5: Mid-Unit Review
Objectives:
• Review and reinforce understanding of percents

Lesson 6: Solving Percent Problems Using Proportions
Objectives:
• Solve percent problems by applying proportions

Lesson 7: Solving Percent Problems Using Equations
Objectives:
• Solve percent problems by generating and solving equations

Lesson 8: Applications of Percent (two-day lesson)
Objectives:
• Generate and solve equations involving real-world applications of percents
• Estimate solutions to problems involving real-world applications of percents

Lesson 9: Finding Percent of Change
Objectives:
• Solve applications of percent problems by determining percents of increase and decrease

Lesson 10: Percents Review (two-day lesson)
Objectives:
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 11: Percents Unit Test
MATH 7 B
Math 7 B

In this course, the student will explore concepts in geometry including identifying and describing the properties of geometric figures, as well as the relationships that exist between them. The student will find perimeter, area, and volume of two-dimensional figures and extend measurement skills to determine surface area and volume of three-dimensional figures. Next, the student will use tables, graphs, formulas, and functions to identify and extend number patterns. The student will graph linear and nonlinear relationships, identify slope, and explore translations. In the study of statistics, the student will create, analyze, and interpret different data displays. At the end of the course, the student will study probability and explore dependent events, compound events, and combinations.

Unit 1: Geometry

In this unit, you will work with basic geometric ideas. You will learn how to classify angles, triangles, and polygons and identify the parts of a circle. Lastly, you will construct different types of geometric figures.

Objectives:
- Identify lines, segments, and rays
- Identify and classify angles and polygons
- Calculate missing angle measurements from a triangle
- Analyze and construct circles and circle graphs

Lesson 1: Lines and Planes

Objectives:
- Identify planes and points
- Distinguish between parallel, perpendicular, and skew lines

Lesson 2: Identifying and Classifying Angles: 1

Objectives:
- Classify acute, right, obtuse, and straight angles
- Classify pairs of angles as supplementary and complementary angles
- Write and solve equations to determine missing angle measures

Lesson 3: Identifying and Classifying Angles: 2

Objectives:
- Classify sets of angles as vertical and adjacent angles
- Apply knowledge of angle theorems to determine missing angle measures

Lesson 4: Classifying Triangles

Objectives:
- Classify triangles by side length and angle measure
- Write and solve equations to determine missing angle measures

Lesson 5: Drawing Triangles

Objectives:
- Construct triangles from three measures of angles or sides
- Evaluate triangle characteristics to distinguish unique triangles

Lesson 6: Classifying Polygons

Objectives:
- Identify polygons according to side and angle measures
- Distinguish between regular and irregular polygons

Lesson 7: Classifying Quadrilaterals

Objectives:
- Identify special quadrilaterals according to side and angle measures

Lesson 8: Congruent Figures

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Objectives:
• Recognize congruent figures
• Analyze congruent figures to determine missing measures

Lesson 9: Circles

Objectives:
• Recognize the parts of a circle and their relationships to one another

Lesson 10: Circle Graphs

Objectives:
• Construct circle graphs with given conditions
• Analyze data contained in a circle graph

Lesson 11: Constructions

Objectives:
• Create congruent line segments and perpendicular bisectors using a compass and straight edge

Lesson 12: Geometry Unit Review (two-day lesson)

Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 13: Geometry Unit Test

Unit 2: Measurement

This unit will take some of the basic ideas you learned in the previous unit and put them to work. In this unit, you will be calculating perimeter, area, surface area, and volume of figures. In addition, you will be introduced to the Pythagorean Theorem and to irrational numbers. You will demonstrate what you learned in this unit with a portfolio project at the end where you will calculate the surface area and volume of common household items.

Objectives:
• Calculate the area and perimeter of various polygons and circles
• Evaluate square roots
• Use the Pythagorean Theorem
• Calculate the surface area and volume of prisms and cylinders

Lesson 1: Area and Perimeter of Parallelograms

Objectives:
• Calculate the area and perimeter of parallelograms

Lesson 2: Area and Perimeter of Triangles

Objectives:
• Calculate the area and perimeter of triangles

Lesson 3: Area of Trapezoids and Other Figures

Objectives:
• Apply area formulas to calculate areas of trapezoids and other irregular polygons

Lesson 4: Circumference and Area of a Circle

Objectives:
• Apply appropriate formulas to calculate circumference and area of a circle

Lesson 5: Square Roots and Irrational Numbers
Lesson 6: The Pythagorean Theorem Part 1
Objectives:
- Apply the Pythagorean Theorem to find missing lengths of right triangle legs or hypotenuse

Lesson 7: The Pythagorean Theorem Part 2
Objectives:
- Apply the Pythagorean Theorem to calculate solutions to real-world situations

Lesson 8: Mid-Unit Review
Objectives:
- Review and reinforce your understanding of measurement

Lesson 9: Three-Dimensional Figures
Objectives:
- Identify three-dimensional figures according to faces, edges, and vertices
- Sketch three-dimensional figures on graph paper

Lesson 10: Three Views of an Object
Objectives:
- Create two-dimensional sketches of the top, front, and side views of three-dimensional objects

Lesson 11: Cross-Sections
Objectives:
- Recognize and describe cross sections of three-dimensional objects

Lesson 12: Drawing Nets
Objectives:
- Sketch nets of three-dimensional figures
- Recognize nets of three-dimensional figures

Lesson 13: Surface Area of Prisms and Cylinders
Objectives:
- Apply knowledge of nets to calculate surface area of prisms and cylinders

Lesson 14: Volume of Prisms and Cylinders
Objectives:
- Apply appropriate formulas to calculate the volume of prisms and cylinders
Lesson 15: Efficiency Expert Portfolio

Objectives:
- Apply knowledge of dimensions, area, and volume

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Lesson 16: Measurement Review (two-day lesson)

Objectives:
- Organize your time and study materials
- Review your notes, Key Words, steps, and other important information that may be covered on the exam

Lesson 17: Measurement Unit Test

Unit 3: Patterns and Rules

This unit will review patterns and lay the foundation for your future study with functions. By the end of this unit, you will be able to create and interpret graphs and calculate interest on an amount of money.

Objectives:
- Identify and continue patterns and graphs
- Classify number sequences
- Create and interpret graphs
- Calculate interest

Lesson 1: Number Sequences

Objectives:
- Recognize patterns in arithmetic and geometric sequences and write rules to describe them
- Analyze patterns to find missing terms in sequences

Lesson 2: Patterns and Tables

Objectives:
- Create tables to represent patterns
- Interpret patterns in tables to find missing terms

Lesson 3: Function Rules

Objectives:
- Generate rules for functions
- Apply function rules to find missing terms

Lesson 4: Using Tables, Rules, and Graphs

Objectives:
- Create tables, function rules, and graphs and apply them to solve real-world problems

Lesson 5: Interpreting Graphs

Objectives:
- Create graphs to analyze real-world situations

Lesson 6: Simple Interest

Objectives:
- Apply the appropriate formula to compute simple interest

Lesson 7: Compound Interest

Objectives:
- Apply appropriate formula to compute compound interest

Lesson 8: Transforming Formulas
Objectives:
• Evaluate formulas to find solutions to problems

Lesson 9: Patterns and Rules Review (two-day lesson)
Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 10: Patterns and Rules Unit Test

Unit 4: Graphing in the Coordinate Plane
The functions that you learned about previously can be graphed on a coordinate plane. In this unit, you will learn to graph points and lines. You will also find lines of symmetry and graph reflections, translations, and rotations.
Objectives:
• Graph points, lines, translations, reflections, and rotations
• Find the slope of a line

Lesson 1: Graphing Points in Four Quadrants
Objectives:
• Identify points on all four quadrants of a coordinate plane
• Graph points on all four quadrants of a coordinate plane

Lesson 2: Graphing Linear Equations
Objectives:
• Determine solutions and graph to test solutions of linear equations

Lesson 3: Finding the Slope of a Line
Objectives:
• Determine the slope of a line
• Recognize characteristics of slope
• Apply slope to problem solving

Lesson 4: Graphs and Proportional Relationships
Objectives:
• Analyze graphs and tables to determine whether or not two quantities have a proportional relationship

Lesson 5: Constant of Proportionality
Objectives:
• Identify the constant of proportionality (unit rate) in tables, graphs, and equations

Lesson 6: Graphing Nonlinear Relationships
Objectives:
• Graph nonlinear equations and absolute value equations

Lesson 7: Translations
Objectives:
• Graph translations on a coordinate plane
• Generate rules to describe translations

Lesson 8: Line Symmetry and Reflections
Objectives:
• Recognize lines of symmetry and apply them to graph reflections

Lesson 9: Exploring Tessellations
Objectives:
• Create a tessellation of a figure

Lesson 10: Rotational Symmetry and Rotations
Objectives:
• Recognize rotational symmetry by identifying the center of rotation
• Determine the angle of rotation and graph a rotation of a figure

Lesson 11: Graphing in the Coordinate Plane Review (two-day lesson)
Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 12: Graphing in the Coordinate Plane Unit Test

Unit 5: Displaying and Analyzing Data
In this unit, you will be working with sets of data and displaying them in a way that they can be quickly and easily understood. By the end, you’ll be able to distinguish a valid survey from an invalid one, and identify graphical representations that are misleading.
Objectives:
• Identify, interpret, and create different displays of sets of data
• Identify misleading graphs and statistics

Lesson 1: Reporting Frequency
Objectives:
• Generate frequency tables, histograms, and line plots to represent data
• Interpret frequency tables, histograms, and line plots

Lesson 2: Stem-and-Leaf Plots
Objectives:
• Generate stem-and-leaf plots to represent data
• Interpret data represented on stem-and-leaf plots

Lesson 3: Choosing the Best Data Display
Objectives:
• Determine the most accurate and appropriate way to display data

Lesson 4: Data Variability
Objectives:
• Interpret data displays according to the visual overlap of two data sets
• Compare two data sets according to mean, median, and variability

Lesson 5: Random Samples and Surveys
Objectives:
• Compose a survey question
• Identify biased questions
• Recognize a random sample of a population

Lesson 6: Estimating Population Size (two-day lesson)
Objectives:
• Apply proportions to estimate population sizes
• Draw inferences about a population
• Generate simulated random samples

Lesson 7: Using Data to Persuade
Objectives:
• Identify misleading graphs and statistics
Lesson 8: Exploring Scatter Plots (two-day lesson)

Objectives:
- Create scatter plots
- Interpret scatter plots

Lesson 9: Displaying and Analyzing Data Unit Review (two-day lesson)

Objectives:
- Organize your time and study materials
- Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 10: Displaying and Analyzing Data Unit Test

Unit 6: Using Probability

The probability of an event is the likelihood that the event will occur. In this unit, you will be calculating the probabilities of given events including events that are dependent on another event occurring first. You will also determine how many possible outcomes there are for a given set of circumstances.

Objectives:
- Find the probability of dependent and independent events
- Represent all possible outcomes of an experiment in a sample space
- Find permutations and combinations

Lesson 1: Probability (two-day lesson)

Objectives:
- Determine the probability of an event
- Determine the complement of an event
- Find the probability of the complement of an event

Lesson 2: Experimental Probability

Objectives:
- Find experimental probability
- Use simulations

Lesson 3: Sample Spaces

Objectives:
- Make and use sample spaces
- Use the counting principle

Lesson 4: Compound Events

Objectives:
- Find the probability of independent and dependent events

Lesson 5: Simulating Compound Events

Objectives:
- Design and use a simulation to generate frequencies for compound events

Lesson 6: Permutations
Objectives:
• Determine permutations using the counting principle or factorials

Lesson 7: Combinations
Objectives:
• Determine combinations of objects

Lesson 8: Unit Review (two-day lesson)
Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the unit test

Lesson 9: Using Probability Unit Test
ESSENTIAL MATH 3 A
Essential Math 3 A

Essential Math 3 is an elementary school math course designed for the student who needs extended instruction, review, and reinforcement to master prerequisite and grade-level math skills. The units and lessons within this course focus on the fundamental skills and standards the student will need in order to master the concepts from the previous and current grade level and be successful in math.

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The answer key document for enVisionMATH Lessons is located in the Virtual Library in the Answer Keys section and is not included as a resource in the Course Guide. You can access the Answer Keys in the Virtual Library: Home > Curriculum and Instruction > Answer Keys.

Unit 1: Let’s Learn Math!

In this unit, your student will learn about the activities she will do in Math 3. The first lesson, intended for Learning Coaches, provides advice for using the Lesson Guide to support your student, and details the resources found in the course. It also offers helpful tips for building your student’s math skills. The second lesson is intended for students and their Learning Coaches. This lesson will introduce your student to the concept of math, and describe the structure of math lessons.

Objectives:
• Learn how to find and use the Coaching Guide
• Locate and describe lesson resources
• Learn ways to promote mathematical thinking in your daily life
• Describe the different parts of a lesson
• Describe the different types of assessments

Lesson 1: Learning Coach: Support Your Student in Math

Objectives:
• Learn how to find and use the Coaching Guide
• Locate and describe lesson resources
• Learn ways to promote mathematical thinking in your daily life

Lesson 2: Welcome to Math 3!

Objectives:
• Locate and describe lesson resources
• Describe the different parts of a lesson
• Describe the different types of assessments

Unit 2: Addition Strategies

The sole purpose of this unit is to practice and improve your student’s ability to solve addition problems using mental math. There are many strategies for using mental math to find the sum of an addition sentence, and individual preference plays a large role in the development of each student’s choice. Grounded by a solid knowledge of basic fact relationships, your student’s familiarity with addends is crucial to the development of mental math approaches to addition problems. The unit’s problem-solving strategy is “look for a pattern.” Addition facts, strategies, and properties are reinforced in this unit. Your student will practice using different techniques to commit facts to memory. This makes mental math increasingly easier as your student will be able to quickly answer addition sentences. Your student will develop associations between fact families, such as understanding that addends can be combined in any order, as well as find the sum of multiple numbers.

Objectives:
• Use mental math to add tens and ones to a two-digit number
• Use a hundred chart to add 2 two-digit numbers
• Use number patterns to solve problems

Lesson 1: Adding Tens

Objectives:
• Mentally add multiples of 10 to a two-digit number
Lesson 2: Adding Ones

Objectives:
- Mentally add a two-digit number to a one-digit number

Lesson 3: Adding Tens and Ones

Objectives:
- Add a two-digit number to a two-digit number using mental math

Lesson 4: Add on a Hundred Chart

Objectives:
- Use a hundred chart to add two-digit numbers and develop mental math strategies
- Solve problems by adding with mental math

Lesson 5: Look for a Pattern

Objectives:
- Use number patterns to solve problems

Lesson 6: Addition Strategies Review

Objectives:
- Review unit concepts

Lesson 7: Addition Strategies Unit Test

Lesson Guide (Coaching Guide):
Assessment
Today your student will take the Addition Strategies Unit Test. The test covers material presented in Unit 2.

Review any questions answered incorrectly with your student to ensure she has mastered the concepts before proceeding to the next lesson.

Unit 3: Adding Numbers

In this unit, your student will use his knowledge and skills of basic addition facts to add whole numbers of greater value. As your student learns to estimate and compute sums of numbers less than 1,000, he will use his background knowledge of place value to model the process of regrouping in the ones and tens place values. Several properties of addition are introduced to further develop your student’s addition strategies. This unit will provide your student with meaningful computational practice through word problems that are presented in authentic contexts.

Objectives:
- Use addition properties
- Learn to round and estimate using mental math
- Add 2- and 3-digit numbers
- Add three or more numbers

Lesson 1: Rounding
- Round three-digit whole numbers to the nearest ten or hundred, by comparing to the number halfway between or by using place value.

**Lesson 2: Estimating Sums**

Objectives:
- Solve problems by estimating sums.

**Lesson 3: Models to Add Two-Digit Numbers**

Objectives:
- Use place-value models and the standard algorithm to add 2 two-digit numbers.

**Lesson 4: Adding 2-Digit Numbers**

Objectives:
- Add 2-digit numbers using paper-and-pencil methods and use addition to solve problems.

**Lesson 5: Models for Adding 3-Digit Numbers**

Objectives:
- Add 3-digit numbers using place-value blocks or pictures and record the results using the standard addition algorithm.

**Lesson 6: Adding 3-Digit Numbers**

Objectives:
- Add 3-digit numbers using paper-and-pencil methods and use addition to solve problems.

**Lesson 7: Adding 3 or More Numbers**

Objectives:
- Add 3 or more 2- and/or 3-digit numbers using paper-and-pencil methods and use addition to solve problems.

**Lesson 8: Adding Numbers Review**

**Lesson 9: Adding Numbers Unit Test**

**Unit 4: Subtraction Strategies**

In this unit, your student will explore the meaning of subtraction through several types of situations, including taking away and comparing. Fact families, modeling, and mental math are presented to provide your student with multiple strategies in basic facts mastery, estimation, and computing differences.

Objectives:
- Learn subtraction meanings
- Subtract on a hundred chart
- Use mental math to subtract
- Estimate differences
Lesson 1: Subtraction Meanings

Objectives:
- Recognize situations when subtraction is used to solve a problem and write number sentences

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Lesson 2: Subtracting on a Hundred Chart

Objectives:
- Use a hundred chart to subtract 2-digit numbers and develop mental math strategies

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Lesson 3: Using Mental Math to Subtract

Objectives:
- Solve problems by subtracting with mental math

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Lesson 4: Estimating Differences

Objectives:
- Solve problems by estimating differences

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Lesson 5: Making Sense of Addition and Subtraction Equations

Objectives:
- Decide if both sides of an equation are equal and determine the value of an unknown number in an equation

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Lesson 6: Missing or Extra Information

Objectives:
- Identify whether there is extra information or missing information in a problem
- Determine whether it is possible to solve a problem if it has missing information or extra information

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Lesson 7: Subtraction Strategies Review

Lesson 8: Subtraction Strategies Unit Test

Unit 5: Subtracting Numbers

In this unit, your student’s knowledge and skills in basic facts will support him as he learns to compute differences of whole numbers that are less than 1,000. Your student will use manipulatives and his knowledge of place value to model the process of regrouping in the ones, tens, and hundreds place values. The use of manipulatives is one method for your student to visualize the process of subtraction with regrouping. Your student will also learn the algorithmic process of subtraction with regrouping. Finally, your student will practice his computational skills through word problems that are presented in authentic contexts. The problem-solving strategy that will be introduced to your student is “draw a picture and write a number sentence.”

Objectives:
- Use models to subtract 2- and 3-digit numbers
- Subtract 2- and 3-digit numbers
- Subtract across zero
- Learn to write a number sentence
Lesson 1: Regrouping 1 Ten for 10 Ones

Objectives:
- Regroup 1 ten as 10 ones when subtracting

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Lesson 2: Models to Subtract 2- and 1-Digit Numbers

Objectives:
- Use models to subtract a 1-digit number from a 2-digit number with or without regrouping

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Lesson 3: Subtracting 2- and 1-Digit Numbers

Objectives:
- Subtract a 1-digit number from a 2-digit number with and without regrouping using the standard algorithm

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Lesson 4: Models for Subtracting 2-Digit Numbers

Objectives:
- Subtract 2-digit numbers using place-value blocks or pictures and record the results using the standard subtraction algorithm

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Lesson 5: Subtracting 2-Digit Numbers

Objectives:
- Subtract 2-digit numbers using paper-and-pencil methods and use subtraction to solve problems

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Lesson 6: Models for Subtracting 3-Digit Numbers

Objectives:
- Subtract 3-digit numbers using place-value blocks or pictures and record the results using the standard subtraction algorithm

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Lesson 7: Subtracting 3-Digit Numbers

Objectives:
- Subtract 3-digit numbers using paper-and-pencil methods and use subtraction to solve problems

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Lesson 8: Subtracting Across Zero/Writing a Number Sentence (two-day lesson)

Objectives:
- Subtract 3-digit numbers using paper-and-pencil methods and use subtraction to solve problems
- Solve problems by choosing an operation based on a picture she has drawn describing the problem

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Lesson 9: Using Addition to Check Subtraction

Objectives:
Unit 6: Multiplication Strategies

In this unit, your student will revisit the concepts of equal groups and skip counting as she equates multiplication to repeated addition. Before your student practices the basic multiplication facts for mastery, it is important that she masters the strategies for knowing how to multiply. Thus, your student will make arrays and use counters to model how multiplication works. In addition, your student will learn to write personal multiplication stories in order to demonstrate a multiplication fact. After your student is introduced to the concept and process of multiplication, she will learn some of the basic multiplication facts. Specifically, the strategies of using patterns and applying properties of multiplication will be used to multiply with the numbers 0, 1, 2, 5, 9, and 10. The problem solving strategies in this unit are “writing to explain” and “two-question problems.”

Objectives:
- Use multiplication as repeated addition
- Identify arrays and multiply
- Write multiplication stories
- Use 2, 5, 9, and 10 as factors
- Multiply with 0 and 1

Lesson 1: Repeated Addition and Multiplication

Objectives:
- Model multiplication by repeated addition of concrete objects

Lesson 2: Building Arrays

Objectives:
- Build arrays to model multiplication situations

Lesson 3: Using Multiplication to Compare

Objectives:
- Use models and write multiplication sentences to compare amounts

Lesson 4: Writing Multiplication Stories/Writing to Explain

Objectives:
- Write math stories for given multiplication facts
- Use objects, words, pictures, numbers, and technology to provide a written explanation reflecting their understanding

Lesson 5: Vertical Form/Multiplying in Any Order

Objectives:
- Write multiplication problems in both horizontal and vertical forms
- Use arrays to investigate multiplying in any order

Lesson 6: 2 and 5 as Factors
Lesson 7: 10 as a Factor

Objectives:
- Use patterns to multiply with 10 as a factor

Lesson 8: 9 as a Factor

Objectives:
- Use patterns to multiply with 9 as a factor

Lesson 9: Multiplying with 0 and 1

Objectives:
- Use patterns and properties to multiply with 0 and 1 as factors

Lesson 10: Two-Question Problems

Objectives:
- Solve for one problem and use the solution to complete a second problem

Lesson 11: Multiplication Strategies Review

Lesson 12: Multiplication Strategies Unit Test

Unit 7: Multiplication

This unit continues to provide your student with multiple strategies to learn his basic multiplication facts before committing them to memory. Your student will learn to use the "break apart" and "known-facts" strategies for multiplication facts in which the numbers 3, 4, 6, 7, 8, 11, and 12 are factors. By the end of this unit, your student will know the basic multiplication facts up to 12. Your student should continue to practice these basic multiplication facts throughout the year to ensure that he mastered the concept. The problem-solving strategy in this unit is "multiple-step problems."

Objectives:
- Use 3, 4, 6, 7, 8, 11, and 12 as factors
- Solve multiple-step problems

Lesson 1: 3 as a Factor / 4 as a Factor (two-day lesson)

Objectives:
- Use known facts to find products with 3 as a factor
- Use known facts and doubles to find products with 4 as a factor

Lesson 2: 6 and 7 as Factors (two-day lesson)

Objectives:
- Use known facts to find products with 6 and 7 as factors

Lesson 3: 8 as a Factor

Objectives:
- Use known facts and double to find products with 8 as a factor
Lesson 4: 11 and 12 as Factors (two-day lesson)

Objectives:
• Use patterns to multiply with 11 and 12 as factors

Lesson 5: Multiple-Step Problems

Objectives:
• Solve multiple-step problems

Lesson 6: Multiplication Review

Lesson 7: Multiplication Unit Test

Unit 8: Division Strategies

In this unit, your student will explore two interpretations of division: division as sharing and division as repeated subtraction. Your student will make arrays, use counters, and draw pictures to model division. Your student will learn how to analyze a word problem in order to interpret how the remainder will be displayed in the problem. Finally, your student will learn to write and solve her own division stories. The problem-solving strategy in this unit is “use objects and draw a picture.”

Objectives:
• Identify division as sharing
• Use division as repeated subtraction
• Write division stories
• Use objects and draw a picture

Lesson 1: Division as Sharing

Objectives:
• Use models to solve division problems involving sharing and record solutions using division number sentences

Lesson 2: Finding Missing Numbers in a Multiplication Table

Objectives:
• Use multiplication tables to find answers to division problems

Lesson 3: Understanding Remainders

Objectives:
• Learn that when dividing, there may be some left over called a remainder

Lesson 4: Division as Repeated Subtraction

Objectives:
• Use models to solve division problems involving repeated subtraction and record solutions using division number sentences

Lesson 5: Problem-Solving: Choose an Appropriate Equation
Lesson 6: Writing Division Stories

Objectives:
- Write and solve number stories involving division

Lesson 7: Make a Table and Look for a Pattern

Objectives:
- Use tables to solve problems involving number patterns

Lesson 8: Division Strategies Review

Lesson 9: Division Strategies Unit Test

Unit 9: Division

In this unit, your student will learn that, like addition and subtraction, multiplication and division have an inverse relationship; this means that their operations undo each other. Subsequently, your student will be able to produce related multiplication and division facts, or fact families. A strong knowledge of basic multiplication facts will lend the use of fact families as an efficient strategy for learning division facts. Other useful strategies that your student will continue to use to explore division concepts are pictures and counters. This unit provides your student with instruction on division facts from zero to nine. Continued practice throughout the year will enhance his memory of the facts.

Objectives:
- Relate multiplication and division
- Identify fact families with 2, 3, 4, 5, 6, 7, 8, and 9
- Divide with 0 and 1

Lesson 1: Relating Multiplication and Division

Objectives:
- Give a multiplication fact, state a related division fact and vice versa

Lesson 2: Fact Families with 2, 3, 4, and 5

Objectives:
- Give quotients for division facts with divisors of 2, 3, 4, or 5

Lesson 3: Fact Families with 6 and 7

Objectives:
- Give quotients for division facts with divisors of 6 and 7

Lesson 4: Fact Families with 8 and 9

Objectives:
- Give quotients for division facts with divisors of 8 and 9

Lesson 5: Dividing with 0 and 1

Objectives:
• Use patterns and fact families to find answers to division facts with 0 and 1

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Lesson 6: Division Review

Lesson 7: Division Unit Test
ESSENTIAL MATH 3 B
Essential Math 3 B

Essential Math 3 is an elementary school math course designed for the student who needs extended instruction, review, and reinforcement to master prerequisite and grade-level math skills. The units and lessons within this course focus on the fundamental skills and standards the student will need in order to master the concepts from the previous and current grade level and be successful in math.

Your student will have access to DimensionU™, which includes online math games that support your student’s understanding of lesson concepts. You will find the link to DimensionU™ on your student’s home page. Follow the directions to download the necessary software first. Once installed, DimensionU™ allows your student to access DimensionM™ to practice grades 3–7 and pre-algebra math skills in a gaming environment.

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The answer key document for enVisionMATH Lessons is located in the Virtual Library in the Answer Keys section and is not included as a resource in the Course Guide. You can access the Answer Keys in the Virtual Library: Home > Curriculum and Instruction > Answer Keys.

Unit 1: Patterns and Relationships

In this unit, your student will learn to identify, describe, extend, and write a rule for a variety of nonnumeric and numeric patterns that repeat in predictable ways. He will also learn that patterns between pairs of numbers exist when they are related by multiplication, addition, or subtraction. Your student will encounter such related numbers in two-column or two-row tables. Given the value of one of the numbers, your student will learn to find the value of the other number by writing a rule for the relationship and thereby extending the table. In addition, your student will use his knowledge of numbers and operation symbols to translate words from a given mathematical scenario into a numerical expression. He will also develop skills in comparing numerical expressions.

Objectives:
- Solve repeating patterns
- Determine number sequences
- Extend tables
- Write rules for situations and translate words to expressions
- Solve geometric patterns

Lesson 1: Repeating Patterns/Number Sequences (two-day lesson)

Objectives:
- Identify and extend repeating geometric or repeating number patterns
- Identify and extend whole-number patterns involving addition and subtraction

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Lesson 2: Extending Tables

Objectives:
- Extend tables of ordered pairs for situations involving multiplication, addition, or subtraction

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Lesson 3: Writing Rules for Situations

Objectives:
- Find the rule and extend the table, given a table of number pairs

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Lesson 4: Translating Words to Expressions

Objectives:
Unit 2: Solids and Shapes

In this unit, your student will learn to identify, describe, and classify two-dimensional objects, referred to as shapes or polygons, and three-dimensional objects, or solid figures, based on the similarities and differences between their attributes. Your student will also learn about points and lines, the building blocks used to describe polygons and solid figures. She will recognize that while a point has no size, a set of points that extend in opposite directions form a straight line and two lines joined at a point result in an angle. Relationships between these building blocks result in the formation of several types of lines and angles. These lines and angles help constitute polygons and solid figures in unique ways. This unit is rich in mathematical terminology. Relating the vocabulary to as many real-life examples will help your student gain familiarity with the terms.

Objectives:
- Identify solid figures
- Relate solids and shapes
- Identify lines, line segments, and angles
- Identify polygons, triangles, and quadrilaterals

Lesson 1: Solid Figures / Relating Solids and Shapes (two-day lesson)

Objectives:
- Identify solid figures by name and describe their attributes
- Identify shapes related to given solids

Lesson 2: Lines and Line Segments

Objectives:
- Identify lines and line segments and explore their different relationships

Lesson 3: Angles

Objectives:
- Identify and classify angles in relation to right angles

Lesson 4: Polygons

Objectives:
- Identify and classify polygons

Lesson 5: Triangles

Objectives:
- Identify and classify triangles
Lesson 6: Quadrilaterals

Objectives:
• Identify and classify quadrilaterals

Lesson 7: Combining and Separating Shapes

Objectives:
• Create new shapes by combining shapes or by separating shapes

Lesson 8: Making New Shapes

Objectives:
• Make a new shape by cutting apart a shape and rearranging the pieces

Lesson 9: Solids and Shapes Review (two-day lesson)

Lesson 10: Solids and Shapes Unit Test

Unit 3: Understanding Fractions

In this unit, your student will use manipulatives to represent fractions of a region and fractions of a set. The use of manipulatives will help your student develop proficiency in understanding how to identify fractions. Your student will also use models, pictures, and fraction strips to find equivalent fractions. Future math courses will use the basic fraction skills presented in this unit and apply them throughout all branches of mathematics, including measurement, geometry, probability, and statistics. Relating fractions to as many real-life examples as possible will help your student gain familiarity with the concepts presented in this unit.

Objectives:
• Write fractions to describe regions and sets that are divided into equal parts
• Use benchmark fractions to estimate
• Determine equivalent fractions using models
• Identify fractions on a number line

Lesson 1: Dividing Regions into Equal Parts

Objectives:
• Identify regions that have been divided into equal-sized parts and divide regions into equal-sized parts

Lesson 2: Fractions and Regions

Objectives:
• Associate the model, symbol, and words used to describe a fractional part of a whole region

Lesson 3: Fractions and Sets

Objectives:
• Associate the model, symbol, and words used to describe a fractional part of a set

Lesson 4: Benchmark Fractions

Objectives:
• Use benchmark fractions to estimate fractional parts

Lesson 5: Comparing Fractions Using Benchmarks

Objectives:
• Use benchmark numbers to compare fractions with the same numerator or the same denominator

Lesson 6: Finding Equivalent Fractions

Objectives:
• Use models to find equivalent fractions

Lesson 7: Fractions on the Number Line

Objectives:
• Find and write fractions and mixed numbers on a number line
• Compare and order fractions and mixed numbers

Lesson 8: Equivalent Fractions and the Number Line

Objectives:
• Use number lines to identify equivalent fractions

Lesson 9: Whole Numbers and Fractions

Objectives:
• Use fraction strips and number lines to find fraction names for whole numbers

Lesson 10: Understanding Fractions Review (two-day lesson)

Lesson 11: Understanding Fractions Unit Test

Unit 4: Customary Measurement

In this unit, your student will learn to estimate, measure, and select appropriate tools and units for length, capacity, and weight in the customary system. At the beginning of this unit, your student will measure length with nonstandard units. This process illustrates to your student the need for standard units of measurement. Then she will measure lengths of objects using standard units of measurement. Once your student has practiced measuring to the nearest inch, she will learn how to measure with greater precision by finding length to the nearest one-half inch and one-fourth inch. Your student will continue her study of measurement by changing customary units of length. Throughout this topic, each unit of measurement is compared to a real-life object.

Objectives:
• Measure length to the nearest inch and to the nearest fraction of an inch
• Estimate and measure length using inches, feet, yards, and miles
• Use customary units to estimate and measure capacity
• Use customary units to estimate and measure weight

Lesson 1: Understanding Measurement

Objectives:
• Understand the measurement process and the need for standard units
• Learn to measure length with nonstandard units and to the nearest inch
Lesson 2: Fractions of an Inch

Objectives:
- Measure length to the nearest 1/2 and 1/4 inch

Lesson 3: Using Inches, Feet, Yards, and Miles

Objectives:
- Choose an appropriate unit, estimate, and measure in feet, yards, and miles
- Convert units among inches, feet, and yards

Lesson 4: Customary Units of Capacity

Objectives:
- Choose an appropriate unit and tool, estimate, and measure in cups, pints, quarts, and gallons
- Identify objects which hold about a cup, a pint, a quart, or a gallon

Lesson 5: Units of Weight

Objectives:
- Choose an appropriate unit and tool, estimate, and measure in ounces, pounds, and tons
- Identify objects that weigh about an ounce, a pound, or a ton

Lesson 6: Customary Measurement Review (two-day lesson)

Lesson 7: Customary Measurement Unit Test

Unit 5: Metric Measurement

In this unit, your student will learn to estimate, measure, and select appropriate tools and units for length, capacity, and mass in the metric system. Your student may remember the pattern of the base-ten numeration system when he discovers that the metric system of measurement is based on powers of 10. Your student will also convert metric units of length. When each unit of measurement is introduced throughout this unit, each unit is compared to a real-life object. The object serves as a benchmark that your student can use to estimate the length, capacity, and mass of an object before he measures it. Finally, your student will determine whether his estimate seems reasonable. This unit’s problem-solving strategy is “make a table and look for a pattern.”

Objectives:
- Estimate and measure length using metric units
- Estimate and measure capacity using metric units
- Estimate and measure mass using metric units
- Make a table and look for a pattern

Lesson 1: Using Centimeters and Decimeters

Objectives:
- Estimate and measure lengths in centimeters

Lesson 2: Using Meters and Kilometers

Objectives:
Lesson 3: Metric Units of Capacity

Objectives:
- Choose an appropriate unit and tool, estimate, and measure in milliliters and liters
- Identify objects that hold about a liter or a milliliter

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Lesson 4: Units of Mass

Objectives:
- Choose an appropriate unit and tool, estimate, and measure in grams and kilograms
- Identify objects with a mass of about a gram or kilogram

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Lesson 5: Problem Solving: Draw a Picture

Objectives:
- Draw a picture to solve a problem involving units of capacity and mass

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Lesson 6: Make a Table and Look for a Pattern

Objectives:
- Make a table and look for a pattern to solve a problem

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Lesson 7: Metric Measurement Review (two-day lesson)

Lesson 8: Metric Measurement Unit Test

Unit 6: Perimeter and Area

In this unit, your student will learn that the distance around a plane shape is its perimeter. She will explore several strategies for calculating perimeter. Your student will investigate how to make a shape with a given perimeter and how different shapes can have the same perimeter. Then your student will explore the concept of area, which is the space inside a plane shape. Your student will solve problems involving area, and represent the answer using square units. She will learn the process of estimating and finding the area of regular and irregular shapes. The problem-solving strategy in this unit is "solve a simpler problem."

Objectives:
- Measure perimeter of common shapes and find different shapes with the same perimeter
- Understand, estimate, and measure area
- Solve a simpler problem

Lesson 1: Understanding Perimeter

Objectives:
- Use standard units to find the perimeter of a shape

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Lesson 2: Perimeter of Common Shapes

Objectives:
- Use standard units to find the perimeter of a shape

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Lesson 3: Understanding Area/Estimating and Measuring Area (two-day lesson)

Objectives:
- Use concrete and pictorial models of square units to determine the area of two-dimensional surfaces

Lesson 4: Areas of Squares and Rectangles

Objectives:
- Find the area of rectangles by counting units or by using a formula

Lesson 5: Area of Irregular Shapes

Objectives:
- Find the area of irregular shapes

Lesson 6: Equal Areas and Fractions

Objectives:
- Use equal areas of parts of figures to model unit fractions

Lesson 7: Solve a Simpler Problem

Objectives:
- Solve complex problems asking for the area of irregular shapes

Lesson 8: Perimeter and Area Review (two-day lesson)

Lesson 9: Perimeter and Area Unit Test

Unit 7: Time and Temperature

In this unit, your student will solve many real-life problems involving time and temperature. Your student will learn how to tell time to the half hour, quarter hour, and to the minute on both analog and digital clocks. Your student’s knowledge of counting by fives and by ones will help your student measure time on an analog clock, while his understanding of fractions will support his comprehension of the terms “half hour” and “quarter hour.” Your student will also convert units of time and determine elapsed time. For problems involving temperature, your student will read thermometers and learn the benchmarks for freezing and boiling water in degrees Fahrenheit and degrees Celsius. These benchmarks will help your student connect appropriate temperatures for given real-world activities.

Objectives:
- Tell time to the half hour, quarter hour, and minute
- Convert units of time
- Determine elapsed time
- Measure temperatures

Lesson 1: Time to the Half Hour and Quarter Hour
Lesson 2: Time to the Minute

Objectives:
- Tell time to the nearest minute using analog and digital clocks

Lesson 3: Units of Time

Objectives:
- Perform simple conversions for units of time

Lesson 4: Elapsed Time

Objectives:
- Find elapsed time in intervals of minutes

Lesson 5: Temperature

Objectives:
- Read temperatures on Fahrenheit thermometers, and determine appropriate temperatures for given activities

Lesson 6: Time and Temperature Review (two-day lesson)

Lesson 7: Time and Temperature Unit Test

Unit 8: Data and Graphs

In this unit, your student will collect, organize, display, analyze, and interpret real-world data. Your student will collect data in an organized way by using a tally chart. Once the data has been gathered, your student will display the data in pictographs and bar graphs in order to read and interpret the information. The problem-solving strategy in this unit is “use tables and graphs to draw conclusions.”

Objectives:
- Organize data
- Read and make pictographs and bar graphs
- Create line plots
- Use tables and graphs to draw conclusions

Lesson 1: Organizing Data

Objectives:
- Use tally charts to record and organize survey data

Lesson 2: Reading Pictographs and Bar Graphs

Objectives:
- Read and interpret data from a pictograph and a bar graph

Lesson 3: Making Pictographs

Objectives:
- Make a pictograph from a table or tally chart

Lesson 4: Making Bar Graphs
Objectives:
• Make a bar graph to represent the data in a table or tally chart

Lesson 5: Length and Line Plots

Objectives:
• Use line plots to organize and represent measurement data

Lesson 6: Use Tables and Graphs to Draw Conclusions

Objectives:
• Solve problems by using tables and graphs to draw conclusions

Lesson 7: Data and Graphs Review (two-day lesson)

Lesson 8: Data and Graphs Unit Test
ESSENTIAL MATH 4 A
Essential Math 4 A

Essential Math 4 is an elementary school math course designed for the student who needs extended instruction, review, and reinforcement to master prerequisite and grade-level math skills. The units and lessons within this course focus on the fundamental skills and standards the student will need in order to master the concepts from the previous and current grade level and be successful in math.

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Unit 1: Let's Get Ready to Learn Math!

In this unit, your student will learn about the activities he will do in Math 4. The first lesson, intended for Learning Coaches, provides advice for using the Lesson Guide to support your student, and details the resources found in the course. It also offers helpful tips for building your student’s math skills. The second lesson is intended for students and their Learning Coaches. This lesson will introduce your student to the concept of math, and describe the structure of math lessons.

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life
- Learn ways to become a confident math learner
- Describe the different parts of a lesson and the different types of assessments

Lesson 1: Learning Coach: Support Your Student in Math

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life

Lesson 2: Welcome to Math 4!

Objectives:
- Learn ways to become a confident math learner
- Locate and describe lesson resources
- Describe the different parts of a lesson
- Describe the different types of assessments

Unit 2: Numeration

This unit reinforces a solid comprehension of the base ten numeration system. Previously, your student used his understanding of place value to read and write numbers in the hundreds and thousands. As your student delves deeper into place value throughout this course, he will extend his ability to read, order, compare, round, and represent larger numbers in a variety of ways. Manipulatives will play a key role in developing your student’s understanding of numbers in the thousands and millions place values. Proficiency of the concepts presented in this unit will provide your student with the foundation to grasp more complex math concepts. Finally, your student will read, write, and compare decimal values as he counts money and makes change to solve problems using real-world scenarios.

Objectives:
- Work with numbers in thousands and millions
- Compare and order whole numbers
- Use money to understand decimals
- Count money and make change

Lesson 1: Thousands

Objectives:
- Represent numbers with place-value blocks and number lines
• Write numbers in standard form, expanded form, and word form

Lesson 2: Millions

Objectives:
• Represent numbers in the millions using a place-value chart
• Write numbers in expanded form, using periods to help write numbers in word form

Lesson 3: Place Value Relationships

Objectives:
• Learn how digits within a multi-digit whole number relate to each other by their place value

Lesson 4: Comparing and Ordering Whole Numbers

Objectives:
• Apply knowledge of place value to compare and order numbers

Lesson 5: Rounding Whole Numbers

Objectives:
• Show how to use place value to round whole numbers

Lesson 6: Using Money to Understand Decimals

Objectives:
• Use place-value charts to read, write, and compare decimals in tenths and hundredths using money

Lesson 7: Counting Money and Making Change

Objectives:
• Convert a collection of coins and bills into a total amount and make change

Lesson 8: Solving Problems Involving Money

Objectives:
• Solve real-world problems that involve money and giving change by counting

Lesson 9: Numeration Review

Lesson 10: Numeration Unit Test

Unit 3: Adding and Subtracting Whole Numbers

In this unit, your student will apply her knowledge and skills of basic addition and subtraction facts to solve addition and subtraction problems involving whole numbers of greater value. As your student learns to estimate and compute sums of numbers less than 100,000, she will use her background knowledge of place value to model the process of...
adding and subtracting numbers in the thousands period, with and without regrouping. This unit will provide your student with meaningful computational practice through word problems that are presented in authentic contexts. The problem-solving strategies that will be introduced to your student are “missing or extra information” and “draw a picture and write an equation.”

Objectives:
- Use estimation strategies
- Add and subtract whole numbers
- Subtract across zeros
- Problem solving strategies

**Lesson 1: Mentally Add & Subtract/Estimate Sum & Difference**

Objectives:
- Round whole numbers to estimate sums and differences

**Lesson 2: Missing or Extra Information**

Objectives:
- Identify what information in a problem is not needed or not present

**Lesson 3: Adding Whole Numbers**

Objectives:
- Add numbers to hundred thousands with and without regrouping

**Lesson 4: Subtracting Whole Numbers**

Objectives:
- Subtract numbers to thousands with and without regrouping

**Lesson 5: Subtracting Across Zeros**

Objectives:
- Subtract numbers with zeros to thousands

**Lesson 6: Draw a Picture and Write an Equation**

Objectives:
- Use a picture or diagram to translate an everyday situation into a number sentence or equation

**Lesson 7: Adding and Subtracting Whole Numbers Review**

**Lesson 8: Adding and Subtracting Whole Numbers Unit Test**

**Unit 4: Multiplication Meanings and Facts**

In this unit, your student will revisit the concepts of equal groups and skip counting as he equates multiplication to repeated addition. Your student will use arrays and counters to model how multiplication works. In addition, your student will use patterns and apply properties of multiplication to multiply with the numbers 0, 1, 2, 5, 9, 10, 11, and 12. By mastering these basic multiplication facts, you student will develop his ability to solve multi-digit multiplication problems and division problems. The problem solving strategy in this unit is “draw a picture and write an equation.”

Objectives:
Lesson 1: Meanings of Multiplication

Objectives:
- Recognize multiplication as repeated addition of equal groups, used in arrays and comparisons

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Lesson 2: Patterns for Facts

Objectives:
- Use patterns to find products with factors of 2, 5, and 9

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Lesson 3: Multiplication Properties

Objectives:
- Use multiplication properties to simplify computations

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Lesson 4: 3 and 4 as Factors

Objectives:
- Use the Distributive Property to simplify multiplication problems by rewriting one of the factors as a sum of two numbers

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Lesson 5: 6, 7, and 8 as Factors

Objectives:
- Use the Distributive Property and other regrouping properties to simplify multiplication involving 6s, 7s, and 8s by rewriting one of the factors

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Lesson 6: 10, 11, and 12 as Factors

Objectives:
- Use patterns as aids to master facts and multiples of 10, 11, and 12

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Lesson 7: Draw a Picture and Write an Equation

Objectives:
- Draw pictures to problem solve multiplication situations and use the pictures to write number sentences

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Lesson 8: Multiplication Meanings and Facts Review

Lesson 9: Multiplication Meanings and Facts Unit Test

Unit 5: Multiplying by 1-Digit Numbers

In this unit, your student’s knowledge of basic facts and number patterns will support her as she learns to multiply single-digit numbers by multiples of 10 and 100. Your student will use strategies, such as compatible numbers and rounding, to estimate products. This unit will also engage your student in 2-digit by 1-digit, 3-digit by 1-digit, and 4-digit by 1-digit.
multiplication problems. The standard algorithm, expanded algorithm, and break apart strategies are some strategies that your student will employ to solve these multiplication problems.

Objectives:
- Multiply by multiples of 10 and 100
- Use estimation, and reasonableness to solve problems
- Use an expanded algorithm
- Multiply 1-digit numbers by 2-digit, 3-digit, and 4-digit numbers

**Lesson 1: Multiplying by Multiples of 10 and 100**

Objectives:
- Use basic multiplication facts and number patterns to multiply by multiples of 10 and 100

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**Lesson 2: Round to Estimate**

Objectives:
- Use compatible numbers and rounding to estimate solutions to multiplication problems

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**Lesson 3: Reasonableness**

Objectives:
- Check for reasonableness by making sure calculations answer the questions asked and by using estimation to make sure the calculation was performed correctly

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**Lesson 4: Multiplication and Arrays**

Objectives:
- Use an array to multiply 1-digit times 2-digit numbers

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**Lesson 5: Using an Expanded Algorithm**

Objectives:
- Record multiplication using an expanded algorithm

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**Lesson 6: Connecting the Expanded and Standard Algorithms**

Objectives:
- Multiply 2-digit numbers by 1-digit numbers using paper-and-pencil methods

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**Lesson 7: Multiplying 2-Digit by 1-Digit Numbers**

Objectives:
- Multiply 2-digit numbers by 1-digit numbers using paper-and-pencil methods

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**Lesson 8: Multiplying 3- and 4-Digit by 1-Digit Numbers**

Objectives:
- Use the standard algorithm to multiply 3-digit or 4-digit numbers by 1-digit numbers
Lesson 9: Multiplying by 1-Digit Numbers Review

Lesson 10: Multiplying by 1-Digit Numbers Unit Test

Unit 6: Multiplying by 2-Digit Numbers

In this unit, your student will multiply with multiples of 10 and 100, round factors, and use compatible numbers to estimate products. Your student will use several strategies, including arrays, tables, the traditional algorithm, and the expanded algorithm, to solve 2-digit by 2-digit multiplication problems. Your student will practice his mental math skills by multiplying greater numbers. This unit's problem-solving strategy is “two-question problems.”

Objectives:
- Estimate products
- Use arrays and an expanded algorithm
- Multiply 2-digit numbers by multiples of 10 and other 2-digit numbers

Lesson 1: Estimate Products

Objectives:
- Use rounding and compatible numbers to estimate solutions to multiplication problems

Lesson 2: Arrays and an Expanded Algorithm

Objectives:
- Use arrays and expanded algorithms to multiply two-digit numbers by two-digit numbers to find the product

Lesson 3: Multiplying 2-Digit Numbers by Multiples of Ten

Objectives:
- Use grids and patterns to multiply 2-digit numbers and multiples of 10

Lesson 4: Multiplying 2-Digit by 2-Digit Numbers

Objectives:
- Use partial products to multiply two-digit numbers by two-digit numbers and find the products

Lesson 5: Two-Question Problems

Objectives:
- Solve two-question problems

Lesson 6: Multiplying by 2-Digit Numbers Review

Lesson 7: Multiplying by 2-Digit Numbers Unit Test

Unit 7: Division Meanings and Facts

In this unit, your student will explore two interpretations of division: division as sharing and division as repeated subtraction. Your student will use arrays, counters, number lines, and pictures to model division. She will investigate special division rules that involve dividing by the numbers 0 and 1. Finally, your student will practice her skills to relate a multiplication
fact to a division fact. She will learn that, like addition and subtraction, multiplication and division have an inverse relationship; this means that their operations undo each other. Subsequently, your student will be able to produce related multiplication and division facts, or fact families. A strong knowledge of basic multiplication facts will lend the use of fact families as an efficient strategy for solving division facts. The problem-solving strategy in this unit is “draw a picture and write an equation.”

Objectives:
- Use meanings of division
- Relate multiplication and division
- Use special quotients
- Use multiplication facts to find division facts
- Draw a picture and write an equation

Lesson 1: Meanings of Division

Objectives:
- Use and draw models to solve division problems

Lesson 2: Relating Multiplication and Division

Objectives:
- Use arrays to write and complete multiplication and division fact families

Lesson 3: Special Quotients

Objectives:
- Use multiplication facts with 0 and 1 to learn about special division rules with 0 and 1

Lesson 4: Fact Families with 2, 3, 4, and 5

Objectives:
- Give quotients for division facts with divisors of 2, 3, 4, or 5

Lesson 5: Fact Families with 6 and 7

Objectives:
- Give quotients for division facts with divisors of 6 and 7

Lesson 6: Fact Families with 8 and 9

Objectives:
- Give quotients for division facts with divisors of 8 and 9

Lesson 7: Draw a Picture and Write an Equation

Objectives:
- Draw pictures and write related number sentences to solve problems

Lesson 8: Division Meanings and Facts Review

Lesson 9: Division Meanings and Facts Unit Test

Unit 8: Dividing by 1-Digit Divisors
In this unit, your student will estimate quotients and divide 2-, 3-, and 4-digit dividends by single-digit divisors. Your student will encounter remainders in some of the division problems presented in this unit. He will use arrays and counters to visualize remainders. Your student will also analyze word problems to determine how to interpret and use remainders. Your student’s knowledge of place-value, related multiplication and division facts, and estimation will allow him to understand and use a standard algorithm when dividing with larger numbers. The standard algorithm will help your student to split the calculation into simpler steps. Finally, your student will learn how to factor a whole number. He will find that prime numbers have only two factors, while composite numbers have more than two factors. This unit’s problem-solving strategy is “multiple-step problems.”

Objectives:
- Use estimation to divide
- Divide with remainders
- Determine prime and composite numbers
- Divide 2-, 3-, and 4-digit numbers by 1-digit numbers
- Use factors

Lesson 1: Using Mental Math to Divide/Estimating Quotients

Objectives:
- Use compatible numbers and rounding to estimate quotients

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Lesson 2: Estimating Quotients for Greater Dividends

Objectives:
- Estimate quotients of multi-digit division problems using multiplication facts and place-value concepts

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Lesson 3: Using Objects/Division as Repeated Subtraction

Objectives:
- Use repeated subtraction to model division
- Record division as repeated subtraction

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Lesson 4: Dividing with Remainders

Objectives:
- Divide whole numbers by 1-digit divisors resulting in quotients with remainders

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Lesson 5: Connecting Models and Symbols

Objectives:
- Use place value to understand the algorithm of long division

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Lesson 6: Dividing 2-Digit by 1-Digit Numbers

Objectives:
- Use the standard algorithm to divide a two-digit number by a one-digit number

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Lesson 7: Dividing 3-Digit by 1-Digit Numbers

Objectives:
- Use the standard algorithm to divide 3-digit numbers by 1-digit numbers

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Lesson 8: Mid-Unit Review
Objectives:
• Review concepts presented thus far in the unit

Lesson 9: Deciding Where to Start Dividing
Objectives:
• Use the standard algorithm to divide 3-digit numbers by 1-digit numbers and properly decide where to begin dividing

Lesson 10: Dividing 4-Digit by 1-Digit Numbers
Objectives:
• Estimate and find quotients for 4-digit dividends and 1-digit divisors

Lesson 11: Factors
Objectives:
• Learn how to factor whole numbers

Lesson 12: Prime and Composite Numbers
Objectives:
• Learn to identify prime and composite numbers

Lesson 13: Multiple-Step Problems
Objectives:
• Identify the hidden question in a multi-step problem
• Use the answer to that hidden question to solve the original problem

Lesson 14: Dividing by 1-Digit Divisors Review
Lesson 15: Dividing by 1-Digit Divisors Unit Test

Unit 9: Lines, Angles, and Shapes
In this unit, your student will learn about points, lines, and planes, which are the building blocks to other geometric figures. Your student will study how the relationships between these building blocks result in the formation of several types of lines, angles, and polygons. Using a protractor, your student will measure and draw angles of varying degrees. Polygons are named by the number of sides and angles they possess, and your student will learn to identify and describe different polygons based on such attributes. While taking a closer look at triangles, your student will find that triangles are classified based on the length of their sides and by the size of their angles. Your student will also investigate the classification system of quadrilaterals.
Objectives:
• Identify points, lines, planes, line segments, angles, and rays
• Measure angles
• Identify polygons
• Identify triangles and quadrilaterals
• Add and subtract angle measures

Lesson 1: Points, Lines, and Planes

Objectives:
• Identify and describe points, lines, and planes

Lesson 2: Line Segments, Rays, and Angles
Objectives:
• Learn geometric terms to describe parts of lines and types of angles

Lesson 3: Measuring Angles
Objectives:
• Measure and draw angles

Lesson 4: Adding and Subtracting Angle Measures
Objectives:
• Find unknown angle measures by adding and subtracting

Lesson 5: Polygons
Objectives:
• Learn to identify polygons

Lesson 6: Triangles
Objectives:
• Learn to identify and classify triangles

Lesson 7: Quadrilaterals
Objectives:
• Learn to identify quadrilaterals

Lesson 8: Lines, Angles, and Shapes Review

Lesson 9: Lines, Angles, and Shapes Unit Test
ESSENTIAL MATH 4 B
Essential Math 4 B

Essential Math 4 is an elementary school math course designed for the student who needs extended instruction, review, and reinforcement to master prerequisite and grade-level math skills. The units and lessons within this course focus on the fundamental skills and standards the student will need in order to master the concepts from the previous and current grade level and be successful in math.

Your student will have access to DimensionU™, which includes online math games that support your student’s understanding of lesson concepts. You will find the link to DimensionU™ on your student’s home page. Follow the directions to download the necessary software first. Once installed, DimensionU™ allows your student to access DimensionM™ to practice grades 3–7 and pre-algebra math skills in a gaming environment.

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The answer key document for enVisionMATH Lessons is located in the Virtual Library in the Answer Keys section and is not included as a resource in the Course Guide. You can access the Answer Keys in the Virtual Library: Home > Curriculum and Instruction > Answer Keys.

Unit 1: Understanding Fractions

In this unit, your student will use fraction circles, fraction strips, and other models to represent, compare, order, and estimate fractions. Your student will identify fractional parts of a whole region, whole object, and whole set. Throughout this unit, your student will explore equivalent fractions, express fractions in simplest form, and write mixed numbers and improper fractions interchangeably. Your student will use the skills that he learns in this unit in future math courses as well as in everyday tasks. Relating fractions to as many real-life examples as possible will help your student gain familiarity with the concepts presented in this unit.

Objectives:
- Identify regions and sets
- Determine equivalent fractions
- Write fractions in simplest terms
- Compare and order fractions
- Convert improper fractions and mixed numbers

Lesson 1: Regions and Sets

Objectives:
- Identify and draw fractional parts of a region and a set, and divide sets to show fractional parts

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Lesson 2: Estimating Fractional Amounts

Objectives:
- Estimate fractional parts of regions and sets
- Estimate fractions for points on the number line

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Lesson 3: Equivalent Fractions

Objectives:
- Use models and objects to show equivalent fractions

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Lesson 4: Number Lines and Equivalent Fractions

Objectives:
- Use a number line to identify and write equivalent fractions

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Lesson 5: Fractions in Simplest Form

Objectives:
- Express equivalent fractions in simplest form

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Lesson 6: Improper Fractions and Mixed Numbers

Objectives:
- Identify and write mixed numbers as improper fractions and improper fractions as numbers

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Lesson 7: Comparing Fractions

Objectives:
- Use benchmark fractions to compare fractions with unlike denominators

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Lesson 8: Ordering Fractions (two-day lesson)

Objectives:
- Use common denominators and equivalent fractions to order fractions with unlike denominators

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Lesson 9: Understanding Fractions Review

Lesson 10: Understanding Fractions Unit Test

Unit 2: Adding and Subtracting Fractions

In this unit your student will continue to work with fractions and mixed numbers. Your student will first decompose and compose fractions as preparation for addition and subtraction of fractions and mixed numbers. Then using models and manipulatives, your student will add and subtract fractions with like denominators as well as mixed numbers with like denominators. Your student will work with models to increase her understanding of any fraction as a multiple of a unit fraction.

Objectives:
- Decompose and compose fractions
- Add and subtract fractions with like denominators
- Add and Subtract mixed numbers with like denominators
- Multiply a fraction by a whole number

Lesson 1: Decomposing and Composing Fractions

Objectives:
- Decompose fractions and represent them as compositions of fractions in a variety of ways

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Lesson 2: Using Models to Add Fractions

Objectives:
- Add fractions with like denominators, using models

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Lesson 3: Using Models to Subtract Fractions

Objectives:
- Subtract fractions with like denominators, using models
Lesson 4: Add and Subtract Fractions with Like Denominators

Objectives:
• Add and subtract fractions with like denominators using models and paper and pencil

Lesson 5: Modeling Addition and Subtraction of Mixed Numbers

Objectives:
• Use models to add and subtract mixed numbers

Lesson 6: Adding Mixed Numbers

Objectives:
• Use models and computation to add mixed numbers

Lesson 7: Subtracting Mixed Numbers

Objectives:
• Use models and computation to subtract mixed numbers

Lesson 8: Fractions as Multiples of Unit Fractions

Objectives:
• Use models and computation to add mixed numbers

Lesson 9: Multiplying a Fraction by a Whole Number

Objectives:
• Use models and computation to add mixed numbers

Lesson 10: Adding and Subtracting Fractions Review (two-day lesson)

Lesson 11: Adding and Subtracting Fractions Unit Test

Unit 3: Understanding Decimals

In this unit, your student will read and write decimals to the hundredths place in expanded, standard, and word form. Models of hundredths and place-value charts will help your student to understand the value that is represented by a decimal, which will allow him to compare and order decimals. Your student will learn to write decimals and fractions interchangeably and graph them on a number line. Additionally, your student will learn to write decimals and mixed numbers interchangeably and graph them on a number line. The problem-solving strategy in this unit is “draw a table.”

Objectives:
• Determine decimal place value
• Compare and order decimals
• Convert fractions and decimals
• Identify fractions and decimals on a number line
• Draw a picture

Lesson 1: Decimal Place Value

Objectives:
Lesson 2: Comparing and Ordering Decimals

Objectives:
- Use models and place-value charts to compare decimals to hundredths
- Use greater-than and less-than symbols to order decimal numbers

Lesson 3: Fractions and Decimals

Objectives:
- Understand how to write fractions as decimals and decimals as fractions

Lesson 4: Fractions and Decimals on the Number Line

Objectives:
- Learn to locate and name fractions and decimals on a number line

Lesson 5: Equivalent Fractions and Decimals

Objectives:
- Use equivalent fractions to write fractions as decimals

Lesson 6: Mixed Numbers and Decimals on the Number Line

Objectives:
- Understand how to graph decimals and mixed numbers on the number line

Lesson 7: Draw a Picture

Objectives:
- Solve problems using the strategy Draw a Picture

Lesson 8: Understanding Decimals Review (two-day lesson)

Lesson 9: Understanding Decimals Unit Test

Unit 4: Operations with Decimals

In this unit, your student will use models of tenths and hundredths and her knowledge of addition and subtraction basic facts to estimate and compute decimal sums and differences involving decimals through hundredths. The problem-solving strategy is “try, check, and revise.”

Objectives:
- Round and estimate decimal sums and differences
- Add and subtract decimals
- Use the try, check, and revise strategy
• Round two-place decimal numbers to one place or the nearest whole number
• Round decimal numbers to estimate sums and differences

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Lesson 2: Modeling Addition and Subtraction of Decimals

Objectives:
• Add and subtract decimals in tenths and hundredths using models

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Lesson 3: Adding and Subtracting Decimals

Objectives:
• Estimate and compute the sum or difference of whole numbers and positive decimals to two places

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Lesson 4: Try, Check, and Revise

Objectives:
• Try a solution, check the solution, and, if not correct, revise the solution, following the same method until the correct solution is determined via checking

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Lesson 5: Operations with Decimals Review (two-day lesson)

Lesson 6: Operations with Decimals Unit Test

Unit 5: Area and Perimeter
In this unit, your student will explore strategies for finding area and perimeter. Using centimeter grid paper, your student will determine the area of regular and irregular figures by counting the number of square units that cover the interior of the figure. Your student will also use formulas to find the area of squares, rectangles, parallelograms and triangles and to find the perimeter of polygons. Additionally, your student will explore line symmetry. This unit’s problem-solving strategy is “solve a simpler problem and make a table.”

Objectives:
• Determine area
• Find the area of squares, rectangles, parallelograms, triangles, and irregular shapes
• Solve for perimeter of a figure
• Determines lines of symmetry

Lesson 1: Understanding Area

Objectives:
• Measure the area of a figure by counting the number of square units that cover a region

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Lesson 2: Area of Squares and Rectangles

Objectives:
• Find the area of rectangles by counting square units or by using a formula

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Lesson 3: Area of Irregular Shapes

Objectives:
• Find the area of irregular shapes
Lesson 4: Area of Parallelograms

Objectives:
• Use the formula for the area of a rectangle in order to find a formula for the area of a parallelogram

Lesson 5: Area of Triangles

Objectives:
• Use the relationship between triangles and parallelograms to find the area of triangles

Lesson 6: Perimeter

Objectives:
• Find the perimeter of a polygon by adding the lengths of the sides or by using the formula

Lesson 7: Solving Perimeter and Area Problems

Objectives:
• Use formulas for the perimeter and area of rectangles to solve real-world problems

Lesson 8: Line Symmetry

Objectives:
• Determine if a plane figure has line symmetry and, if so, how many lines of symmetry it has

Lesson 9: Solve a Simpler Problem and Make a Table

Objectives:
• Break a problem into smaller, more manageable pieces and find a pattern to fit

Lesson 10: Area and Perimeter Review (two-day lesson)

Lesson 11: Area and Perimeter Unit Test

Unit 6: Measurement and Time

In this unit, your student will learn to select appropriate tools and units to estimate and measure length, capacity, and weight in the customary system; and length, capacity, and mass in the metric system. Using a table of units, multiplication, and division, your student will convert units of measure within the same system. Next your student will study elapsed time, start time, and end time, and use computations to solve problems involving several different units of time. Your student will also learn to measure temperature and calculate changes in temperature in both degrees Fahrenheit and degrees Celsius. The use of real measuring tools, such as thermometers, scales, and clocks, as well as real items, such as cups and daily schedules, will add meaning to your student’s study of measurement.

Objectives:
• Use customary units of length, capacity, and weight
• Convert customary units
• Use metric units of length, capacity, and mass
• Convert metric units
• Determine time, elapsed time, and temperature

**Lesson 1: Using Customary Units of Length**

Objectives:
• Estimate and measure length by choosing the most appropriate unit of length

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**Lesson 2: Customary Units of Capacity**

Objectives:
• Estimate fluently with customary capacity units (cups, pints, quarts, and gallons)
• Compare the relative sizes of capacity measurements

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**Lesson 3: Units of Weight**

Objectives:
• Estimate fluently and measure with units of weight

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**Lesson 4: Changing Customary Units**

Objectives:
• Convert between customary units

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**Lesson 5: Mid-Unit Review**

**Lesson 6: Using Metric Units of Length**

Objectives:
• Estimate and measure length to the nearest centimeter, and choose the most appropriate metric unit for measuring length

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**Lesson 7: Metric Units of Capacity**

Objectives:
• Estimate fluently with milliliters and liters
• Measure capacity using these metric units

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**Lesson 8: Units of Mass**

Objectives:
• Estimate and measure with units of mass—grams and kilograms

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**Lesson 9: Changing Metric Units**

Objectives:
• Convert between metric units

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**Lesson 10: Units of Time/Elapsed Time (two-day lesson)**

Objectives:
• Compare several different units of time and freely convert from one unit of time to another
• Find the difference in time using a beginning and an end time
• Use elapsed time to find a beginning and an end time

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Lesson 11: Measurement and Time Review (two-day lesson)

Lesson 12: Measurement and Time Unit Test

Unit 7: Data and Graphs

In this unit, your student will encounter real-world problems that require collecting, organizing, displaying, analyzing, and interpreting data. Your student will learn how to collect data in an organized way by using a tally chart. He will learn how to use different displays for different types of data, including bar graphs and line plots. Lastly, your student will solve problems using line plots. The problem-solving strategy in this unit is “make a graph.”

Objectives:
• Use data from surveys
• Interpret graphs: line plots and bar graphs
• Solve problems using line plots
• Create graphs

Lesson 1: Data from Surveys

Objectives:
• Design and use a survey with a sample size that allows accurate predictions to be made about a larger population

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Lesson 2: Interpreting Graphs

Objectives:
• Use bar graphs to display data

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Lesson 3: Line Plots

Objectives:
• Learn and understand how to draw line plots, interpret points, and recognize outliers

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Lesson 4: Solving Problems Involving Line Plots

Objectives:
• Construct line plots using given data and use the line plot to answer questions about the data set

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Lesson 5: Make a Graph

Objectives:
• Make and use graphs to display data and solve problems

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Lesson 6: Data and Graphs Review (two-day lesson)

Lesson 7: Data and Graphs Unit Test

Unit 8: Equations
In this unit, your student will study equations. She will determine if two equations are equal or not equal to each other. The equations presented in this unit also include variables. Your student will solve for the variable in addition, subtraction, multiplication, and division equations by using the inverse operation to undo the operation of the equation. The problem-solving strategy in this unit is “work backward.”

Objectives:
• Determine whether two expressions are equal
• Add and subtract to solve equations
• Multiply and divide to solve equations
• Use the work backward strategy

**Lesson 1: Equal or Not Equal**

Objectives:
• Learn and understand the properties of equality

**Lesson 2: Solving Addition and Subtraction Equations**

Objectives:
• Learn and understand how to use addition and subtraction to solve equations

**Lesson 3: Solving Multiplication and Division Equations**

Objectives:
• Learn and understand how to use multiplication and division to solve equations

**Lesson 4: Work Backward**

Objectives:
• Solve problems that require finding the original times, measurements, or quantities that led to a result that is given

**Lesson 5: Equations Review (two-day lesson)**

**Lesson 6: Equations Unit Test**
ESSENTIAL MATH 5 A
**Essential Math 5 A**

Essential Math 5 is an elementary school math course designed for the student who needs extended instruction, review, and reinforcement to master prerequisite and grade-level math skills. The units and lessons within this course focus on the fundamental skills and standards the student will need in order to master the concepts from the previous and current grade level and be successful in math.

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**Unit 1: Let's Get Ready to Learn Math!**

In this unit, your student will learn about the activities he will do in Math 5. The first lesson, intended for Learning Coaches, provides advice for using the Lesson Guide to support your student, and details the resources found in the course. It also offers helpful tips for building your student’s math skills. The second lesson is intended for students and their Learning Coaches. This lesson will introduce your student to the concept of math, and describe the structure of math lessons.

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life
- Create a goal and steps to accomplish that goal
- Describe the different parts of a lesson and different types of assessments

**Lesson 1: Learning Coach: Supporting Your Student in Math**

Objectives:
- Learn how to find and use the Coaching Guide
- Locate and describe lesson resources
- Learn ways to promote mathematical thinking in your daily life

**Lesson 2: Welcome to Math 5! 🌟**

Objectives:
- Create a goal and steps to accomplish that goal
- Locate and describe lesson resources
- Describe the different parts of a lesson
- Describe the different types of assessments

**Unit 2: Numeration**

This unit reinforces a solid comprehension of the base ten numeration system. As your student delves deeper into place value throughout this course, he will extend his ability to read, order, compare, round, and represent numbers to the billions and the thousandths place values. Proficiency of the concepts presented in this unit will provide your student with the foundation to grasp more complex math concepts. This unit’s problem solving strategy is "look for a pattern."

Objectives:
- Understand place value and decimal place value
- Compare and order whole numbers
- Compare and order decimals
- Look for a pattern

**Lesson 1: Place Value / Comparing and Ordering Whole Numbers 🌟**

Objectives:
- Write the standard, expanded, and word forms of whole numbers in the billions and identify the value of digits in whole numbers
- Compare and order whole numbers
Lesson 2: Decimal Place Value

Objectives:
- Write decimals in standard form, word form, and expanded form through millionths

Lesson 3: Comparing and Ordering Decimals

Objectives:
- Compare and order decimals through thousandths

Lesson 4: Look for a Pattern

Objectives:
- Look for patterns with decimal-number sets in order to solve problems

Lesson 5: Numeration Review

Lesson 6: Numeration Test

Unit 3: Adding and Subtracting Whole Numbers and Decimals

In this unit, your student will apply her knowledge of basic addition and subtraction facts to solve addition and subtraction problems involving whole numbers and decimals. As your student learns to estimate and compute whole number and decimal sums, she will use her background knowledge of place value to model the process of adding and subtracting with and without regrouping. This unit will provide your student with meaningful computational practice through word problems that are presented in authentic contexts. The problem-solving strategies that will be introduced to your student is "draw a picture and write an equation" and "multiple-step problems."

Objectives:
- Use rounding and estimating
- Add and subtract decimals
- Draw pictures and writing equations
- Solve multiple-step problems

Lesson 1: Rounding Whole Numbers and Decimals

Objectives:
- Round whole numbers through millions and decimals through thousandths

Lesson 2: Estimating Sums and Differences

Objectives:
- Use rounding and compatible numbers to estimate sums and differences of whole numbers and decimals

Lesson 3: Draw a Picture and Write an Equation

Objectives:
- Use pictures and write equations to help them solve problems

Lesson 4: Modeling Addition and Subtraction of Decimals

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Objectives:

- Add and subtract decimals in tenths and hundredths using models.

Lesson 5: Adding Decimals

Objectives:

- Compute sums of decimals involving tenths, hundredths, and thousandths

Lesson 6: Counting Money and Making Change

Objectives:

- Convert a collection of coins and bills into a total amount and make change

Lesson 7: Subtracting Decimals

Objectives:

- Compute differences of decimals involving tenths, hundredths, and thousandths

Lesson 8: Multi-Step Problems

Objectives:

- Use multiple steps to solve a variety of problems

Lesson 9: Adding & Subtracting Numbers & Decimals Review (two-day lesson)

Lesson 10: Adding & Subtracting Numbers & Decimals Test

Unit 4: Multiplying Whole Numbers

Your student will learn to simplify multiplication, especially when multiplying with multiples of 10, 100, and 1,000. Your student’s prior mastery of basic multiplication facts will allow him to focus on new concepts, such as partial products and the traditional algorithm, to solve multi-digit multiplication problems.

Objectives:

- Use mental math and estimation to find products
- Multiply 2-digit numbers by 2-digit numbers
- Multiply greater numbers

Lesson 1: Using Mental Math to Multiply/Estimating Products

Objectives:

- Mentally compute products of whole numbers using place-value patterns and the properties of multiplication
- Use rounding or compatible numbers to estimate products of whole numbers

Lesson 2: Multiplying 2-Digit by 1-Digit Numbers

Objectives:

- Multiply 2-digit numbers by 1-digit numbers using paper-and-pencil methods
Lesson 3: Multiplying 3- and 4-Digit by 1-Digit Numbers

Objectives:
• Use the standard algorithm to multiply 3- and 4-digit numbers by 1-digit numbers.

Lesson 4: Multiplying 2-Digit by 2-Digit Numbers

Objectives:
• Use partial products to multiply two-digit numbers by two-digit numbers and find the products.

Lesson 5: Special Cases

Objectives:
• Learn to multiply greater numbers.

Lesson 6: Multiplying Greater Numbers

Objectives:
• Multiply two-digit numbers by factors with more than two digits.

Lesson 7: Multiplying Whole Numbers Review (two-day lesson)

Lesson 8: Multiplying Whole Numbers Test

Unit 5: Dividing by 1-Digit Divisors

In this unit, your student will estimate and divide up to four-digit dividends by single-digit divisors. Your student will learn to simplify division, especially when dividing with a dividend that is a multiple of 10 and 100. Since relating multiplication to division serves as an efficient strategy for solving division problems, your student should be fluent with her multiplication facts. In doing so, your student will be able to concentrate on learning new skills, such as dividing within the context of money, dividing with zeros in the quotient, and dividing to find factors of whole numbers. Your student will also study the concepts of prime and composite numbers. The problem-solving strategy in this unit is "reasonableness."

Objectives:
• Divide by multiples of 10 and estimate quotients
• Divide by 1-digit divisors
• Understanding factors
• Determine prime and composite numbers

Lesson 1: Divide Multiples of 10 and 100/Estimate Quotients

Objectives:
• Find the quotient of a division problem whose dividend is a multiple of 10, where division involves a basic fact
• Use rounding and compatible numbers to estimate quotients of whole numbers.

Lesson 2: Reasonableness/Connecting Models and Symbols

Objectives:
• Check problems for reasonableness by using various methods, including estimation and checking their final answer
• Find quotients using the model of sharing money
Lesson 3: Dividing with Remainders

Objectives:
- Divide whole numbers by 1-digit divisors resulting in quotients with remainders

Lesson 4: Dividing 2-Digit by 1-Digit Numbers

Objectives:
- Use the standard algorithm to divide a two-digit number by a one-digit number

Lesson 5: Dividing 3-Digit by 1-Digit Numbers

Objectives:
- Use the standard algorithm to divide 3-digit numbers by 1-digit numbers

Lesson 6: Deciding Where to Start Dividing

Objectives:
- Use the standard algorithm to divide 3-digit numbers by 1-digit numbers and properly decide where to begin dividing

Lesson 7: Zeros in the Quotient

Objectives:
- Divide with zeros in the quotient

Lesson 8: Understanding Factors

Objectives:
- Use divisibility rules to determine if a number is divisible by another and to find factor pairs of a given number

Lesson 9: Prime and Composite Numbers

Objectives:
- Learn to identify prime and composite numbers

Lesson 10: Dividing by 1-Digit Divisors Review (two-day lesson)

Lesson 11: Dividing by 1-Digit Divisors Test

Unit 6: Dividing by 2-Digit Divisors

In this unit, your student estimate quotients and divide up to five-digit dividends with two-digit divisors. The solutions to these division problems include one-digit and two-digit quotients, as well as quotients with a remainder. Basic multiplication facts will help your student find the quotient to division problems whose dividends and divisors are multiples of 10. This unit’s problem-solving strategy is “missing or extra information.”

Objectives:
- Use patterns to divide
Lesson 1: Using Patterns to Divide

Objectives:
- Find the quotients of division problems whose dividends and divisors are multiples of 10, where the division involves a basic fact

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Lesson 2: Estimating Quotients with 2-Digit Divisors

Objectives:
- Use estimation to find approximate solutions to quotients with two-digit divisors using compatible numbers

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Lesson 3: Connecting Models and Symbols

Objectives:
- Use arrays and area models to model division.

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Lesson 4: Dividing by Multiples of 10

Objectives:
- Find quotients with a two-digit divisor that is a multiple of ten

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Lesson 5: 1-Digit Quotients

Objectives:
- Find one-digit quotients where the divisor is a two-digit number

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Lesson 6: 2-Digit Quotients

Objectives:
- Divide a three-digit number by a two-digit number to find a two-digit quotient

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Lesson 7: Missing or Extra Information

Objectives:
- Determine which information is missing and identify extraneous information in problems

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Lesson 8: Dividing by 2-Digit Divisors Review (two-day lesson)

Lesson 9: Dividing by 2-Digit Divisors Test

Unit 7: Variables and Expressions

In this unit, your student will translate word phrases into algebraic expressions using variables. Then, your student will use patterns to write and solve algebraic expressions using addition, subtraction, and multiplication. Also, your student will apply the order of operations to evaluate algebraic expressions.

Objectives:
- Solve variables and expressions
• Use patterns and expressions to solve problems
• Apply the Order of Operations

**Lesson 1: Variables and Expressions (two-day lesson)**

Objectives:
- Translate words into algebraic expressions

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**Lesson 2: Patterns and Expressions**

Objectives:
- Use patterns to show relationships and solve algebraic expressions

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**Lesson 3: More Patterns and Expressions**

Objectives:
- Write and evaluate expressions involving multiplication, addition, and subtraction

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**Lesson 4: Patterns: Extending Tables**

Objectives:
- Extend patterns in a table using given rules.
- Identify the relationship between corresponding terms in the sequences.

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**Lesson 5: Order of Operations**

Objectives:
- Use given values for variables to evaluate numerical or algebraic expressions with three or more numbers and two or more operations

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**Lesson 6: Addition and Subtraction Expressions**

Objectives:
- Model addition and subtraction patterns shown in tables and write rules for the patterns

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**Lesson 7: Multiplication and Division Expressions**

Objectives:
- Model multiplication and division patterns shown in tables and write rules for the patterns

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**Lesson 8: Variables and Expressions Review (two-day lesson)**

**Lesson 9: Variables and Expressions Test**

**Unit 8: Multiplying and Dividing Decimals**

In this unit, your student will use mental math strategies to estimate products and quotients of problems involving decimals. Your student will apply the standard algorithm to multiply a decimal by a whole number and to multiply a decimal by another decimal. The steps for dividing decimals, using the standard algorithm, will also be taught to divide a decimal by a whole number and to divide a decimal by another decimal. This unit’s problem-solving strategy is “multiple-step problems.”
Objectives:
• Multiply and divide decimals by 10, 100, and 1,000
• Estimate the product of a decimal and a whole number
• Multiply and divide a decimal by a whole number
• Solve multiple-step problems

Lesson 1: Multiplying Decimals by 10, 100, or 1,000
Objectives:
• Mentally multiply decimals by 10, 100, and 1,000

Lesson 2: Multiplying a Whole Number and a Decimal
Objectives:
• Multiply a decimal number by a whole number

Lesson 3: Model and Perform Decimal Multiplication
Objectives:
• Use number sense and place value to multiply decimals.
• Find products of whole numbers and decimals to ten thousandths.

Lesson 4: Multiplying Two Decimals
Objectives:
• Use the standard algorithm to multiply decimals by decimals

Lesson 5: Dividing Decimals by 10, 100, or 1,000
Objectives:
• Mentally divide decimals by 10, 100, or 1,000

Lesson 6: Number Sense: Decimal Division
Objectives:
• Use reasoning to correctly place the decimal point in a quotient.

Lesson 7: Dividing a Decimal by a Whole Number
Objectives:
• Divide a decimal number by a whole number

Lesson 8: Dividing a Decimal by a Decimal
Objectives:
• Use the standard algorithm to divide decimals by decimals

Lesson 9: Multiplying and Dividing Decimals Review (two-day lesson)

Lesson 10: Multiplying and Dividing Decimals Test

Unit 9: Shapes
In this unit, your student will learn about points, lines, and planes, the building blocks used to describe other geometric figures. Your student will recognize the appropriate labels that are needed in drawings of lines and rays. Also, your student will examine how to say specific lines and rays and how to write them with proper notation. Using a protractor, your student will measure and draw angles of varying degrees. Polygons are named by the number of sides and angles they possess, and your student will learn to identify and describe different polygons based on such attributes. While taking a closer look at triangles, your student will find that triangles fall into classifications according to the length of their sides or by the size of their angles. Your student will also investigate the classification system of quadrilaterals. This unit’s problem-solving strategy is “make and test generalizations.”

Objectives:
- Apply basic geometric ideas
- Measure and classify angles
- Identify polygons, triangles, and quadrilaterals
- Make and test generalizations

Lesson 1: Basic Geometric Ideas

Objectives:
- Use geometric terms to describe locations and parts of space

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Lesson 2: Measuring and Classifying Angles

Objectives:
- Measure, draw, and classify angles

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Lesson 3: Polygons

Objectives:
- Identify and classify polygons

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Lesson 4: Triangles

Objectives:
- Identify and classify triangles

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Lesson 5: Quadrilaterals

Objectives:
- Identify and classify quadrilaterals

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Lesson 6: Special Quadrilaterals/Classifying Quadrilaterals

Objectives:
- Learn about the properties of special quadrilaterals
- Sort a variety of quadrilaterals to develop the hierarchy or "family tree" for quadrilaterals

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Lesson 7: Make and Test Generalizations

Objectives:
- make and test generalizations of patterns in different examples

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Lesson 8: Shapes Review (two-day lesson)
ESSENTIAL MATH 5 B
Essential Math 5 B

Essential Math 5 is an elementary school math course designed for the student who needs extended instruction, review, and reinforcement to master prerequisite and grade-level math skills. The units and lessons within this course focus on the fundamental skills and standards the student will need in order to master the concepts from the previous and current grade level and be successful in math.

Your student will have access to DimensionU™, which includes online math games that support your student’s understanding of lesson concepts. You will find the link to DimensionU™ on your student’s home page. Follow the directions to download the necessary software first. Once installed, DimensionU™ allows your student to access DimensionM™ to practice grades 3–7 and pre-algebra math skills in a gaming environment.

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The answer key document for enVisionMATH Lessons is located in the Virtual Library in the Answer Keys section and is not included as a resource in the Course Guide. You can access the Answer Keys in the Virtual Library: Home > Curriculum and Instruction > Answer Keys.

Unit 1: Fractions and Decimals

In this unit, your student will identify fractional parts of a whole region and whole set. Your student will learn how division relates to fractions through the process of dividing a whole into equal parts. This unit will explain how to show equivalent fractions, express fractions in simplest form, and write mixed numbers and improper fractions interchangeably. Your student will also learn how to write tenths and hundredths as decimals and fractions interchangeably. Determining greatest common factor and comparing and ordering on a number line are other concepts and skills included in this unit. The problem–solving strategy in this unit is “writing to explain.”

Objectives:
• Apply meanings of fractions
• Divide fractions
• Convert mixed numbers and improper fractions
• Compare and order fractions and mixed numbers
• Simplify fractions to simplest terms and determine equivalent fractions

Lesson 1: Meanings of Fractions/Fractions and Division

Objectives:
• Identify and show fractional parts of regions and sets
• Use division to segment objects into equal parts that are fractions of a whole
• Represent fractions as points on the number line

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Lesson 2: Mixed Numbers and Improper Fractions

Objectives:
• Express fractions greater than 1 as mixed numbers or improper fractions

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Lesson 3: Equivalent Fractions

Objectives:
• Use models and objects to show equivalent fractions

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Lesson 4: Compare and Order Fractions

Objectives:
• Determine which of two fractions or mixed numbers is greater or less in order to compare and order fractions and mixed numbers
Lesson 5: Common Factors and Greatest Common Factor

Objectives:
- Determine common factors and the greatest common factor of numbers

Lesson 6: Fractions in Simplest Form

Objectives:
- Express equivalent fractions in simplest form

Lesson 7: Tenths and Hundredths

Objectives:
- Represent decimals (tenths and hundredths) as fractions
- Represent fractions with denominators of 10 and 100 as decimals

Lesson 8: Fractions and Decimals on the Number Line

Objectives:
- Learn to locate and name fractions and decimals on a number line

Lesson 9: Writing to Explain

Objectives:
- Explain how they estimated fractional amounts of objects

Lesson 10: Fractions and Decimals Review (two-day lesson)

Lesson 11: Fractions and Decimals Unit Test

Unit 2: Adding and Subtracting Fractions and Mixed Numbers

In this unit, your student will use fraction models and computation skills to add and subtract fractions and mixed numbers with like and unlike denominators. Your student will study the process of finding the least common multiple of two numbers in order to change unlike denominators into like denominators for addition and subtraction purposes.

Objectives:
- Add and subtract fractions with like denominators
- Find common multiples and least common multiples
- Add and subtract fractions with unlike denominators
- Add and subtract mixed numbers

Lesson 1: Estimate/Add/Subtr Fractions with Like Denominator

Objectives:
- Use a number line to estimate sums and differences of fractions
- Use models and computational procedures to add and subtract fractions with like denominators

Lesson 2: Common Multiples and Least Common Multiple

Objectives:
- Determine common multiples and least common multiples of numbers
Lesson 3: Adding Fractions with Unlike Denominators

Objectives:
- Use models and computational procedures to add fractions with unlike denominators

Lesson 4: Subtracting Fractions with Unlike Denominators

Objectives:
- Use models and computational procedures to subtract fractions with unlike denominators

Lesson 5: Modeling Addition and Subtraction of Mixed Numbers

Objectives:
- Use models to add and subtract mixed numbers
- Use models and computational procedures to add mixed numbers

Lesson 6: Subtracting Mixed Numbers

Objectives:
- Use models and computational procedures to subtract mixed numbers

Lesson 7: More Adding and Subtracting Mixed Numbers

Objectives:
- Solve more complex problems involving the addition and subtraction of mixed numbers

Lesson 8: Add & Subtract Fractions & Mixed Numbers Review (two-day lesson)

Lesson 9: Add & Subtract Fractions & Mixed Numbers Unit Test

Unit 3: Multiplying Fractions and Mixed Numbers

In this unit, your student will learn to multiply a fraction by a whole number and by another fraction. Multiplication of mixed numbers is another concept that is presented in this unit. Several methods, such as using repeated addition, drawing a picture, and computing products, are used to develop the concepts of multiplying with fractions and multiplying with mixed numbers. The problem-solving strategy in this unit is “draw a picture and write a number sentence.”

Objectives:
- Multiply fractions and whole numbers
- Multiply two fractions
- Multiply mixed numbers
- Relate division to multiplication of fractions

Lesson 1: Fractions as Multiples of Unit Fractions

Objectives:
- Use unit fractions and multiplication to describe fractions that are multiples of unit fractions

Lesson 2: Multiplying Fractions and Whole Numbers
Lesson 3: Estimating Products/Multiplying Two Fractions

Objectives:
• Multiply a fraction by a whole number

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Lesson 4: Area of a Rectangle

Objectives:
• Use compatible numbers and rounding to estimate with fractions
• Give the product of two fractions

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Lesson 5: Multiplying Mixed Numbers

Objectives:
• Multiply mixed numbers

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Lesson 6: Multiplication as Scaling

Objectives:
• Compare the size of the product to the size of one factor without multiplying to begin to consider multiplication as scaling

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Lesson 7: Relating Division to Multiplication of Fractions

Objectives:
• Divide whole numbers by fractions

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Lesson 8: Dividing Unit Fractions by Non-Zero Whole Numbers

Objectives:
• Discover the inverse relationship between multiplication and division that will help students to divide unit fractions by whole numbers

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Lesson 9: Draw a Picture and Write an Equation

Objectives:
• Use diagrams and write equations to solve problems

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Lesson 10: Multiplying Fractions and Mixed Numbers Review (two-day lesson)

Lesson 11: Multiplying Fractions and Mixed Numbers Unit Test

Unit 4: Perimeter and Area

In this unit, your student will learn to select appropriate tools and units to measure length in the customary and metric systems. Your student will measure with greater precision by finding length to the nearest inch, half inch, quarter inch, and eighth inch in the customary system and to the nearest centimeter and millimeter in the metric system. Using formulas, your student will find the perimeter of polygons, area of squares, rectangles, and triangles,
and circumference of circles. Additionally, your student will use a formula to find the area of a parallelogram and to determine the side-lengths of a parallelogram, given the area and the length of one side.

Objectives:
- Use customary units of length
- Use metric units of length
- Find perimeter of polygons
- Find the area of squares, rectangles, parallelograms, and triangles
- Determine the circumference of circles

Lesson 1: Using Customary Units of Length

Objectives:
- Choose the most appropriate units of length and measure to the nearest inch, half inch, quarter inch, or eighth inch

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Lesson 2: Using Metric Units of Length

Objectives:
- Choose the most appropriate metric unit of length and measure to the nearest centimeter and millimeter

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Lesson 3: Perimeter

Objectives:
- Find the perimeter of polygons

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Lesson 4: Area of Squares and Rectangles

Objectives:
- Find the areas of squares and rectangles by using formulas

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Lesson 5: Differences in Perimeter and Area of Rectangles

Objectives:
- Compare different rectangles with the same perimeter to discover the change in area
- Compare different rectangles with the same area to discover the change in perimeter

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Lesson 6: Area of Parallelograms

Objectives:
- Find the area of a parallelogram by using a formula
- Find the length of the sides of a parallelogram when the area and one side length are given

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Lesson 7: Area of Triangles

Objectives:
- Find the area of a triangle by using a formula
- Find a missing length when the area and other dimensions are known

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Lesson 8: Circles and Circumference
Objectives:
- Learn the parts of a circle and calculate circumference

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**Lesson 9: Perimeter and Area Review (two-day lesson)**

**Lesson 10: Perimeter and Area Unit Test**

**Unit 5: Solids**

This unit allows your student to examine solids in greater detail. To begin, your student will name the attributes of solid figures by their faces, edges, and vertices. Your student will identify two-dimensional shapes that constitute solid figures, as he examines nets that form solid figures upon folding. Determining surface area in square units and volume in cubic units are concepts that are studied in this unit.

Objectives:
- Identify solids
- Relate shapes and solids
- Find surface area and volume of solids
- Work with irregular shapes and solids

**Lesson 1: Solids**

Objectives:
- Identify solid figures according to faces, edges, and vertices

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**Lesson 2: Relating Shapes and Solids**

Objectives:
- Identify a two-dimensional representation (net) of a solid

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**Lesson 3: Volume**

Objectives:
- Count cubic units and use formulas to find the volume of rectangular prisms

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**Lesson 4: Irregular Shapes and Solids**

Objectives:
- Find the areas and volumes of irregular shapes and solids

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**Lesson 5: Solids Review (two-day lesson)**

**Lesson 6: Solids Unit Test**

**Unit 6: Measurement**

In this unit, your student will learn to select appropriate tools and units to measure capacity and weight in the customary system and volume and mass in the metric system. Using multiplication and division, your student will convert units of measure within the same system. Next your student will study elapsed time, start time, and end time, and use models and computations to solve problems involving minutes, hours, days, and weeks. Your student will also study temperature changes in both degrees Fahrenheit and degrees Celsius. The use of real measuring tools, such as thermometers, scales, and clocks, as well as real items, such as cups and daily schedules, will add meaning to your student’s study of measurement. This unit’s problem-solving strategy is “make a table.”

Objectives:
Lesson 1: Customary Units of Capacity

Objectives:
- Use a variety of customary units to measure liquid volume

Lesson 2: Metric Units of Capacity

Objectives:
- Use metric units to measure liquid volume

Lesson 3: Units of Weight and Mass

Objectives:
- Use units of mass and weight to determine the amount of matter an object has and how heavy or light an object is

Lesson 4: Converting Customary Units

Objectives:
- Convert customary units of measure using multiplication and division

Lesson 5: Converting Metric Units

Objectives:
- Convert metric units of measure using multiplication and division

Lesson 6: Measurement Review (two-day lesson)

Lesson 7: Measurement Unit Test

Unit 7: Solving and Writing Equations

This unit provides your student further practice with variables. The variables in this unit are used in equations that involve addition, subtraction, multiplication, or division. Your student will learn to isolate the variable in an equation in order to solve for the unknown number. Variables will also be used in inequalities. Your student will learn to solve for the variable and represent the solutions on a number line. Finally, your student will identify and write an equation for the pattern or relationship that exists between pairs of numbers that are recorded within a table. This unit’s problem-solving strategy is “draw a picture and write an equation.”

Objectives:
- Solve addition, subtraction, multiplication, and division equations
- Work with inequalities and the number line
- Determine patterns and equations

Lesson 1: Equal or Not Equal

Objectives:
- Learn and understand the properties of equality
Lesson 2: Solving Addition and Subtraction Equations

Objectives:
- Learn and understand how to use addition and subtraction to solve equations

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Lesson 3: Solving Multiplication and Division Equations

Objectives:
- Learn and understand how to use multiplication and division to solve equations

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Lesson 4: Patterns and Equations

Objectives:
- Complete a table of values for an equation or write an equation to describe the relationship between pairs of numbers in a table

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Lesson 5: Draw a Picture and Write an Equation

Objectives:
- Draw diagrams or pictures and write equations to solve problems

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Lesson 6: Solving and Writing Equations Review (two-day lesson)

Lesson 7: Solving and Writing Equations Unit Test

Unit 8: Equations and Graphs

In this unit, your student will study integers. A number line will give your student a visual of the sequence of positive and negative numbers and develop his understanding of integer values. Your student will use number lines on a coordinate plane to graph ordered pairs of integers. The study of integers will also include determining the distance between two integers and generating a list of ordered pairs, given the values of one variable in a given equation. The problem-solving strategy in this unit is “work backward.”

Objectives:
- Understand integers
- Work with ordered pairs
- Find distances on number lines and the coordinate plane
- Graph equations
- Use the work backward strategy

Lesson 1: Understanding Integers

Objectives:
- Read and write integers and represent them on a number line

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Lesson 2: Ordered Pairs

Objectives:
- Identify and graph points on a coordinate plane

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Lesson 3: Distances on Number Lines and the Coordinate Plane
• Use number lines and the coordinate plane to find distances involving positive and negative numbers

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**Lesson 4: Graphing Equations**

Objectives:
• Make a table of x- and y-values for an equation
• Use the ordered pairs to graph the equation

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**Lesson 5: More Patterns and Graphing**

Objectives:
• Use coordinate graphs to explore the relationship between two rules

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**Lesson 6: Data from Surveys/Making Line Plots**

Objectives:
• Collect data and record data in frequency tables and line plots
• Interpret the results
• Make a line plot from data in a frequency table

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**Lesson 7: Measurement Data**

Objectives:
• Use the information in a line plot to solve problems involving the data

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**Lesson 8: Bar Graphs and Picture Graphs**

Objectives:
• Make and interpret bar graphs, double-bar graphs, and picture graphs

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**Lesson 9: Equations and Graphs Review (two-day lesson)**

**Lesson 10: Equations and Graphs Unit Test**
ESSENTIAL MATH 6 A
Essential Math 6 A

In this middle school math course, the student will receive the extended instruction, review, and reinforcement needed to master prerequisite and grade-level math skills. The units and lessons within this course focus on the fundamental skills and standards the student will need in order to master the concepts from the previous and current grade level and be successful in math.

In this course, the student will use the four mathematical operations to solve a variety of problems with decimals and fractions. The study of patterns and variables precedes the solving of equations and inequalities. The student will learn number theory to help him understand divisibility, prime numbers, factors, and multiples. He will also learn about ratios, proportions, and percents and apply them to scale drawings.

Unit 1: Focus on Success in Math 6

In this unit, you will focus on ways to think about and approach mathematics. You will learn how to set personal goals, establish study strategies that reduce anxiety, and review ways to be an active learner. In addition, this unit introduces the various resources that are available to you in your Math 6 course.

Objectives:
- Assess personal readiness for studying and learning
- Recognize the importance of personal ownership of learning
- Reflect on personal strengths and weaknesses in order to improve mathematical performance
- Use resources to set goals

Lesson 1: Looking Ahead

Objectives:
- Describe the characteristics of quality goals
- Set goals for success in mathematics
- Reflect on strengths, weaknesses, and how to apply them
- Recognize the importance of personal effort to learning

Lesson 2: Gearing Up

Objectives:
- Identify the various resources that you can use in the course
- Modify goals to include using resources effectively

Unit 2: Whole Numbers and Decimals

In this unit, you will learn how to identify the place value of whole numbers and decimals, which you will then apply to comparing and ordering these types of numbers. You will apply estimation strategies as well as the properties of addition and multiplication as tools for solving problems. Also, you will learn how to use the order of operations to simplify numerical expressions. You will find the answers of addition, subtraction, multiplication, and division problems using whole numbers and decimals. Finally, you will learn and apply the four-step problem-solving strategy.

Objectives:
- Identify the place values of a given whole number or decimal, and use the value of the number or decimal to compare and order the numbers
- Apply the properties of addition and multiplication to solve problems
- Apply the order of operations to evaluate numerical expressions
- Perform operations with multi-digit whole numbers and decimals

Lesson 1: Identifying the Value of Whole Numbers

Objectives:
- Identify the place value of a digit in the given number
- Write numbers in three different forms
- Compare the value of two whole numbers

Lesson 2: Whole Number Estimation
Lesson 3: Computing with Whole Numbers

Objectives:
- Calculate to find the sum, difference, product, or quotient of two whole numbers

Lesson 4: Properties of Addition and Multiplication

Objectives:
- Apply the Commutative Property, Associative Property, or Identity Property of Addition or Multiplication to solve computation problems

Lesson 5: Order of Operations in Numerical Expressions

Objectives:
- Apply the order of operations to solve numerical expressions

Lesson 6: Whole Numbers and Operations Mid-Unit Review

Objectives:
- Utilize estimation strategies, properties of operations, and the order of operations to solve computation problems with whole numbers

Lesson 7: Identifying the Value of Decimals

Objectives:
- Identify the value of a specified digit in a decimal
- Apply the rules of rounding to decimals

Lesson 8: Comparing and Ordering Decimals

Objectives:
- Compare the value of decimals
- Identify the order of decimals based on their numerical value

Lesson 9: Decimal Addition and Subtraction

Objectives:
- Estimate the sums and differences of decimals by rounding
- Identify sums and differences by adding and subtracting decimals

Lesson 10: Decimal Multiplication

Objectives:
- Identify the product when a decimal is multiplied by a whole number or another decimal

Lesson 11: Multiplying and Dividing Decimals by Powers of Ten

Objectives:
- Identify the product or quotient when multiplying or dividing a decimal by a power of ten

Lesson 12: Decimal Division

Objectives:
- Identify the quotient when dividing a decimal by a whole number or another decimal

Lesson 13: Problem Solving: The Four-Step Plan

Objectives:
- Apply the four-step plan to solve word problems

Lesson 14: Whole Numbers and Decimals Review

Objectives:
• Identify how to use place value and computation skills in solving a real-world problem
• Find the answers to computation problems involving whole numbers and decimals

Lesson 15: Whole Numbers and Decimals Unit Test

Unit 3: Data and Graphs

In this unit, you will learn how to calculate the mean, median, mode, and range for a given set of data. You will also practice reading and creating a variety of visual representations of data, such as frequency charts, line plots, line graphs, bar graphs, box-and-whisker plots, double bar graphs, histograms, and stem-and-leaf plots. In addition, you will identify how graphs and statistics can be misleading. Finally, you will learn what makes a statistical question. This unit’s portfolio assignment is to develop a double-bar graph.

Objectives:
• Calculate to find the mean, median, mode, and range when given a specified set of data
• Create a double-bar graph
• Interpret data from a visual representation, such as a bar graph, histogram, or box-and-whisker plot
• Explain how graphs and statistics can be misleading

Lesson 1: Mean and Outliers

Objectives:
• Compute the mean when given a set of numbers

Lesson 2: Median and Mode

Objectives:
• Identify the median and mode of a given set of numbers
• Explain which measure of central tendency is best in a given situation

Lesson 3: Tables and Plots (two-day lesson)

Objectives:
• Identify the range, middle value, upper value, and lower value of a set of numbers
• Read a frequency table, line plot, or a box-and-whisker plot to find the mean, median, mode, or range

Lesson 4: Bar Graphs and Line Graphs (two-day lesson)

Objectives:
• Create a double bar graph when given a set of data
• Create and read a single line graph

Lesson 5: Histograms

Objectives:
• Identify the value of a bar in a given histogram

Lesson 6: Shape and Variability of Data

Objectives:
• Find the mean and range of a given data set
• Identify the degree of variability in a chart, graph, or plot

Lesson 7: Stem-and-Leaf Plots

Objectives:
• Order data to create a stem-and-leaf plot
• Read a stem-and-leaf plot in order to compute the range and measures of central tendency

Lesson 8: Misleading Graphs and Statistics

Objectives:
• Analyze graphs for misleading information

Lesson 9: Statistical Questions

Objectives:
• Differentiate between a statistical question and a question that is not statistical

Lesson 10: Data and Graphs Review

Objectives:
• Explain preferred methods for representing data and identify real-world scenarios that could be represented in this manner

Lesson 11: Data and Graphs Test

Unit 4: Patterns and Variables

In this unit, you will be learning about patterns, expressions, and equations. First, you will be discovering numerical patterns and identifying the rule for the pattern, followed by using exponents to simplify certain numerical expressions. Then, you will be using variables to represent unknown numbers in expressions and equations. Next, you will learn what an equation is and the different strategies to solve it. Then, you will learn another property, the Distributive Property, which provides another strategy for solving more complex computation problems.

Objectives:
• Identify numerical patterns and their rules
• Simplify a numerical expression through the use of exponents
• Evaluate expressions using the given values
• Apply the Distribute Property to solve computation problems
• Generate an equation and use it to solve a problem

Lesson 1: Patterns, Rules, and Numerical Expressions

Objectives:
• Identify numerical patterns
• Define the rule for a sequence

Lesson 2: What Is an Exponent?

Objectives:
• Identify the exponent for a given expression
• Apply the order of operations to solve expressions with exponents

Lesson 3: Scientific Notation

Objectives:
• Identify the standard and scientific forms for a numerical value

Lesson 4: Algebraic Expressions

Objectives:
• Differentiate between a numerical and algebraic expression
• Evaluate algebraic expressions for the given quantity

Lesson 5: From Words to Algebraic Expressions

Objectives:
• Translate words into algebraic expressions
Lesson 6: What Are Equations?

Objectives:
- Calculate the answer to a one-step question by utilizing mental math strategies

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Lesson 7: Equations with Addition

Objectives:
- Demonstrate the Subtraction Property of Equality when solving equations with addition

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Lesson 8: Equations with Subtraction

Objectives:
- Demonstrate the Addition Property of Equality when solving equations with subtraction

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Lesson 9: Equations with Multiplication and Division

Objectives:
- Demonstrate the Division Property of Equality when solving an equation with multiplication
- Demonstrate the Multiplication Property of Equality when solving an equation with division

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Lesson 10: Distributive Property

Objectives:
- Apply the distributive property in order to generate equivalent expressions

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Lesson 11: Problem Solving (two-day lesson)

Objectives:
- Develop and solve an equation to solve a word problem

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Lesson 12: Patterns and Variables Review

Objectives:
- Identify numerical patterns and their rules
- Simplify a numerical expression through the use of exponents
- Evaluate expressions using the given values
- Apply the Distributive Property to solve computation problems
- Generate an equation and use it to solve problems

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Lesson 13: Patterns and Variables Test

Unit 5: Number Theory and Fractions

In this unit, you will be applying your multiplication and division skills to identify factors, prime factorization, and multiples of numbers. Also, you will apply the Distributive Property to create equivalent numerical and algebraic expressions. In the area of fractions, you will apply your skills of finding factors and multiples to find equivalent fractions, simplify fractions, and identify the least common denominator. You will also practice converting
between various forms, such as mixed numbers into improper fractions and fractions into decimals.

Objectives:
- Identify factors of numbers and apply them to identify the prime factorization of numbers
- Use factors and multiples to find the least common denominator
- Generate equivalent fractions and expressions
- Convert between forms of numbers, such as mixed numbers into fractions and fractions into decimals
- Compare and order fractions and decimals

Lesson 1: Divisibility and Mental Math

Objectives:
- Identify whether a number is divisible by a second number
- Identify whether a number is even or odd

Lesson 2: Prime Time (two-day lesson)

Objectives:
- Distinguish between prime and composite numbers
- Identify the factors of a composite number

Lesson 3: Greatest Common Factor

Objectives:
- Identify the greatest common factor of two or more numbers

Lesson 4: Writing Expressions That Are Equivalent (two-day lesson)

Objectives:
- Generate equivalent numerical and algebraic expressions using the Distributive Property

Lesson 5: Equivalent Fractions

Objectives:
- Identify fractions that are equivalent to the original fraction

Lesson 6: Fractions Greater Than 1

Objectives:
- Convert mixed numbers into improper fractions and improper fractions into mixed numbers

Lesson 7: Multiples

Objectives:
- Identify the least common multiple of at least two numbers

Lesson 8: Comparing and Ordering Fractions (two-day lesson)

Objectives:
- Compare the value of the given fractions and mixed numbers
- Identify the numerical order of a given set of fractions and/or mixed numbers

Lesson 9: Fractions and Decimals (two-day lesson)

Objectives:
- Convert decimals into fractions and fractions into decimals
- Identify the order of a set of fractions and decimals from least to greatest and greatest to least

Lesson 10: Number Theory and Fractions Review
Lesson 11: Number Theory and Fractions Test

Unit 6: Adding and Subtracting Fractions

In this unit, you will be rounding and estimating sums and differences of fractions and mixed numbers. Then you will calculate the actual sums and differences of fractions with like and unlike denominators. Next, you will apply your skills in solving addition and subtraction problems with mixed numbers, sometimes needing to rename the mixed number. Also, you will be solving addition and subtraction equations with fractions and mixed numbers. Finally, you will solve problems that use elapsed time, and apply these skills by completing a portfolio assignment with real-world scenarios.

Objectives:
- Estimate sums and differences of fractions and whole numbers
- Calculate the sums and differences of fractions and mixed numbers
- Identify the solution to an equation with fractions
- Calculate the elapsed time in a given scenario

Lesson 1: Rounding/Estimating Fractions and Mixed Numbers

Objectives:
- Demonstrate rounding fractions and mixed numbers to the nearest one-half
- Calculate the estimated sum or difference of fractions and mixed numbers

Lesson 2: Add and Subtract Fractions with Like Denominators

Objectives:
- Find the sum or difference when two or more fractions with like denominators are added or subtracted.

Lesson 3: Addition of Fractions with Unlike Denominators

Objectives:
- Calculate the sum of two or more fractions with unlike denominators added together

Lesson 4: Subtraction of Fractions with Unlike Denominators

Objectives:
- Calculate the difference of two fractions with unlike denominators

Lesson 5: Adding and Subtracting Fractions Mid-Unit Review

Objectives:
- Add and subtract fractions with like and unlike denominators

Lesson 6: Addition with Mixed Numbers

Objectives:
- Calculate the sum when adding with mixed numbers.

Lesson 7: Subtraction with Mixed Numbers

Objectives:
- Calculate the difference when subtracting with mixed numbers

Lesson 8: Solving Equations with Fractions (two-day lesson)

Objectives:
- Calculate the answer to an equation with fractions
Lesson 9: Elapsed Time (two-day lesson)

Objectives:
- Calculate the time that has elapsed between the start and end times

Lesson 10: Adding and Subtracting Fractions Review

Objectives:
- Explain the method for solving problems with addition and subtraction of fractions and mixed numbers

Lesson 11: Adding and Subtracting Fractions

Unit 7: Multiplying and Dividing Fractions

In this unit, you will apply your multiplication and division skills to fractions and mixed numbers. First, you will learn how to multiply whole numbers, fractions, and mixed numbers. Next, you will learn how to identify the reciprocal of a number and use that when dividing fractions and mixed numbers. Then you will use your problem-solving skills to solve equations with fractions. Finally, you will learn about the customary system of measurement and how to convert from one unit to another.

Objectives:
- Calculate the product of whole numbers, fractions, and mixed numbers
- Identify the reciprocal of a fraction
- Calculate the quotient of fractions and mixed numbers
- Identify customary units of measurement
- Convert between units of measurement in the customary system

Lesson 1: Multiplying a Whole Number and a Fraction

Objectives:
- Calculate the product of a whole number and a fraction

Lesson 2: Multiplying Two or More Fractions

Objectives:
- Calculate the product of two or more fractions

Lesson 3: Multiplication with Mixed Numbers

Objectives:
- Calculate the product of mixed numbers

Lesson 4: Multiplication of Fractions Review

Objectives:
- Calculate the product of fractions, whole numbers, and mixed numbers

Lesson 5: Division with Fractions (two-day lesson)

Objectives:
- Identify the reciprocal of a given fraction
- Calculate the quotient of two fractions

Lesson 6: Division with Mixed Numbers

Objectives:
- Calculate the quotient of mixed numbers

Lesson 7: Solving Equations with Fractions Through Multiplication

Objectives:
- Calculate the answer to an equation with fractions through multiplication

Lesson 8: The Customary System

Objectives:
- Identify the best customary unit for a given object
Lesson 9: Changing Units in the Customary System (two-day lesson)

Objectives:
- Convert measurements written in customary units into other customary units

Lesson 10: Multiplying and Dividing Fractions Review

Objectives:
- Calculate the product of whole numbers, fractions, and mixed numbers
- Identify the reciprocal
- Calculate the quotient of fractions and mixed numbers
- Identify customary units of measurement
- Calculate how to convert between units of measurement in the customary system

Lesson 11: Multiplying and Dividing Fractions Test
ESSENTIAL MATH 6 B
Essential Math 6 B

In this middle school math course, the student will receive the extended instruction, review, and reinforcement needed to master prerequisite and grade-level math skills. The units and lessons within this course focus on the fundamental skills and standards the student will need in order to master the concepts from the previous and current grade level and be successful in math.

In this course, the student will study the fundamentals of data and graphs as well as the basic principles of probability. He will explore the basic tools of geometry and apply skills to the study of geometry and measurement. The introduction to integers will prepare the student for the study of equations and inequalities.

Unit 1: Ratios, Proportions, and Percents

In this unit, you will identify and write ratios to show the comparison between two amounts. Then you will use what you learned about ratios to generate equivalent ratios, find unit rates, and solve proportions. Next, you will learn how to write a percent when given a fraction or decimal. Finally, you will apply what you learned about percents to find the percent of a number, interpret circle graphs, and calculate various percents found in everyday living.

Objectives:
- Identify the ratio of two amounts in simplest form
- Create and solve proportions to identify the missing amount
- Solve problems involving ratios, unit rates, and proportions
- Calculate the percent of a number
- Solve problems involving percents; use circle graphs to solve problems

Lesson 1: Ratios and Equivalent Ratios (two-day lesson)

Objectives:
- Identify the ratio for a given situation
- Identify at least one equivalent ratio for the given ratio

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Lesson 2: Understanding and Using Unit Rates (two-day lesson)

Objectives:
- Calculate the unit rate given two amounts
- Find and use unit rates and unit costs

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Lesson 3: Proportions

Objectives:
- Determine whether two ratios form a proportion
- Identify the missing value in a proportion

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Lesson 4: Scale Drawings

Objectives:
- Calculate the distance of an actual item or the model using a scale

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Lesson 5: Using Ratios, Rates, and Proportions

Objectives:
- Calculate ratios, unit rates, equivalent rates, and the missing values in proportions

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Lesson 6: Writing Percents, Fractions, and Decimals (two-day lesson)

Objectives:
- Identify the decimal, fractional form, and percent form for a given value
- Ordering percents, fractions, and decimals

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Lesson 7: Learning About Percents of Numbers (two-day lesson)

Objectives:
- Calculate a percentage of a given number
- Identify the whole number when given the part and percentage

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Lesson 8: Using Circle Graphs

Objectives:
- Use a circle graph to solve problems

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Lesson 9: Using Percents in Everyday Life

Objectives:
- Calculate sales tax, amount to tip, discounts, and sale price

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Lesson 10: Ratios, Proportions, and Percents Review

Objectives:
- Use your knowledge of ratios, rates, proportions, and percents to solve problems
- Review key words and assessments from the unit

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Lesson 11: Ratios, Proportions, and Percents Unit Test

Unit 2: Tools of Geometry

In this unit, you will classify lines, angles, and polygons by their size, shape, or orientation. You will calculate the missing angle measure when given the remaining angle measurements, particularly in a triangle or quadrilateral. You will distinguish between shapes that are congruent and shapes that are similar. Next, you will learn about line symmetry. Then, you will learn about transformations, which include translations, reflections, and rotations.

Objectives:
- Classify types of lines, angles, triangles, polygons, and quadrilaterals when given a figure
- Distinguish between congruent and similar figures
- Identify lines of symmetry
- Identify transformations

Lesson 1: Points, Segments, Rays, Lines, Planes

Objectives:
- Identify and name the specified point, segment, ray, line, or plane when given a figure

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Lesson 2: Types of Angles

Objectives:
- Classify types of angles
Lesson 3: Special Angles (two-day lesson)

Objectives:
- Identify and classify special angle pairs in a figure
- Calculate the measure of an angle in a special angle pair

Lesson 4: Types of Triangles (two-day lesson)

Objectives:
- Classify a triangle based on its angle measures or by its sides

Lesson 5: Points, Lines, Angles, and Triangles Review

Objectives:
- Classify lines, angles, and triangles when given a figure

Lesson 6: Classifying Quadrilaterals and Other Polygons (two-day lesson)

Objectives:
- Classify a polygon based on the number and length of its sides
- Determine missing angle measures in a quadrilateral

Lesson 7: Figures that are Congruent or Similar

Objectives:
- Classify figures as being congruent, similar, or neither

Lesson 8: Line Symmetry

Objectives:
- Identify lines of symmetry

Lesson 9: Translations, Reflections, and Rotations

Objectives:
- Classify transformations as translations, reflections, or rotations

Lesson 10: Tools of Geometry Review (two-day lesson)

Objectives:
- Classify lines, angles and figures
- Identify congruent and similar figures
- Identify lines of symmetry
- Classify transformations

Lesson 11: Tools of Geometry Unit Test

Unit 3: Geometry and Measurement

In this unit, you will learn the different units of measurement in the metric system and convert among units. Then, you will find the perimeter and area of polygons. Next, you will find the perimeter and area of circles. Later in the unit, you will learn about three-dimensional figures and how to find the surface area and volume of rectangular prisms. As your portfolio assessment, you will be required to locate five circles and five rectangular prisms in your home, and use their dimensions to calculate circumference, area, and volume.

Objectives:
- Identify metric units and convert a value from one unit to another within the same category
- Calculate the perimeter and area of polygons
- Calculate the circumference and area of a circle
- Calculate the surface area and volume of prisms

Lesson 1: Metric Units

Objectives:
• Identify the best metric unit of measure for a given situation

**Lesson 2: Conversions in the Metric System**

Objectives:
• Calculate a measurement in a metric unit, given the measurement in another metric unit in the same category

**Lesson 3: Perimeters and Areas of Rectangles and Squares**

Objectives:
• Calculate the perimeter and area of rectangles and squares

**Lesson 4: Areas of Parallelograms, Trapezoids, and Triangles (two-day lesson)**

Objectives:
• Calculate the area of parallelograms, trapezoids, and triangles

**Lesson 5: Finding the Area Using Composites**

Objectives:
• Find the area of a composite figure

**Lesson 6: Mid-Unit Review (two-day lesson)**

Objectives:
• Identify the best metric unit of measure for a given situation
• Calculate the perimeter or area of a figure given the formula

**Lesson 7: Circumference of a Circle**

Objectives:
• Calculate the circumference of a circle

**Lesson 8: Area of a Circle**

Objectives:
• Calculate the area of a circle when given the length of the radius or diameter

**Lesson 9: Three-Dimensional Figures**

Objectives:
• Name three-dimensional figures

**Lesson 10: Prisms and Surface Area**

Objectives:
• Find the surface area of prisms

**Lesson 11: Rectangular Prisms and Volume (two-day lesson)**

Objectives:
• Calculate the volume of a rectangular prism

**Lesson 12: Geometry and Measurement Review (two-day lesson)**

Objectives:
• Calculate the perimeter, area, surface area, and/or volume of a given figure
• Name two-dimensional and three-dimensional figures
• Identify metric units and convert from one unit to another
Lesson 13: Geometry and Measurement Unit Test

Unit 4: Integers

In this unit, you will be working with integers. You will learn what an integer is and how to find the absolute value of integers. Then you will compare integers as well as order them from least to greatest. Next, you will work on your computation skills by adding, subtracting, multiplying, and dividing integers. Then you will solve equations with integers.

Objectives:
- Identify the absolute value of an integer and locate where integers fall on the number line
- Compare and order a set of integers
- Calculate the sum, difference, product, and quotient of integers
- Solve equations with integers

Lesson 1: What Is an Integer?

Objectives:
- Locate an integer on the number line
- Identify the absolute value of an integer

Lesson 2: Comparing and Ordering Integers

Objectives:
- Compare two integers
- Identify the order of a set of integers

Lesson 3: Addition of Integers

Objectives:
- Calculate the sum of integers

Lesson 4: Subtraction of Integers

Objectives:
- Calculate the difference of integers

Lesson 5: Multiplication of Integers

Objectives:
- Calculate the product of integers

Lesson 6: Division of Integers

Objectives:
- Calculate the quotient of integers

Lesson 7: Solving Equations with Integers

Objectives:
- Solve equations with integers

Lesson 8: Applications of Integers (two-day lesson)

Objectives:
- Calculate the sum or difference of integers to solve application problems

Lesson 9: Integers Review

Objectives:
- Identify the absolute value of an integer and locate where integers fall on the number line
- Compare and order a set of integers from least to greatest
- Calculate the sum, difference, product, and quotient of integers
- Solve equations with integers

Lesson 10: Integers Unit Test

Unit 5: Graphing, Equations, and Inequalities
In this unit, you will be learning about graphing, functions, two-step equations, and inequalities. First, you will plot points in any of the four quadrants on the coordinate plane, and draw polygons in the coordinate plane when given a set of ordered pairs. Then you will identify missing values in a function table, find the rule for the function, and graph it. Next, you will solve two-step equations. Finally, you will write, graph, and solve inequalities. For your portfolio assignment, you will apply your knowledge of graphing polygons, functions, and inequalities.

Objectives:
- Locate and name the ordered pair for points on the coordinate plane
- Write rules and equations for functions
- Evaluate functions
- Identify the solution to a two-step equation
- Name, graph, and solve inequalities

Lesson 1: Understanding The Coordinate Plane (two-day lesson)

Objectives:
- Name points by their ordered pairs
- Graph points in the coordinate plane

Lesson 2: Using Rational Numbers on the Coordinate Plane (two-day lesson)

Objectives:
- Plot ordered pairs consisting of rational numbers on a coordinate plane

Lesson 3: Finding Distances on the Coordinate Plane

Objectives:
- Calculate the distance between two points on a coordinate plane
- Create a polygon in the coordinate plane from a set of ordered pairs

Lesson 4: What are Functions? (two-day lesson)

Objectives:
- Identify the output or y-value when given an input or x-value and the rule
- Calculate the rule when given the input and output
- Graph the function on a coordinate plane

Lesson 5: Independent and Dependent Variables

Objectives:
- Identify the independent and dependent variable in a function
- Generate an equation for the function

Lesson 6: Graphing and Functions Review

Objectives:
- Discuss the definition of a function and identify an example to support the definition

Lesson 7: Solving Equations with Two Steps

Objectives:
- Solve two-step equations
- Use two-step equations to solve problems

Lesson 8: Writing and Graphing Inequalities (two-day lesson)

Objectives:
- Represent a situation by writing and/or graphing an inequality

Lesson 9: Solving One-Step Inequalities
Lesson 10: Graphing, Equations, and Inequalities Review (two-day lesson)

Objectives:
- Locate and name the ordered pair for points on the coordinate plane
- Write rules and equations for functions
- Evaluate functions
- Identify the solution to a two-step equation
- Name, graph, and solve inequalities

Lesson 11: Graphing, Equations, and Inequalities Test

Unit 6: Exploring Probability

In this unit, you will develop your skills in the area of probability. You will learn strategies to count the number of possible outcomes and then apply these skills to identify the probability of an event. Then you will calculate the theoretical and experimental probability of events. Next, you will use your prediction skills to predict the probability of an event using data. Finally, you will identify the probability of independent events, such as flipping a coin twice.

Objectives:
- Calculate the total number of outcomes
- Calculate the theoretical and/or experimental probability
- Predict the probability of an event based on data
- Calculate the probability of independent events

Lesson 1: Counting Outcomes

Objectives:
- Identify the total number of possible outcomes using either a tree diagram or the counting principle

Lesson 2: What Is Probability?

Objectives:
- Identify the probability that an event will or will not occur

Lesson 3: Theoretical and Experimental Probability (two-day lesson)

Objectives:
- Identify the theoretical and experimental probability of a situation
- Conduct a series of experiments and communicate findings in writing

Lesson 4: Using Data to Make Predictions

Objectives:
- Make a prediction based on data

Lesson 5: Probability of Independent Events

Objectives:
- Calculate the probability of independent events for a given situation

Lesson 6: Exploring Probability Review

Objectives:
- Calculate the total number of outcomes
- Calculate theoretical and/or experimental probability
- Predict the probability of an event based on data
- Calculate the probability of independent events

Lesson 7: Exploring Probability Unit Test
ESSENTIAL MATH 7 A
Essential Math 7 A

In this course, the student will reinforce proficiency working with rational numbers and solving equations and inequalities. The student will extend his or her study of number theory and operations with rational numbers to include exponents. The student will continue his or her study of ratios and proportions and apply these skills to scale drawings and similar figures. The student will also extend work with percentages to include working with the percent equation and finding percent of change.

Unit 1: Focus on Success in Math 7

In this unit, you will focus on ways to think about and approach mathematics. You will learn how to set personal goals, establish study strategies that reduce math anxiety, and review ways to be an active learner. In addition, this unit introduces the various resources that are available to you in your Math 7 course.

Objectives:
- Reflect on personal strengths and weaknesses in order to improve mathematical performance
- Recognize the importance of personal ownership of learning
- Assess personal readiness for study and learning
- Use resources to assist with goal-setting and attainment

Lesson 1: Planning Ahead

Objectives:
- Describe the characteristics of quality goals
- Set goals for success in mathematics
- Reflect on strengths, weaknesses, and how to apply them
- Recognize the importance of being an active learner

Lesson 2: Resources for Success

Objectives:
- Identify the various resources that you can use in the course
- Modify goals to include using resources effectively

Unit 2: Decimals and Integers

In this unit, you will learn to add, subtract, multiply, and divide decimals. You will learn how to align decimals to find sums and differences and how to properly place decimal points in products and quotients. You will apply properties of addition and multiplication as tools for solving problems using mental math. You will perform basic operations using a set of numbers called integers, which includes both positive and negative numbers. You will also learn how to represent a large set of numbers with just one number, called a measure of central tendency (such as mean, median, or mode). Finally, you will practice constructing and interpreting box-and-whisker plots to analyze distribution of data.

Objectives:
- Perform operations on decimals
- Perform operations on integers
- Calculate measures of central tendency

Lesson 1: Adding and Subtracting Decimals

Objectives:
- Add and subtract decimals
- Apply properties of addition to add decimal numbers using mental math

Lesson 2: Multiplying Decimals

Objectives:
- Multiply decimals
- Apply properties of multiplication to multiply decimal numbers using mental math

Lesson 3: Dividing Decimals

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Objectives:
- Divide decimals

Lesson 4: Comparing and Ordering Integers

Objectives:
- Compare and order integers
- Find absolute values

Lesson 5: Adding Integers

Objectives:
- Add integers with the same sign
- Add integers with different signs

Lesson 6: Subtracting Integers

Objectives:
- Subtract integers with the same sign
- Subtract integers with different signs

Lesson 7: Multiplying and Dividing Integers

Objectives:
- Multiply and divide integers with the same sign
- Multiply and divide integers with different signs

Lesson 8: Mean, Median, Mode, and Range

Objectives:
- Describe data using mean, median, mode, and range

Lesson 9: Box-and-Whisker Plots

Objectives:
- Construct and interpret box-and-whisker plots

Lesson 10: Decimals and Integers Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords, formulas, and all important concepts that may be covered on this exam

Lesson 11: Decimals and Integers Unit Test

Unit 3: Exponents, Factors, and Fractions

In this unit, you will begin working with exponents and learning how to simplify expressions using the order of operations. You will work with fractions of all sorts—both proper and improper—as well as mixed numbers. You will learn how to compare and order fractions and how to write them in simplest form. You will also discover rules and shortcuts for converting fractions to decimals and decimals to fractions.

Objectives:
- Evaluate exponents
- Compare fractions
- Convert between fractions and decimals

Lesson 1: Exponents and Order of Operations

Objectives:
- Write and simplify expressions with exponents
Lesson 2: Divisibility Tests

Objectives:
- Apply divisibility rules to integers

Lesson 3: Prime Factorization

Objectives:
- Determine factors and multiples of numbers by applying prime factorization

Lesson 4: Simplifying Fractions

Objectives:
- Determine equivalent fractions by simplifying

Lesson 5: Comparing and Ordering Fractions

Objectives:
- Compare and order fractions

Lesson 6: Mixed Numbers and Improper Fractions

Objectives:
- Convert between improper fractions and mixed numbers

Lesson 7: Mid-Unit Review (two-day lesson)

Objectives:
- Review the concepts, key words, and all important concepts covered so far in this unit

Lesson 8: Fractions and Decimals

Objectives:
- Convert between fractions and decimals

Lesson 9: Comparing Numbers in Different Forms

Objectives:
- Compare and order rational numbers

Lesson 10: Scientific Notation

Objectives:
- Convert numbers between scientific notation and standard form

Lesson 11: Exponents, Factors, and Fractions Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, key words, formulas, and other important information that may be covered on this exam

Lesson 12: Exponents, Factors, and Fractions Unit Test

Unit 4: Operations with Fractions
In this unit, you will perform operations—addition, subtraction, multiplication and division—on rational numbers like fractions and mixed numbers. You will begin by extending your estimation skills to include problems involving fractions and mixed numbers. Finally, you will learn to convert units of measure in both the standard and metric systems.

Objectives:
- Add and subtract rational numbers
- Multiply and divide rational numbers
- Convert standard and metric units of measure

**Lesson 1: Estimating With Fractions and Mixed Numbers**

Objectives:
- Estimate sums, differences, products, and quotients of fractions

**Lesson 2: Adding and Subtracting Fractions**

Objectives:
- Add and subtract fractions and solve problems involving fractions.

**Lesson 3: Adding and Subtracting Mixed Numbers**

Objectives:
- Add and subtract mixed numbers

**Lesson 4: Adding and Subtracting Rational Numbers**

Objectives:
- Add and subtract rational numbers

**Lesson 5: Multiplying Fractions and Mixed Numbers**

Objectives:
- Multiply fractions and mixed numbers

**Lesson 6: Multiplication of Rational Numbers**

Objectives:
- Multiply rational numbers

**Lesson 7: Dividing Fractions and Mixed Numbers**

Objectives:
- Divide fractions and mixed numbers

**Lesson 8: Division of Rational Numbers**

Objectives:
- Divide rational numbers

**Lesson 9: Changing Units in the Customary System**

Objectives:
- Convert standard units of length, weight, and capacity
Lesson 10: Changing Units in the Metric System

Objectives:
- Convert metric units of length, weight, and capacity

Lesson 11: Operations with Fractions Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 12: Operations with Fractions Unit Test

Unit 5: Equations and Inequalities

In this unit, you'll be using basic algebraic skills to solve an equation for an unknown quantity called a variable. You'll work up through simple one-step equations to more advanced two-step equations. Then you will solve inequalities and represent the solutions on a number line.

Objectives:
- Write algebraic expressions
- Solve one-step and two-step equations
- Solve and graph inequalities

Lesson 1: Evaluating and Writing Algebraic Expressions

Objectives:
- Write and evaluate algebraic expressions

Lesson 2: Simplifying Expressions

Objectives:
- Apply the Distributive Property to expand expressions
- Simplify expressions by combining like terms and applying order of operations

Lesson 3: Using Number Sense to Solve Equations

Objectives:
- Solve one-step equations using substitution, mental math, and estimation

Lesson 4: Solving One-Step Equations by Adding/Subtracting

Objectives:
- Solve equations by adding or subtracting

Lesson 5: Solving One-Step Equations by Multiplying/Dividing

Objectives:
- Solve equations by multiplying or dividing
Lesson 6: Exploring Two-Step Problems

Objectives:
- Write and evaluate expressions with two operations
- Solve two-step equations using number sense

Lesson 7: Solving Two-Step Equations

Objectives:
- Solve two-step equations using inverse operations

Lesson 8: Solving Equations of the Form \( p(x + q) = r \)

Objectives:
- Apply the Distributive Property to solve equations

Lesson 9: Graphing and Writing Inequalities

Objectives:
- Graph and write algebraic inequalities

Lesson 10: Solving Inequalities by Adding and Subtracting

Objectives:
- Solve inequalities by adding or subtracting

Lesson 11: Solving Inequalities by Multiplying or Dividing

Objectives:
- Solve inequalities by multiplying or dividing

Lesson 12: Solving Two-Step Inequalities

Objectives:
- Solve two-step inequalities and graph the solutions on a number line

Lesson 13: Equations and Inequalities Review (two-day lesson)

Objectives:
- Discuss the meaning of an equation and how to keep an equation balanced
- Review notes, key words, and homework
- Use online tools to practice skills studied in this unit

Lesson 14: Equations and Inequalities Unit Test

Unit 6: Ratios, Rates, and Proportions

A ratio is a comparison of two things. A proportion is an equation stating that two ratios are equivalent to each other. In this unit, you will use ratios and proportions to find unknown quantities. At the end of the unit, you will complete a portfolio project where you will create a scale drawing of your dream room.

Objectives:
Lesson 1: Ratios

Objectives:
• Create ratios to compare given quantities
• Recognize equivalent ratios

Lesson 2: Unit Rates and Proportional Reasoning

Objectives:
• Apply proportional reasoning to compute unit rates and unit costs

Lesson 3: Unit Rates and Ratios of Fractions

Objectives:
• Apply proportional reasoning to compute unit rates associated with ratios of fractions

Lesson 4: Using Conversion Factors

Objectives:
• Apply conversion factors to convert measures to varying units

Lesson 5: Proportions

Objectives:
• Evaluate ratios to determine if they form a proportional relationship

Lesson 6: Solving Proportions

Objectives:
• Identify the unit rate in proportional relationships
• Use unit rates, cross products, and number sense to solve problems

Lesson 7: Mid-Unit Review

Objectives:
• Review and reinforce understanding of ratios, rates, and proportions

Lesson 8: Similar Figures (two-day lesson)

Objectives:
• Evaluate figures for similarity
• Formulate and solve proportions to discover missing side lengths of similar polygons

Lesson 9: Maps and Scale Drawings

Objectives:
• Apply proportions to interpret scale drawings and solve problems based on scale ratios

Lesson 10: Ratios, Rates, and Proportions Review (two-day lesson)

Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 11: Ratios, Rates, and Proportions Unit Test

Unit 7: Percents

This unit will focus on percentages. People use percentages often in everyday life, from calculating the score on a test to finding the sale price of a shirt. At the end of this unit, you’ll be able to use percentages to solve real-world problems. The portfolio assessment for
this unit will be a project in which you will calculate the after-tax sale price of items you find online.

Objectives:
- Convert between fractions, decimals, and percentages
- Solve percent problems

**Lesson 1: Understanding Percents**

Objectives:
- Create graphic models of percents
- Rewrite percents as equivalent ratios

**Lesson 2: Percents, Fractions, and Decimals (two-day lesson)**

Objectives:
- Convert fractions, decimals, and percents to equivalent fractions, decimals, or percents

**Lesson 3: Percents Greater Than 100% or Less Than 1%**

Objectives:
- Evaluate and convert percents greater than 100%
- Evaluate and convert percents less than 1%

**Lesson 4: Finding a Percent of a Number**

Objectives:
- Estimate and calculate the percent of a given number

**Lesson 5: Mid-Unit Review (two-day lesson)**

Objectives:
- Review and reinforce understanding of percents

**Lesson 6: Solving Percent Problems Using Proportions**

Objectives:
- Solve percent problems by applying proportions

**Lesson 7: Solving Percent Problems Using Equations**

Objectives:
- Solve percent problems by generating and solving equations

**Lesson 8: Applications of Percent (two-day lesson)**

Objectives:
- Generate and solve equations involving real-world applications of percents
- Estimate solutions to problems involving real-world applications of percents

**Lesson 9: Finding Percent of Change**

Objectives:
- Solve applications of percent problems by determining percents of increase and decrease

**Lesson 10: Percents Review (two-day lesson)**

Objectives:
- Review your notes, key words, steps, and other important information that may be covered on the exam

**Lesson 11: Percents Unit Test**
ESSENTIAL MATH 7 B
Essential Math 7 B

In this middle school math course, the student will receive the extended instruction, review, and reinforcement needed to master prerequisite and grade-level math skills. The units and lessons within this course focus on the fundamental skills and standards the student will need in order to master the concepts from the previous and current grade level and be successful in math.

In this course, the student will continue to explore geometry by classifying polygons and using measurement skills to find the perimeter, area, and volume of geometric figures. In addition to learning basic probability and permutations, the student will begin algebra studies with the study of patterns, functions, and graphs.

Unit 1: Geometry

In this unit, you will work with basic geometric ideas. You will learn how to classify angles, triangles, and polygons and identify the parts of a circle. Lastly you will construct different types of geometric figures.

Objectives:
- Identify lines, segments, and rays
- Identify and classify angles and polygons
- Calculate missing angle measurements from a triangle
- Analyze and construct circles and circle graphs

Lesson 1: Lines and Planes

Objectives:
- Identify lines, planes, points, rays, segments
- Distinguish between parallel, perpendicular, and skew lines

Lesson 2: Identifying and Classifying Angles

Objectives:
- Classify acute, right, obtuse, and straight angles
- Classify pairs of angles as adjacent
- Write and solve equations to determine missing angle measures

Lesson 3: Special Angle Pairs

Objectives:
- Classify sets of angles as complementary, supplementary, and vertical
- Apply knowledge of angle theorems to determine missing angle measures

Lesson 4: Classifying Triangles

Objectives:
- Classify triangles by side length and angle measure
- Write and solve equations to determine missing angle measures

Lesson 5: Drawing Triangles

Objectives:
- Construct triangles from three measures of angles or sides
- Evaluate triangle characteristics to distinguish unique triangles

Lesson 6: Classifying Polygons

Objectives:
- Identify polygons according to side and angle measures
- Distinguish between regular and irregular polygons

Lesson 7: Classifying Quadrilaterals

Objectives:
- Identify special quadrilaterals according to side and angle measures

Lesson 8: Congruent Figures
Objectives:
- Recognize congruent figures
- Analyze congruent figures to determine missing measures

**Lesson 9: Circles**

Objectives:
- Recognize the parts of a circle and their relationships to one another

**Lesson 10: Circle Graphs**

Objectives:
- Construct circle graphs with given conditions
- Analyze data contained in a circle graph

**Lesson 11: Constructions**

Objectives:
- Create congruent line segments and perpendicular bisectors using a compass and straightedge

**Lesson 12: Geometry Unit Review (two-day lesson)**

Objectives:
- Organize your time and study materials
- Review your notes, key words, steps, and other important information that may be covered on the exam

**Lesson 13: Geometry Unit Test**

**Unit 2: Measurement**

This unit will take some of the basic ideas you learned previously and put them to work. In this unit, you will be calculating perimeter, area, surface area, and volume of figures. In addition, you will be introduced to irrational numbers. You will demonstrate what you learned in this unit with a portfolio project in which you will calculate the surface area and volume of common household items.

Objectives:
- Calculate the area and perimeter of various polygons and circles
- Evaluate square roots
- Calculate the surface area and volume of prisms and cylinders

**Lesson 1: Area and Perimeter of Parallelograms**

Objectives:
- Calculate the area and perimeter of parallelograms

**Lesson 2: Area and Perimeter of Triangles**

Objectives:
- Calculate the area and perimeter of triangles

**Lesson 3: Area of Trapezoids and Other Figures**

Objectives:
- Apply area formulas to calculate areas of trapezoids and other irregular polygons

**Lesson 4: Circumference and Area of a Circle**

Objectives:
- Apply appropriate formulas to calculate circumference and area of a circle

**Lesson 5: Square Roots and Irrational Numbers**

Objectives:
Lesson 6: Mid-Unit Review

Objectives:
- Review and reinforce your understanding of measurement

Lesson 7: Three-Dimensional Figures

Objectives:
- Identify three-dimensional figures according to faces, edges, and vertices
- Sketch three-dimensional figures on graph paper

Lesson 8: Three Views of an Object

Objectives:
- Create two-dimensional sketches of the top, front, and side views of three-dimensional objects

Lesson 9: Cross-Sections

Objectives:
- Recognize and describe cross-sections of three-dimensional objects

Lesson 10: Drawing Nets

Objectives:
- Sketch nets of three-dimensional figures
- Recognize nets of three-dimensional figures

Lesson 11: Surface Area of Prisms and Cylinders

Objectives:
- Apply knowledge of nets to calculate surface area of prisms and cylinders

Lesson 12: Volume of Prisms and Cylinders

Objectives:
- Apply appropriate formulas to calculate the volume of prisms and cylinders

Lesson 13: Efficiency Expert Portfolio

Objectives:
- Apply knowledge of dimensions, area, and volume

Lesson 14: Measurement Review (two-day lesson)

Objectives:
- Organize your time and study materials
- Review your notes, key words, steps, and other important information that may be covered on the exam
Lesson 15: Measurement Unit Test

Unit 3: Patterns and Rules

This unit will review patterns and lay the foundation for your future study with functions. By the end of this unit, you will be able to create and interpret graphs and calculate interest on an amount of money.

Objectives:
- Identify and continue patterns and graphs
- Classify number sequences
- Create and interpret graphs
- Calculate interest

Lesson 1: Number Sequences

Objectives:
- Recognize patterns in arithmetic and geometric sequences and write rules to describe them
- Analyze patterns to find missing terms in sequences

Lesson 2: Patterns and Tables

Objectives:
- Create tables to represent patterns
- Interpret patterns in tables to find missing terms

Lesson 3: Function Rules

Objectives:
- Generate rules for functions
- Apply function rules to find missing terms

Lesson 4: Using Tables, Rules, and Graphs

Objectives:
- Create tables, function rules, and graphs and apply them to solve real-world problems

Lesson 5: Interpreting Graphs

Objectives:
- Create graphs to analyze real-world situations

Lesson 6: Simple Interest

Objectives:
- Apply the appropriate formula to compute simple interest

Lesson 7: Compound Interest

Objectives:
- Apply appropriate formula to compute compound interest

Lesson 8: Transforming Formulas

Objectives:
- Evaluate formulas to find solutions to problems

Lesson 9: Patterns and Rules Review (two-day lesson)

Objectives:
- Organize your time and study materials
- Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 10: Patterns and Rules Unit Test

Unit 4: Graphing in the Coordinate Plane
The functions that you learned about previously can be graphed on a coordinate plane. In this unit, you will learn to graph points and lines. You will also find lines of symmetry and graph reflections, translations, and rotations.

Objectives:
- Graph points, lines, translations, reflections, and rotations
- Find the slope of a line

Lesson 1: Graphing Points in Four Quadrants

Objectives:
- Identify points on all four quadrants of a coordinate plane
- Graph points on all four quadrants of a coordinate plane

Lesson 2: Graphing Linear Equations

Objectives:
- Determine solutions and graph to test solutions of linear equations.

Lesson 3: Finding the Slope of a Line

Objectives:
- Determine the slope of a line
- Recognize characteristics of slope
- Apply slope to problem solving

Lesson 4: Graphs and Proportional Relationships

Objectives:
- Analyze graphs and tables to determine whether or not two quantities have a proportional relationship

Lesson 5: Constant of Proportionality

Objectives:
- Identify the constant of proportionality (unit rate) in tables, graphs, and equations

Lesson 6: Graphing Nonlinear Relationships (two-day lesson)

Objectives:
- Graph nonlinear equations and absolute value equations

Lesson 7: Translations

Objectives:
- Graph translations on a coordinate plane
- Generate rules to describe translations

Lesson 8: Line Symmetry and Reflections

Objectives:
- Recognize lines of symmetry and apply them to graph reflections

Lesson 9: Exploring Tessellations

Objectives:
- Create a tessellation of a figure

Lesson 10: Rotational Symmetry and Rotations (two-day lesson)

Objectives:
- Rotational Symmetry and Rotations
- Determine the angle of rotation and graph a rotation of a figure
Lesson 11: Graphing in the Coordinate Plane Review (two-day lesson)

Objectives:
- Organize your time and study materials
- Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 12: Graphing in the Coordinate Plane Unit Test

Unit 5: Displaying and Analyzing Data

In this unit, you will be working with sets of data and displaying them in a way that they can be quickly and easily understood. By the end, you’ll be able to distinguish a valid survey from an invalid one, and identify graphical representations that are misleading.

Objectives:
- Identify, interpret, and create different displays of sets of data
- Identify misleading graphs and statistics

Lesson 1: Reporting Frequency

Objectives:
- Generate frequency tables, histograms, and line plots to represent data
- Interpret frequency tables, histograms, and line plots

Lesson 2: Stem-and-Leaf Plots

Objectives:
- Generate stem-and-leaf plots to represent data
- Interpret data represented on stem-and-leaf plots

Lesson 3: Choosing the Best Data Display (two-day lesson)

Objectives:
- Determine the most accurate and appropriate way to display data

Lesson 4: Data Variability

Objectives:
- Interpret data displays according to the visual overlap of two data sets
- Compare two data sets according to the mean, median, and variability

Lesson 5: Random Samples and Surveys

Objectives:
- Compose a survey question
- Identify biased questions
- Recognize a random sample of a population

Lesson 6: Estimating Population Size (two-day lesson)

Objectives:
- Apply proportions to estimate population sizes
- Draw inferences about a population
- Generate simulated random samples

Lesson 7: Using Data to Persuade

Objectives:
- Identify misleading graphs and statistics

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Lesson 8: Exploring Scatter Plots (two-day lesson)

Objectives:
- Create scatter plots
- Interpret scatter plots
Lesson 9: Displaying and Analyzing Data Unit Review

Objectives:
- Organize your time and study materials
- Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 10: Displaying and Analyzing Data Unit Test

Unit 6: Using Probability

The probability of an event is the likelihood that the event will occur. In this unit, you will be calculating the probabilities of given events including events that are dependent on another event occurring first. You will also determine how many possible outcomes there are for a given set of circumstances.

Objectives:
- Find the probability of dependent and independent events
- Represent all possible outcomes of an experiment in a sample space
- Find permutations and combinations

Lesson 1: Probability (two-day lesson)

Objectives:
- Determine the probability of an event
- Determine the complement of an event
- Find the probability of the complement of an event

Lesson 2: Experimental Probability

Objectives:
- Find experimental probability
- Use simulations

Lesson 3: Sample Spaces

Objectives:
- Make and use sample spaces
- Use the counting principle

Lesson 4: Compound Events

Objectives:
- Find the probability of independent and dependent events

Lesson 5: Simulating Compound Events

Objectives:
- Design and use a simulation to generate frequencies for compound events

Lesson 6: Permutations

Objectives:
- Determine permutations using the counting principal or factorials

Lesson 7: Combinations

Objectives:
- Determine combinations of objects
Lesson 8: Unit Review (two-day lesson)

Objectives:
- Organize your time and study materials
- Review your notes, key words, steps, and other important information that may be covered on the unit test

Lesson 9: Using Probability Unit Test
ALGEBRA READINESS A
Algebra Readiness (Pre-Algebra) A

This is the first of two courses that comprise Algebra Readiness. In this course, the student will be introduced to basic algebraic principles. The student will review properties of expressions and integers. The student will solve one-step equations and inequalities with positive and negative integers, decimals, fractions, and exponents. Then the student will explore problems involving operations of fractions and will apply his knowledge of algebra to solve real-world ratio, proportion, and percent problems. Finally, the student will examine and evaluate two-step and multi-step equations and inequalities.

Unit 1: Focus on Success in Algebra Readiness

In this unit, you will focus on ways to think about and approach mathematics. You will learn how to set personal goals, establish study strategies that reduce anxiety, and review ways to be an active learner. In addition, this unit introduces the various resources that are available to you in your algebra readiness course.

Objectives:
• Assess personal readiness for studying and learning
• Recognize the importance of personal ownership of learning
• Reflect on personal strengths and weaknesses in order to improve mathematical performance
• Use resources to set goals

Lesson 1: Preparing for Success

Objectives:
• Describe the characteristics of quality goals
• Set goals for success in mathematics
• Reflect on strengths, weaknesses, and how to apply them
• Recognize the importance of personal effort to learning

Lesson 2: Resources for Success

Objectives:
• Identify the various resources that you can use in the course
• Modify goals to include using resources effectively

Unit 2: Integers and Algebraic Expressions

In this unit, you will review the foundational concepts necessary for algebra and mathematical reasoning including integer operations and use of variables to represent unknown quantities. Emphasis will be placed upon achieving mastery of integer operations and the skill of rewriting a subtraction expression as addition of an opposite integer.

Objectives:
• Apply the order of operations and number properties
• Use appropriate operations to solve problems involving integers
• Rewrite equations replacing subtraction with addition involving an integer

Lesson 1: Order of Operations (two-day lesson)

Objectives:
• Apply the order of operations to correctly solve an equation
• Evaluate variable expressions when the value of the variable is given
• Translate phrases into mathematical expressions

Lesson 2: Integers and Absolute Value

Objectives:
• Identify the absolute value of a given integer
• Identify the opposite of a given integer
• Evaluate expressions with absolute value
• Order integers

Lesson 3: Adding and Subtracting Integers (two-day lesson)

Objectives:
• Apply the rules of addition and subtraction of integers
• Change subtraction problems to involve addition of an opposite

**Lesson 4: Multiplying and Dividing Integers**

Objectives:
• Apply the rules of multiplication and division of integers

**Lesson 5: Properties of Numbers**

Objectives:
• Identify the additive and multiplicative inverse of a number
• Use the Distributive Property to make mental math easier

**Lesson 6: Solving Equations by Adding and Subtracting**

Objectives:
• Write and solve equations using addition and subtraction

**Lesson 7: Solve Equations by Multiplying and Dividing**

Objectives:
• Write and solve equations using multiplication and division

**Lesson 8: Integers and Algebra Review (two-day lesson)**

Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

**Lesson 9: Integers and Algebraic Expressions Unit Test**

**Unit 3: Rational Numbers**

This unit will focus on the use of fractions and exponents. In this unit, you will order rational numbers, convert between decimals and fractions, and perform operations using fractions and mixed numbers. In addition, you will learn to use a formula and to evaluate a power. At the conclusion of this unit, you will complete a portfolio project using fractions to adjust portions for more or fewer people in a healthy recipe of your choosing.

Objectives:
• Perform operations using positive and negative rational numbers
• Predict the size and sign of a product relative to its multiplicand and multiplier
• Identify and use powers, including numbers in scientific notation

**Lesson 1: Rational and Irrational Numbers**

Objectives:
• Differentiate between rational and irrational numbers

**Lesson 2: Fractions and Decimals**

Objectives:
• Convert between fractions and decimals

**Lesson 3: Adding and Subtracting Fractions (two-day lesson)**

Objectives:
• Add and subtract fractions
• Add and subtract mixed numbers

**Lesson 4: Multiplying and Dividing Fractions (two-day lesson)**

Objectives:
• Multiply and divide fractions
• Multiply and divide mixed numbers
• Scale up a favorite recipe 2 1/2 times
• Scale down a different favorite recipe by 1/4

**Lesson 5: Exponent Basics**
Objectives:
• Use powers and exponents in expressions
• Evaluate expressions using exponents

Lesson 6: Properties of Exponents
Objectives:
• Multiply powers
• Divide powers
• Apply negative and zero exponents

Lesson 7: Scientific Notation Basics (two-day lesson)
Objectives:
• Convert between scientific notation and standard form
• Convert between standard form and scientific notation

Lesson 8: Scientific Notation Comparison
Objectives:
• Compare relative size of numbers in scientific notation

Lesson 9: Operations and Applications of Scientific Notation
Objectives:
• Perform operations expressed in scientific notation
• Apply scientific notation to real world problems

Lesson 10: Unit Review (two-day lesson)
Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 11: Rational Numbers Unit Test

Unit 4: Real Numbers and the Coordinate Plane
Previously in your studies, you worked with a set of numbers called the rationals. In this unit, you will begin to work with another set of numbers called the irrationals. By the end of this unit, you will be able to estimate the value of an irrational number by comparing it to one or two rational numbers. You will also use irrational numbers to approximate the length of lines by applying the Pythagorean Theorem. Finally, you will use a coordinate plane to create symmetrical figures.

Objectives:
• Identify the differences between rational and irrational numbers and use rational numbers to estimate and order irrational numbers
• Estimate the value of a square root
• Use the Pythagorean Theorem to find the lengths of sides of a right triangle

Lesson 1: Squares and Square Roots
Objectives:
• Find the square and square roots of numbers

Lesson 2: Real Numbers (two-day lesson)
Objectives:
• Identify rational and irrational numbers

Lesson 3: Estimating Irrationals
Objectives:
• Estimate the value of an irrational number by comparing it to rational numbers

Lesson 4: Roots as Solutions to Equations, Cube Roots
Objectives:
• Evaluate perfect squares and cubes
• Use roots to represent solutions to equations

Lesson 5: Pythagorean Theorem (two-day lesson)
Objectives:
• Solve problems using the Pythagorean Theorem

Lesson 6: Converse of Pythagorean Theorem (two-day lesson)
Objectives:
• Apply the converse of the Pythagorean Theorem
• Identify a right triangle
• Prove the Pythagorean Theorem

Lesson 7: Coordinate Plane
Objectives:
• Graph points on the coordinate plane
• Use the Pythagorean Theorem to find the distance between two graphed points
• Apply the Distance Formula

Lesson 8: Movement in the Coordinate Plane (two-day lesson)
Objectives:
• Graph and describe translations in the coordinate plane
• Graph reflections in the coordinate plane and identify lines of symmetry

Lesson 9: Rotations in the Coordinate Plane
Objectives:
• Graph rotations and identify rotational symmetry

Lesson 10: Real Numbers and the Coordinate Plane Unit Review (two-day lesson)
Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 11: Real Numbers and the Coordinate Plane Unit Test

Unit 5: Applications of Proportions
This unit will focus on ratios and proportions. You will use ratios to compare two things, and then use those ratios to solve proportions. There will be a portfolio project for this unit, using a real-world scenario. You will take detailed measurements of your bedroom and create a to-scale map using appropriate measurements.

Objectives:
• Identify and simplify ratios to solve proportions
• Perform unit conversions and dilations
• Use proportions in real-world applications, including scale models and indirect measurements

Lesson 1: Ratios and Rates
Objectives:
• Write ratios and unit rates
• Use rates to solve problems
Lesson 2: Proportions

Objectives:
- Identify and solve proportions

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Lesson 3: Similar Figures

Objectives:
- Identify similar figures
- Use proportions to find missing measurements in similar figures

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Lesson 4: Ratios of Similar Figures

Objectives:
- Compare the lengths, perimeters, and areas of similar rectangles
- Calculate the perimeter and area of a similar figure

Lesson 5: Dilations

Objectives:
- Graph dilations on the coordinate plane
- Determine the scale factor of a dilation

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Lesson 6: Scale Drawings (two-day lesson)

Objectives:
- Use proportions to solve problems involving scale

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Lesson 7: Unit Review (two-day lesson)

Objectives:
- Review information from previous lessons to prepare for the test
- Submit the scale drawing of your room

Lesson 8: Applications of Proportions Unit Test

Unit 6: Applications of Percents

In this unit, you will learn that a percent is a ratio comparing a number to one hundred. You will then use percents to find and compare amounts of increase or decrease and to calculate new prices based on markup, discount, and sales tax. The portfolio project at the end of this unit will require you to find products online and calculate a new price based upon a percent discount and state sales tax.

Objectives:
- Determine a quantity as a percent of a whole, a total based upon the percent amount of a portion, and the percent of a portion based upon its total
- Use percents to find an amount of increase or decrease

Lesson 1: Fractions, Decimals, and Percents

Objectives:
- Convert between fractions, decimals, and percents
- Order rational numbers

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Lesson 2: Estimating with Percents

Objectives:
- Estimate percents using decimals and fractions
Lesson 3: Percents and Proportions (two-day lesson)

Objectives:
• Use proportions to find part of a whole, a whole amount, or a percent

Lesson 4: Percent Equations (two-day lesson)

Objectives:
• Use equations to solve problems involving percents

Lesson 5: Percent of Change (two-day lesson)

Objectives:
• Find percent of change
• Solve problems involving percent of increase and percent of decrease

Lesson 6: Markup, Discount, and Sales Tax (two-day lesson)

Objectives:
• Use percent of change to find markup, discount, and selling price

Lesson 7: Simple Interest (two-day lesson)

Objectives:
• Find simple interest and account balances

Lesson 8: Unit Review (two-day lesson)

Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 9: Applications of Percent Unit Test

Unit 7: Equations and Inequalities
In this unit, you will use algebraic skills to solve for an unknown quantity in an equation or inequality. You will start with two-step equations and work your way through multiple-step equations to solving equations with variables on both sides of the equal sign.

Objectives:
• Combine like terms in a mathematic expression
• Balance equations and inequalities using inverse operations
• Solve equations and inequalities for a variable

Lesson 1: Solving Two-Step Equations

Objectives:
• Solve two-step equations
• Use two-step equations to solve problems

Lesson 2: Simplifying Algebraic Expressions

Objectives:
• Simplify algebraic expressions by combining like terms
Lesson 3: Solving Multi-Step Equations (two-day lesson)

Objectives:
• Write and solve multi-step equations

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Lesson 4: Variables on Both Sides (two-day lesson)

Objectives:
• Write and solve equations with variables on both sides

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Lesson 5: Transforming Equations

Objectives:
• Transform equations into simpler forms to determine the number of solutions

Lesson 6: Graphing and Solving Inequalities

Objectives:
• Write and solve inequalities

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Lesson 7: Solving Inequalities by Multiplying or Dividing (two-day lesson)

Objectives:
• Solve inequalities by multiplication and division

Lesson 8: Unit Review (two-day lesson)

Objectives:
• Review materials within this unit

Lesson 9: Equations and Inequalities Unit Test
ALGEBRA READINESS B
Algebra Readiness (Pre-Algebra) B

This is the second of two courses that comprise Algebra Readiness. In this course, the student will explore basic algebraic principles. The student will also examine and evaluate two-step and multi-step equations and inequalities and then explore and use graphs to solve linear relations and functions. Next, the student will be introduced to basic concepts of geometry including angle relationships, parallel lines, polygons, circles, and transformations. The student will continue to apply his knowledge of geometry and algebra to solve area and volume problems. Then the student will explore nonlinear functions and polynomials. Finally, the student will examine properties of right triangles, data analysis, and probability.

Unit 1: Geometry

In this unit, you will learn to classify polygons based upon their sides and angles, and perform computations using related angles and parallel lines. In addition, you will find the area of common figures and the circumference of circles. Finally, you will use basic geometry tools to construct angles and parallel lines.

Objectives:
- Classify a polygon based upon its sides and angles
- Identify and use congruent figures
- Calculate the area of figures and circumference of circles

Lesson 1: Pairs of Angles

Objectives:
- Explore and classify angles
- Determine angle measures based on angle relationships

Lesson 2: Parallel Lines and Angles

Objectives:
- Identify parallel lines
- Identify the types of angles formed by a transversal
- Find the measures of angles formed by parallel lines

Lesson 3: Congruent Polygons (two-day lesson)

Objectives:
- Determine if figures are congruent or similar to one another
- Describe a sequence of transformations for congruent and similar figures

Lesson 4: Classifying Polygons

Objectives:
- Classify certain polygons

Lesson 5: Polygons and Angles

Objectives:
- Classify polygons
- Find the interior angle measure of polygons

Lesson 6: Area of Polygons (two-day lesson)

Objectives:
- Find the area of parallelograms, triangles, and trapezoids

Lesson 7: Area and Circumference of Circles

Objectives:
- Calculate the circumference and area of circles
- Calculate the area of an irregular figure

Lesson 8: Geometric Constructions (two-day lesson)
Objectives:
- Perform geometric constructions

Lesson 9: Geometry Unit Review (two-day lesson)

Lesson 10: Geometry Unit Test

Unit 2: Measurement
This unit focuses on the skills of calculating surface area and volume. By the end of the unit, you will be able to calculate the exact surface area and volumes of specific 3-D figures that are based upon rectangles and circles, including spheres. You will display your knowledge at the end in a portfolio project by finding, measuring, and calculating the surface area and volume of two items you probably already have at home.

Objectives:
- Identify solids and their parts
- Calculate the surface area and volume of cylinders, prisms, cones, pyramids, and spheres
- Determine how a change in one dimension affects changes in surface area and volume

Lesson 1: Polyhedrons, 3-D Figures, and Solids

Objectives:
- Identify solids, parts of solids, and skewed line segments

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Lesson 2: 3-D Views

Objectives:
- Draw 3-D figures, base plans, and isometric views

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Lesson 3: 3-D Figures and Nets

Objectives:
- Identify nets of solids

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Lesson 4: Surface Area of Prisms and Cylinders (two-day lesson)

Objectives:
- Find surface area of prisms and cylinders using nets and formulas

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Lesson 5: Surface Area of Pyramids and Cones

Objectives:
- Find surface area of pyramids and cones using nets and formulas

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Lesson 6: Using Pythagorean Theorem with 3-D Figures

Objectives:
- Apply the Pythagorean Theorem in three-dimensional figures

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Lesson 7: Volumes of Prisms and Cylinders

Objectives:
- Calculate the volume of prisms and cylinders

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Lesson 8: Volumes of Pyramids and Cones

Objectives:
• Calculate the volume of pyramids and cones

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Lesson 9: Spheres

Objectives:
• Find the surface area and volume of a sphere

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Lesson 10: Similar Solids

Objectives:
• Apply proportional reasoning to find the missing measurement in similar solids

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Lesson 11: Surface Area and Volume in the Real World (two-day lesson)

Objectives:
• Calculate the surface area and volume (in appropriate units) of three-dimensional objects found in the home, such as a can of food, box of tissues, shoebox, etc.

Lesson 12: Measurement Unit Review (two-day lesson)

Objectives:
• Review previously studied material

Lesson 13: Measurement Unit Test

Unit 3: Using Graphs to Analyze Data

In this unit of the course, you will examine, analyze, and construct scatter plots and tables. With these skills, you will be able to roughly predict the strength and direction of a pattern of association between two things. You will also find measures of central tendency and determine which graph and measure of central tendency best represents a data set.

Objectives:
• Calculate the mean, median, and mode of a data set and explain the best use of each
• Determine the best type of graph to display a data set
• Identify patterns of association—indicating strength and direction—of two factors and make predictions based upon a scatter plot

Lesson 1: Measures of Center

Objectives:
• Compute mean, median, mode, range and select appropriate measure of tendency

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Lesson 2: Frequency

Objectives:
• Utilize line plots, frequency tables, and histograms to display data

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Lesson 3: Venn Diagrams

Objectives:
• Examine relationships between data with Venn diagrams

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Lesson 4: Stem-and-Leaf Plots (two-day lesson)

Objectives:
- Represent and interpret data using stem-and-leaf plots

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Lesson 5: Box-and-Whisker Plots

Objectives:
- Represent and interpret data using box-and-whisker plots

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Lesson 6: Scatter Plots

Objectives:
- Create scatter plots and analyze trends to make predictions

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Lesson 7: Bivariate Data

Objectives:
- Analyze bivariate data
- Describe patterns of association in bivariate data

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Lesson 8: Modeling Data with Lines

Objectives:
- Examine data to determine accuracy of models

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Lesson 9: Circle Graphs

Objectives:
- Interpret data using circle graphs
- Present data by creating circle graphs

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Lesson 10: Choosing the Right Graph

Objectives:
- Choose the best graph to represent various data

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Lesson 11: Relative Frequency (two-day lesson)

Objectives:
- Create and analyze data using a two-way table

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Lesson 12: Using Graphs to Analyze Data Unit Review (two-day lesson)

Objectives:
- Review for unit test

Lesson 13: Using Graphs to Analyze Data Unit Test

Unit 4: Probability

In this unit of the course, you will find probabilities and odds of events.
Objectives:
- Calculate odds and probabilities of dependent and independent events, and make predictions using those calculations
- Calculate permutations and combinations of sets of objects

Lesson 1: Theoretical and Experimental Probability (two-day lesson)

Objectives:
- Find theoretical probabilities, experimental probabilities, and odds

Lesson 2: Independent and Dependent Events

Objectives:
- Find the probabilities of independent and dependent events

Lesson 3: Making Predictions

Objectives:
- Make predictions based on theoretical and experimental probabilities

Lesson 4: Permutations

Objectives:
- Find the number of permutations of a set of objects

Lesson 5: Combinations (two-day lesson)

Objectives:
- Find the number of combinations of a set of objects using lists and combination notation

Lesson 6: Unit Review (two-day lesson)

Objectives:
- Review the unit

Lesson 7: Probability Unit Test

Unit 5: Functions

This unit focuses on the concept of functions. By the end, you will be able to identify a function as an equation having one output for every input, and you will be able to graph linear and non-linear functions on a coordinate plane.

Objectives:
- Describe a sequence
- Identify and graph functions and determine slope and y-intercept
- Determine the solution of two functions by graphing

Lesson 1: Sequences

Objectives:
- Write rules for sequences and use the rules to find terms

Lesson 2: Relating Graphs and Events

Objectives:
- Interpret and sketch graphs that represent real-world situations
Lesson 3: Functions

Objectives:
- Identify functions
- Represent functions with equations, tables, and function notation

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Lesson 4: Understanding Slope

Objectives:
- Calculate slope of a line from different representations

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Lesson 5: Slope and Similar Triangles (two-day lesson)

Objectives:
- Demonstrate that the slope between any two points on a line is the same
- Derive the equation for a line in slope-intercept form: \( y = mx + b \)

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Lesson 6: Graphing Linear Functions

Objectives:
- Use tables and equations to graph linear functions

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Lesson 7: Graphing Proportional Relationships (two-day lesson)

Objectives:
- Graph proportional relationships
- Explore the relationship between the slope of a line on a graph and unit rate

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Lesson 8: Writing Rules for Linear Functions

Objectives:
- Write function rules from words, tables, and graphs

Lesson 9: Solving Systems of Equations

Objectives:
- Solve systems of equations by graphing and by substitution

Lesson 10: Nonlinear Functions

Objectives:
- Graph and write quadratic functions and other nonlinear functions

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Lesson 11: Comparing Functions

Objectives:
- Compare functions represented in various ways

Lesson 12: Functions Unit Review (two-day lesson)

Objectives:
- Review for unit test

Lesson 13: Functions Unit Test

Unit 6: Polynomials and Properties of Exponents
In this final unit, you will be working with expressions called polynomials. By the end, you will be able to add, subtract, and multiply these expressions. You will also simplify powers and use negative and zero exponents.

Objectives:
- Add, subtract, and multiply polynomials
- Multiply and divide powers with the same base, including numbers in scientific notation

**Lesson 1: Polynomials**

Objectives:
- Write algebraic expressions and simplify polynomials

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**Lesson 2: Adding and Subtracting Polynomials**

Objectives:
- Add and subtract polynomials

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**Lesson 3: Exponents and Multiplication (two-day lesson)**

Objectives:
- Multiply powers with the same base
- Multiply numbers in scientific notation

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**Lesson 4: Multiplying Polynomials**

Objectives:
- Multiply monomials and binomials

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**Lesson 5: Exponents and Division (two-day lesson)**

Objectives:
- Divide powers with the same base
- Simplify expressions with negative exponents

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**Lesson 6: Polynomials and Properties of Exponents Review (two-day lesson)**

Objectives:
- Review problems and terms

**Lesson 7: Polynomials and Properties of Exponents Unit Test**
ESSENTIAL
ALGEBRA READINESS A
Essential Algebra Readiness (Pre-Algebra) A

This is the first of two courses that comprise Essential Algebra Readiness (Pre-Algebra). In this course, the student will be introduced to basic algebraic principles. The student will review properties of expressions and integers. The student will solve one-step equations and inequalities with positive and negative integers, decimals, fractions, and exponents. Then the student will explore problems involving operations of fractions and will apply his knowledge of algebra to solve real-world ratio, proportion, and percent problems. Finally, the student will be able to examine and evaluate two-step and multi-step equations and inequalities.

Unit 1: Focus on Success in Algebra Readiness

In this unit, you will focus on ways to think about and approach mathematics. You will learn how to set personal goals, establish study strategies that reduce anxiety, and review ways to be an active learner. In addition, this unit introduces the various resources that are available to you in your algebra readiness course.

Objectives:
- Assess personal readiness for studying and learning
- Recognize the importance of personal ownership of learning
- Reflect on personal strengths and weaknesses in order to improve mathematical performance
- Use resources to set goals

Lesson 1: Preparing for Success

Objectives:
- Describe the characteristics of quality goals
- Set goals for success in mathematics
- Reflect on strengths, weaknesses, and how to apply them
- Recognize the importance of personal effort to learning

Lesson 2: Resources for Success

Objectives:
- Identify the various resources that you can use in the course
- Modify goals to include using resources effectively

Unit 2: Integers and Algebraic Expressions

In this unit, you will review the foundational concepts necessary for algebra and mathematical reasoning including integer operations and use of variables to represent unknown quantities. Emphasis will be placed upon achieving mastery of integer operations and the skill of rewriting a subtraction expression as addition of an opposite integer.

Objectives:
- Apply the order of operations and number properties
- Use appropriate operations to solve problems involving integers
- Rewrite equations replacing subtraction with addition involving an integer

Lesson 1: Order of Operations (two-day lesson)

Objectives:
- Apply the order of operations to correctly solve an equation
- Evaluate variable expressions when the value of the variable is given
- Translate phrases into mathematical expressions

Lesson 2: Integers and Absolute Value

Objectives:
- Identify the absolute value of a given integer
- Identify the opposite of a given integer
- Evaluate expressions with absolute value
- Order integers

Lesson 3: Adding and Subtracting Integers (two-day lesson)
Objectives:
• Apply the rules of addition and subtraction of integers
• Change subtraction problems to involve addition of an opposite

Lesson 4: Multiply and Divide Integers

Objectives:
• Apply the rules of multiplication and division of integers

Lesson 5: Properties of Numbers

Objectives:
• Identify the additive and multiplicative inverse of a number
• Use the Distributive Property to make mental math easier

Lesson 6: Solving Equations by Adding and Subtracting (two-day lesson)

Objectives:
• Write and solve equations using addition and subtraction

Lesson 7: Solve Equations by Multiplying and Dividing (two-day lesson)

Objectives:
• Write and solve equations using multiplication and division

Lesson 8: Integers and Algebra Review (two-day lesson)

Objectives:
• Organize your time and study materials
• Review your notes, key words, steps, and other important information that may be covered on the exam

Lesson 9: Integers and Algebra Unit Test

Unit 3: Rational Numbers

This unit will focus on the use of fractions and exponents. In this unit, you will order rational numbers, convert between decimals and fractions, and perform operations using fractions and mixed numbers. In addition, you will learn to use a formula and to evaluate a power. At the conclusion of this unit, you will complete a portfolio project using fractions to adjust portions for more or fewer people in a healthy recipe of your choosing.

Objectives:
• Perform operations using positive and negative rational numbers
• Predict the size and sign of a product relative to its multiplicand and multiplier
• Identify and use powers, including numbers in scientific notation

Lesson 1: Rational and Irrational Numbers

Objectives:
• Differentiate between rational and irrational numbers

Lesson 2: Fractions and Decimals

Objectives:
• Convert between fractions and decimals

Lesson 3: Adding and Subtracting Fractions (two-day lesson)

Objectives:
• Add and subtract fractions
• Add and subtract mixed numbers

Lesson 4: Multiplying and Dividing Fractions (two-day lesson)

Objectives:
• Multiply and divide fractions
• Multiply and divide mixed numbers
Lesson 5: Exponent Basics
Objectives:
• Use powers and exponents in expressions
• Evaluate expressions using exponents

Lesson 6: Properties of Exponents (two-day lesson)
Objectives:
• Multiply powers
• Divide powers
• Apply negative and zero exponents

Lesson 7: Scientific Notation Basics (two-day lesson)
Objectives:
• Convert between scientific notation and standard form
• Convert between standard form and scientific notation

Lesson 8: Scientific Notation Comparison
Objectives:
• Compare relative size of numbers in scientific notation

Lesson 9: Operations and Applications of Scientific Notation
Objectives:
• Perform operations expressed in scientific notation
• Apply scientific notation to real world problems

Lesson 10: Rational Numbers Unit Review (two-day lesson)
Objectives:
• Organize your time and study materials
• Review your notes, Key Words, steps, and other important information that may be covered on the exam

Lesson 11: Rational Numbers Unit Test

Unit 4: Real Numbers and the Coordinate Plane
Previously in your studies, you worked with a set of numbers called the rationals. In this unit, you will begin to work with another set of numbers called the irrationals. By the end of this unit, you will be able to estimate the value of an irrational number by comparing it to one or two rational numbers. You will also use irrational numbers to approximate the length of lines by applying the Pythagorean Theorem. Finally, you will use a coordinate plane to create symmetrical figures.

Objectives:
• Identify the differences between rational and irrational numbers and use rational numbers to estimate and order irrational numbers
• Estimate the value of a square root
• Use the Pythagorean Theorem to find the lengths of sides of a right triangle

Lesson 1: Squares and Square Roots
Objectives:
• Find the square and square roots of numbers

Lesson 2: Real Numbers
Objectives:
• Identify rational and irrational numbers

Lesson 3: Estimating Irrationals
Objectives:
• Estimate the value of an irrational number by comparing it to rational numbers
Lesson 4: Roots as Solutions To Equations, Cube Roots

Objectives:
- Evaluate perfect squares and cubes
- Use roots to represent solutions to equations

Lesson 5: Pythagorean Theorem

Objectives:
- Solve problems using the Pythagorean Theorem

Lesson 6: Converse of Pythagorean Theorem

Objectives:
- Apply the converse of the Pythagorean Theorem
- Identify a right triangle
- Prove the Pythagorean Theorem

Lesson 7: Coordinate Plane

Objectives:
- Graph points on the coordinate plane
- Use the Pythagorean Theorem to find the distance between two graphed points
- Apply the Distance Formula

Lesson 8: Movement in the Coordinate Plane (two-day lesson)

Objectives:
- Graph and describe translations in the coordinate plane
- Graph reflections in the coordinate plane and identify lines of symmetry

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Lesson 9: Rotations in the Coordinate Plane (two-day lesson)

Objectives:
- Graph rotations and identify rotational symmetry

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Lesson 10: Real Numbers and the Coordinate Plane Unit Review (two-day lesson)

Objectives:
- Organize your time and study materials
- Review your notes, Key Words, steps, and other important information that may be covered on the exam

Lesson 11: Real Numbers and the Coordinate Plane Unit Test

Unit 5: Applications of Proportions

This unit will focus on ratios and proportions. You will use ratios to compare two things, and then use those ratios to solve proportions. There will be a portfolio project for this unit, using a real-world scenario. You will take detailed measurements of your bedroom and create a to-scale map using appropriate measurements.

Objectives:
- Identify and simplify ratios to solve proportions
- Perform unit conversions and dilations
- Use proportions in real-world applications, including scale models and indirect measurements

Lesson 1: Ratios and Rates

Objectives:
- Write ratios and unit rates
- Use rates to solve problems
Lesson 2: Proportions

Objectives:
- Identify and solve proportions

Lesson 3: Similar Figures

Objectives:
- Identify similar figures
- Use proportions to find missing measurements in similar figures

Lesson 4: Ratios of Similar Figures (two-day lesson)

Objectives:
- Compare the lengths, perimeters, and areas of similar rectangles
- Calculate the perimeter and area of a similar figure

Lesson 5: Dilations

Objectives:
- Graph dilations on the coordinate plane
- Determine the scale factor of a dilation

Lesson 6: Scale Drawings (two-day lesson)

Objectives:
- Use proportions to solve problems involving scale

Lesson 7: Applications of Proportions Unit Review

Objectives:
- Review information from previous lessons to prepare for the test
- Submit the scale drawing of your room

Lesson 8: Applications of Proportions Unit Test

Unit 6: Applications of Percents

In this unit, you will learn that a percent is a ratio comparing a number to one hundred. You will then use percents to find and compare amounts of increase or decrease and to calculate new prices based on markup, discount, and sales tax. The portfolio project at the end of this unit will require you to find products online and calculate a new price based upon a percent discount and state sales tax.

Objectives:
- Determine a quantity as a percent of a whole, a total based upon the percent amount of a portion, and the percent of a portion based upon its total
- Use percents to find an amount of increase or decrease

Lesson 1: Fractions, Decimals, and Percents

Objectives:
- Convert between fractions, decimals, and percents
- Order rational numbers

Lesson 2: Estimating with Percents
Lesson 3: Percent Proportions (two-day lesson)

Objectives:
- Use proportions to find the part of a whole, a whole amount, or a percent

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Lesson 4: Percent Equations (two-day lesson)

Objectives:
- Use equations to solve problems involving percents

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Lesson 5: Percent of Change

Objectives:
- Find percent of change
- Solve problems involving percent of increase and percent of decrease

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Lesson 6: Markup, Discount, and Sales Tax (two-day lesson)

Objectives:
- Use percent of change to find markup, discount, and selling price

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Lesson 7: Simple and Compound Interest

Objectives:
- Find simple interest and account balances

Lesson 8: Applications of Percent Unit Review (two-day lesson)

Objectives:
- Organize your time and study materials
- Review your notes, Key Words, steps, and other important information that may be covered on the exam

Lesson 9: Applications of Percent Unit Test

Unit 7: Equations and Inequalities

In this unit, you will use algebraic skills to solve for an unknown quantity in an equation or inequality. You will start with two-step equations and work your way through multiple-step equations to solving equations with variables on both sides of the equal sign.

Objectives:
- Combine like terms in a mathematic expression
- Balance equations and inequalities using inverse operations
- Solve equations and inequalities for a variable

Lesson 1: Solving Two-Step Equations

Objectives:
- Solve two-step equations
- Use two-step equations to solve problems

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Lesson 2: Simplifying Algebraic Expressions
Objectives:
- Simplify algebraic expressions by combining like terms

**Lesson 3: Solving Multi-Step Equations (two-day lesson)**

Objectives:
- Write and solve multi-step equations

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**Lesson 4: Variables on Both Sides (two-day lesson)**

Objectives:
- Write and solve equations with variables on both sides

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**Lesson 5: Transforming Equations (two-day lesson)**

Objectives:
- Transform equations into simpler forms to determine the number of solutions

**Lesson 6: Graphing and Solving Inequalities**

Objectives:
- Write and solve inequalities

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**Lesson 7: Solving Inequalities by Multiplying or Dividing (two-day lesson)**

Objectives:
- Solve inequalities by multiplication and division

**Lesson 8: Equations and Inequalities Unit Review (two-day lesson)**

Objectives:
- Review materials within this unit

**Lesson 9: Equations and Inequalities Unit Test**
ESSENTIAL
ALGEBRA READINESS B
Essential Algebra Readiness (Pre-Algebra) B

This is the second of two courses that comprise Essential Algebra Readiness (Pre-Algebra). In this course, the student will explore basic algebraic principles. The student will examine and evaluate two-step and multi-step equations and inequalities and then explore and use graphs to solve linear relations and functions. Next, the student will be introduced to basic concepts of geometry including angle relationships, parallel lines, polygons, circles, and transformations. The student will also apply his knowledge of geometry and algebra to solve area and volume problems. Then the student will explore nonlinear functions and polynomials. Finally, the student will examine properties of right triangles, data analysis, and probability.

Unit 1: Geometry

In this unit, you will learn to classify polygons based upon their sides and angles, and perform computations using related angles and parallel lines. In addition, you will find the area of common figures and the circumference of circles. Finally, you will use basic geometry tools to construct angles and parallel lines.

Objectives:
- Classify a polygon based upon its sides and angles
- Identify and use congruent figures
- Calculate the area of figures and circumference of circles

Lesson 1: Pairs of Angles

Objectives:
- Explore and classify angles
- Determine angle measures based on angle relationships

Lesson 2: Parallel Lines and Angles

Objectives:
- Identify parallel lines
- Identify the types of angles formed by a transversal
- Find the measures of angles formed by parallel lines

Lesson 3: Congruent Polygons (two-day lesson)

Objectives:
- Determine if figures are congruent or similar to one another
- Describe a sequence of transformations for congruent and similar figures

Lesson 4: Classifying Polygons

Objectives:
- Classify certain polygons

Lesson 5: Polygons and Angles

Objectives:
- Classify polygons
- Find the interior angle measure of polygons

Lesson 6: Area of Polygons

Objectives:
- Find the area of parallelograms, triangles, and trapezoids

Lesson 7: Area and Circumference of Circles

Objectives:
- Calculate the circumference and area of circles
- Calculate the area of an irregular figure

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Lesson 8: Geometric Constructions

Objectives:
• Perform geometric constructions

Lesson 9: Geometry Unit Review (two-day lesson)

Objectives:
• Prepare for the unit test

Lesson 10: Geometry Unit Test

Unit 2: Measurement

This unit focuses on the skills of calculating surface area and volume. By the end of the unit, you will be able to calculate the exact surface area and volumes of specific 3-D figures that are based upon rectangles and circles, including spheres. You will display your knowledge at the end in a portfolio project by finding, measuring, and calculating the surface area and volume of two items you probably already have at home.

Objectives:
• Identify solids and their parts
• Calculate the surface area and volume of cylinders, prisms, cones, pyramids, and spheres
• Determine how a change in one dimension affects changes in surface area and volume

Lesson 1: Polyhedrons, 3-D Figures, and Solids

Objectives:
• Identify solids, parts of solids, and skewed line segments

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Lesson 2: 3-D Views

Objectives:
• Draw 3-D figures, base plans, and isometric views

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Lesson 3: 3-D Figures and Nets

Objectives:
• Identify nets of solids

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Lesson 4: Surface Areas of Prisms and Cylinders (two-day lesson)

Objectives:
• Find surface area of prisms and cylinders using nets and formulas

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Lesson 5: Surface Areas of Pyramids and Cones (two-day lesson)

Objectives:
• Find surface area of pyramids and cones using nets and formulas

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Lesson 6: Using Pythagorean Theorem with 3-D Figures

Objectives:
• Apply the Pythagorean Theorem in three-dimensional figures

Lesson 7: Volumes of Prisms and Cylinders (two-day lesson)

Objectives:
Lesson 8: Volumes of Pyramids and Cones (two-day lesson)

Objectives:
- Calculate the volume of pyramids and cones

Lesson 9: Spheres

Objectives:
- Find the surface area and volume of a sphere

Lesson 10: Similar Solids

Objectives:
- Apply proportional reasoning to find the missing measurement in similar solids

Lesson 11: Surface Area & Volume in the Real World (two-day lesson)

Objectives:
- Calculate the surface area and volume (in appropriate units) of three-dimensional objects found in the home, such as a can of food, box of tissues, shoebox, etc.

Lesson 12: Measurement Unit Review

Objectives:
- Review previously studied material

Lesson 13: Measurement Unit Test

Unit 3: Using Graphs to Analyze Data

In this unit of the course, you will examine, analyze and construct scatter plots and tables. With these skills, you will be able to roughly predict the strength and direction of a pattern of association between two things. You will also find measures of central tendency, and determine which graph and measure of central tendency best represents a data set.

Objectives:
- Calculate the mean, median, and mode of a data set, and explain the best use of each
- Determine the best type of graph to display a data set
- Identify patterns of association—indicating strength and direction—of two factors, and make predictions based upon a scatter plot

Lesson 1: Measures of Center

Objectives:
- Compute mean, median, mode, range, and select appropriate measure of tendency

Lesson 2: Frequency

Objectives:
- Utilize line plots, frequency tables, and histograms to display data

Lesson 3: Venn Diagram

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Objectives:
• Examine relationships between data with Venn diagrams

Lesson 4: Stem-and-Leaf Plots (two-day lesson)

Objectives:
• Represent and interpret data using stem-and-leaf plots

Lesson 5: Box-and-Whisker Plots (two-day lesson)

Objectives:
• Represent and interpret data using box-and-whisker plots

Lesson 6: Scatter Plots

Objectives:
• Create scatter plots and analyze trends to make predictions

Lesson 7: Bivariate Data (two-day lesson)

Objectives:
• Analyze bivariate data
• Describe patterns of association in bivariate data

Lesson 8: Modeling Data with Lines

Objectives:
• Examine data to determine accuracy of models

Lesson 9: Circle Graphs (two-day lesson)

Objectives:
• Interpret data using circle graphs
• Present data by creating circle graphs

Lesson 10: Choosing the Right Graph

Objectives:
• Choose the best graph to represent various data

Lesson 11: Relative Frequency (two-day lesson)

Objectives:
• Create and analyze data using a two-way table

Lesson 12: Using Graphs to Analyze Data Unit Review (two-day lesson)

Objectives:
• Review for unit test

Lesson 13: Using Graphs to Analyze Data Unit Test

Unit 4: Probability
In this unit of the course, you will find probabilities and odds of events. You will learn that events can be independent or dependent and that results of events may be used to make predictions about future events. You will learn the rules for calculating the numbers of ways objects can be arranged, depending on whether the order of the arrangement matters.

Objectives:
- Calculate odds and probabilities of dependent and independent events, and make predictions using those calculations
- Calculate permutations and combinations of sets of objects

**Lesson 1: Theoretical and Experimental Probability (two-day lesson)**

Objectives:
- Find theoretical probabilities, experimental probabilities, and odds

**Lesson 2: Independent and Dependent Events**

Objectives:
- Find the probabilities of independent and dependent events

**Lesson 3: Making Predictions**

Objectives:
- Make predictions based on theoretical and experimental probabilities

**Lesson 4: Permutations**

Objectives:
- Find the number of permutations of a set of objects

**Lesson 5: Combinations (two-day lesson)**

Objectives:
- Find the number of combinations of a set of objects using lists and combination notation

**Lesson 6: Probability Unit Review (two-day lesson)**

Objectives:
- Review to increase your probability of success on the unit test

**Lesson 7: Probability Unit Test**

**Unit 5: Functions**

This unit focuses on the concept of functions. By the end, you will be able to identify a function as an equation having one output for every input, and you will be able to graph linear and non-linear functions on a coordinate plane.

Objectives:
- Describe a sequence
- Identify and graph functions and determine slope and y-intercept
- Determine the solution of two functions by graphing

**Lesson 1: Sequences**

Objectives:
- Write rules for sequences and use the rules to find terms
Lesson 2: Relating Graphs and Events

Objectives:
- Interpret and sketch graphs that represent real-world situations

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Lesson 3: Functions

Objectives:
- Identify functions
- Represent functions with equations, tables, and function notation

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Lesson 4: Understanding the Slope

Objectives:
- Calculate slope of a line from different representations

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Lesson 5: Slope and Similar Triangles (two-day lesson)

Objectives:
- Demonstrate that the slope between any two points on a line is the same
- Derive the equation for a line in slope-intercept form: \( y = mx + b \)

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Lesson 6: Graphing Linear Functions

Objectives:
- Use tables and equations to graph linear functions

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Lesson 7: Graphing Proportional Relationships (two-day lesson)

Objectives:
- Graph proportional relationships
- Explore the relationship between the slope of a line on a graph and unit rate

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Lesson 8: Writing Rules for Linear Functions

Objectives:
- Write function rules from words, tables, and graphs

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Lesson 9: Solving Systems of Equations (two-day lesson)

Objectives:
- Solve systems of equations by graphing and by substitution

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Lesson 10: Nonlinear Functions

Objectives:
- Graph and write quadratic functions and other nonlinear functions

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Lesson 11: Comparing Functions

Objectives:
Lesson 12: Functions Unit Review (two-day lesson)

Objectives:
• Review for unit test

Lesson 13: Functions Unit Test

Unit 6: Polynomials and Properties of Exponents

In this final unit, you will be working with expressions called polynomials. By the end, you will be able to add, subtract, and multiply these expressions. You will also simplify powers and use negative and zero exponents.

Objectives:
• Add, subtract, and multiply polynomials
• Multiply and divide powers with the same base, including numbers in scientific notation

Lesson 1: Polynomials

Objectives:
• Write algebraic expressions and simplify polynomials

Lesson 2: Adding and Subtracting Polynomials

Objectives:
• Add and subtract polynomials

Lesson 3: Exponents and Multiplication (two-day lesson)

Objectives:
• Multiply powers with the same base
• Multiply numbers in scientific notation

Lesson 4: Multiplying Polynomials

Objectives:
• Multiply monomials and binomials

Lesson 5: Exponents and Division

Objectives:
• Divide powers with the same base
• Simplify the expressions with negative exponents

Lesson 6: Polynomials and Properties of Exponents Review (two-day lesson)

Objectives:
• Review problems and terms

Lesson 7: Polynomials and Properties of Exponents Unit Test
ALGEBRA 1 A
Algebra 1 A

This course is the first of two that comprise Algebra 1. In this course, the student will gain a foundational understanding of the real number system, expressions, equations, and inequalities. The student will be taught to solve simple and multi-step equations and inequalities and represent those solutions graphically. In addition, students will explore linear or nonlinear functions and represent those functions on the coordinate plane. Finally, the student will solve systems of equations and inequalities and represent those solutions graphically.

Throughout the course, problem solving, critical thinking, and real-world application of mathematical concepts will be required.

Unit 1: Foundations for Algebra

In this unit, you will be provided with a general introduction to Algebra 1 by reviewing many concepts from previous math courses including variables, expressions, and real-number operations. This unit provides you with a solid foundation for the remainder of Algebra 1. You will complete a unit portfolio project in which you will apply your knowledge of using variables to represent unknown and variable quantities, and writing expressions and equations.

Objectives:
• Write and simplify expressions
• Graph, order, and compare real numbers on a number line
• Use properties of real numbers to simplify expressions
• Add, subtract, multiply, and divide real numbers

Lesson 1: Variables and Expressions

Objectives:
• Write algebraic expressions

Lesson 2: Order of Operations and Evaluating Expressions

Objectives:
• Simplify expressions involving exponents
• Use the order of operations to evaluate expressions

Lesson 3: Real Numbers and the Number Line

Objectives:
• Classify, graph, and compare real numbers
• Find and estimate square roots

Lesson 4: Properties of Real Numbers

Objectives:
• Identify and use properties of real numbers, including Associative Properties of Addition and Multiplication, Commutative Properties of Addition and Multiplication, Identity Properties of Addition and Multiplication, and Zero Property of Multiplication

Lesson 5: Adding and Subtracting Real Numbers

Objectives:
• Find sums and differences of real numbers
Lesson 6: Multiplying and Dividing Real Numbers

Objectives:
- Find products and quotients of real numbers

Lesson 7: The Distributive Property

Objectives:
- Use the Distributive Property to simplify expressions

Lesson 8: Foundations for Algebra Unit Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study

Lesson 9: Unit Test: Unit 1 Foundations for Algebra

Objectives:
- Demonstrate understanding of Unit 1 concepts

Unit 2: Solving Equations

In this unit, you will learn how to solve problems using a variety of problem-solving strategies including tables, graphs, and equations. This unit also includes instruction on solving one, two, or multi-step equations, a skill that is essential to your learning of higher-level mathematics. You will complete a variety of assessments in this unit, including Quick Checks, quizzes, and a unit test.

Objectives:
- Use tables and graphs to solve a problem
- Solve equations with one, two, or multiple steps
- Solve equations with variables on both sides
- Solve equations and formulas for a given variable, using them in real-world scenarios

Lesson 1: Introduction to Equations

Objectives:
- Solve equations using tables and mental math

Lesson 2: Patterns, Equations, and Graphs (two-day lesson)

Objectives:
- Use tables, equations, and graphs to describe relationships

Lesson 3: Solving One-Step Equations

Objectives:
- Solve one-step equations with one variable

Lesson 4: Solving Two-Step Equations

Objectives:
- Solve two-step equations with one variable

Lesson 5: Solving Multi-Step Equations (two-day lesson)

Objectives:
Lesson 6: Solving Equations with Variables on Both Sides (two-day lesson)

Objectives:
• Solve equations with variables on both sides
• Identify equations that are identities or have no solution

Lesson 7: Literal Equations and Formulas (two-day lesson)

Objectives:
• Rewrite and use literal equations and formulas

Lesson 8: Solving Equations Unit Review

Objectives:
• Decide which strategies you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 9: Solving Equations Unit Test

Unit 3: Solving Inequalities

In this unit, you will learn how to solve inequalities that require one or more steps. You will also learn how to graph the solutions to inequalities on the number line. Finally, you will explore absolute value equations.

Objectives:
• Solve inequalities with one, two, or multiple steps
• Graph the solutions to inequalities on the number line
• Solve and graph absolute value equations and inequalities

Lesson 1: Graphing Inequalities

Objectives:
• Write, graph, and identify solutions of inequalities

Lesson 2: Solving Inequalities Using Addition or Subtraction

Objectives:
• Use addition or subtraction to solve inequalities

Lesson 3: Solving Inequalities Using Multiplication/Division

Objectives:
• Use multiplication or division to solve inequalities

Lesson 4: Solving Multi-Step Inequalities (two-day lesson)

Objectives:
• Solve multi-step inequalities
Lesson 5: Compound Inequalities (two-day lesson)

Objectives:
- Solve and graph inequalities containing the word and
- Solve and graph inequalities containing the word or

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Lesson 6: Absolute Value Equations and Inequalities (three-day lesson)

Objectives:
- Solve equations and inequalities involving absolute value

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Lesson 7: Solving Inequalities Unit Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords, formulas, and all important concepts that may be covered on this exam

Lesson 8: Unit 3 Test

Unit 4: Introduction to Functions

In this unit, you will explore functions and their applications. You will be introduced to the characteristics of a function and learn to compare linear and nonlinear functions. You will also graph functions on the coordinate plane and write functions given their graph. Functions are an important part of algebra because they lay a foundation for understanding higher-level mathematics problems that depend on your understanding of the characteristics of functions.

Objectives:
- Write, graph, and identify the solutions to inequalities
- Represent mathematical relationships using graphs
- Identify linear and nonlinear functions
- Graph functions on the coordinate plane
- Write equations to represent a function

Lesson 1: Using Graphs to Relate Two Quantities (two-day lesson)

Objectives:
- Represent mathematical relationships using graphs

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Lesson 2: Formalizing Relations and Functions (two-day lesson)

Objectives:
- Determine whether a relation is a function
- Find domain and range and use function notation

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Lesson 3: Patterns and Linear Functions (two-day lesson)

Objectives:
- Identify and represent patterns that describe linear functions

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Lesson 4: Patterns and Nonlinear Functions (two-day lesson)

Objectives:
- Identify and represent patterns that describe nonlinear functions

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Lesson 5: Graphing a Function Rule (two-day lesson)  
Objectives:  
- Graph equations that represent functions

Lesson 6: Writing a Function Rule (two-day lesson)  
Objectives:  
- Write equations that represent functions

Lesson 7: Sequences and Functions (two-day lesson)  
Objectives:  
- Identify and extend patterns in sequences
- Represent arithmetic sequences using function notation

Lesson 8: Introduction to Functions Unit Review  
Objectives:  
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 9: Unit 4 Test  

Lesson 5: Linear Functions  
In this unit, you will learn how to use several types of linear equations, including slope-intercept, point-slope, and standard forms. You will use slope to compare parallel and perpendicular lines and explore relationships between these types of lines.

Objectives:  
- Write linear equations in standard form, point-slope form, and slope-intercept form
- Find slope and x- and y-intercepts
- Write equations of parallel and perpendicular lines
- Write equations to represent direct variation
- Graph linear equations, equations of direct variations, and horizontal and vertical translations

Lesson 1: Rate of Change and Slope (two-day lesson)  
Objectives:  
- Find rates of change from tables
- Find slope

Lesson 2: Direct Variation (two-day lesson)  
Objectives:  
- Write and graph an equation of a direct variation

Lesson 3: Slope-Intercept Form (two-day lesson)  
Objectives:  
- Write linear equations using slope-intercept form
- Graph linear equations in slope-intercept form
Lesson 4: Point-Slope Form (two-day lesson)

Objectives:
- Write and graph linear equations using point-slope form

Lesson 5: Standard Form (two-day lesson)

Objectives:
- Graph linear equations using intercepts
- Write linear equations in standard form

Lesson 6: Parallel and Perpendicular Lines (two-day lesson)

Objectives:
- Determine whether lines are parallel, perpendicular, or neither
- Write equations of parallel lines and perpendicular lines

Lesson 7: Linear Functions Unit Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 8: Linear Functions Unit Test

Unit 6: Systems of Equations and Inequalities

In this unit, you will apply what you know about linear equations and inequalities to systems of linear equations or inequalities. You will solve systems of linear equations by graphing, substitution, or elimination. You will graph linear inequalities and solve systems of two linear equalities. Finally, you will apply these topics to solve real-world scenarios.

Objectives:
- Solve systems of linear equations by graphing
- Solve systems of linear equations by elimination
- Solve systems of linear equations by substitution
- Determine which method to use when solving a system of linear equations

Lesson 1: Solving Systems by Graphing (two-day lesson)

Objectives:
- Analyze special systems
- Solve systems of equations by graphing

Lesson 2: Solving Systems Using Substitution (three-day lesson)

Objectives:
- Solve systems of equations using substitution

Lesson 3: Solving Systems Using Elimination (three-day lesson)

Objectives:
- Solve systems by adding or subtracting to eliminate a variable
Lesson 4: Applications of Linear Systems (three-day lesson)

Objectives:
- Choose the best method for solving a system of linear equations

Lesson 5: Linear Inequalities (two-day lesson)

Objectives:
- Solve systems of linear inequalities by graphing
- Model real-world situations using systems of linear inequalities

Lesson 6: Systems of Linear Inequalities (three-day lesson)

Objectives:
- Solve systems of linear inequalities
- Model real-world situations using systems of linear inequalities

Lesson 7: Systems of Equations and Inequalities Unit Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, key words, formulas, and all important concepts that may be covered in this exam

Lesson 8: Unit 6 Test

Unit 7: Algebra 1 A Semester Exam

In this unit, you will have the opportunity to prepare for and take the semester exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Lesson 1: Algebra 1 A Semester Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords and vocabulary terms, and all important concepts that may be covered on this exam

Lesson 2: Algebra 1 A Semester Exam
ALGEBRA 1 A, PART 1
Algebra 1 A, Part 1

This course includes the first half of the Algebra 1 A course content. In this course, the student will gain a foundational understanding of the real number system, expressions, equations, and inequalities. The student will solve simple and multi-step equations and inequalities and represent those solutions graphically.

There are many opportunities for review and reflection in the course and the student is encouraged to monitor progress with the course content. Throughout the course, problem solving, critical thinking, and real-world application of mathematical concepts will be required.

Unit 1: Ready, Set, Algebra

In this unit, you will focus on new ways to think about and approach mathematics. You will learn how to set SMART goals, establish study strategies that reduce math anxiety, and review ways to be an active learner. In addition, this unit introduces the various resources that are available to you in your Algebra 1 course.

Objectives:
- Use strategies such as self-assessment and reflection in order to improve mathematical performance
- Distinguish between effort-based and ability-based models of learning
- Assess personal readiness for study and learning
- Use resources to assist with goal-setting and attainment

Lesson 1: Preparation for Success

Objectives:
- Examine organizational skills and learning strategies
- Set goals in the context of mathematical learning
- Reflect on strengths, weaknesses, and the value of goal-setting
- Distinguish between effort-based and ability-based models of learning

Lesson 2: Be Your Own Best Resource

Objectives:
- Identify the various resources that you can use in the course
- Discuss strategies for using resources effectively

Unit 2: Foundations for Algebra

This unit provides you with a solid foundation for the remainder of the Algebra 1 course. In this unit, you will begin with a review of many concepts from previous math courses, including variables, expressions, and real-number operations.

Objectives:
- Write and simplify expressions
- Graph, order, and compare real numbers on a number line
- Use properties of real numbers to simplify expressions
- Add, subtract, multiply, and divide real numbers

Lesson 1: Variables and Expressions (two-day lesson)

Objectives:
- Write algebraic expressions

Lesson 2: Order of Operations and Evaluating Expressions (two-day lesson)

Objectives:
- Simplify expressions involving exponents
- Use the order of operations to evaluate expressions
Lesson 3: Real Numbers and the Number Line (two-day lesson)

Objectives:
- Classify, graph, and compare real numbers
- Find and estimate square roots

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Lesson 4: Properties of Real Numbers (two-day lesson)

Objectives:
- Identify and use properties of real numbers, including Associative Properties of Addition and Multiplication, Commutative Properties of Addition and Multiplication, Identity Properties of Addition and Multiplication, and Zero Property of Multiplication

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Lesson 5: Mid-Unit Review (two-day lesson)

Objectives:
- Review concepts from Lessons 1–4 of the Foundations for Algebra unit

Lesson 6: Adding and Subtracting Real Numbers (two-day lesson)

Objectives:
- Find sums and differences of real numbers

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Lesson 7: Multiplying and Dividing Real Numbers (two-day lesson)

Objectives:
- Find products and quotients of real numbers

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Lesson 8: The Distributive Property (two-day lesson)

Objectives:
- Use the Distributive Property to simplify expressions

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Lesson 9: Foundations for Algebra Unit Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study

Lesson 10: Foundations for Algebra Unit Test

Objectives:
- Demonstrate understanding of Unit 1 concepts

Unit 3: Solving Equations

In this unit, you will learn how to solve problems using a variety of problem-solving strategies, including tables, graphs, and equations. This unit also includes instruction on solving one-, two-, or multi-step equations, a skill that is essential to learning higher-level mathematics. You will complete a variety of assessments in this unit, including Quick Checks, quizzes, and a unit test.

Objectives:
- Use tables and graphs to solve a problem
- Solve equations with one, two, or multiple steps
- Solve equations with variables on both sides
- Solve equations and formulas for a given variable, using them in real-world scenarios

Lesson 1: Introduction to Equations (two-day lesson)
Objectives:
• Solve equations using tables and mental math

Lesson 2: Patterns, Equations, and Graphs (two-day lesson)
Objectives:
• Use tables, equations, and graphs to describe relationships

Lesson 3: Solving One-Step Equations (two-day lesson)
Objectives:
• Solve one-step equations in one variable

Lesson 4: Solving Two-Step Equations (two-day lesson)
Objectives:
• Solve two-step equations in one variable

Lesson 5: Mid-Unit Review (two-day lesson)
Objectives:
• Review concepts from Lessons 1–4 of the Solving Equations unit

Lesson 6: Solving Multi-Step Equations (two-day lesson)
Objectives:
• Solve multi-step equations in one variable

Lesson 7: Solving Equations with Variables on Both Sides
Objectives:
• Solve equations with variables on both sides
  • Identify equations that are identities or have no solution

Lesson 8: Literal Equations and Formulas (two-day lesson)
Objectives:
• Rewrite and use literal equations and formulas

Lesson 9: Solving Equations Unit Review (two-day lesson)
Objectives:
• Decide which strategies you will use to prepare for your exam
  • Organize your time and study materials
  • Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 10: Solving Equations Unit Test

Unit 4: Solving Inequalities
In this unit, you will learn how to solve inequalities that require one or more steps. You will also learn how to graph the solutions to inequalities on the number line. Set notation will be introduced as a tool for expressing the solutions to inequalities. Finally, you will explore absolute value equations and inequalities, and the union and intersection of sets.

Objectives:
• Solve inequalities with one, two, or multiple steps
  • Graph the solutions to inequalities on the number line
  • Use set notation to express the solutions to inequalities
  • Solve and graph absolute value equations and inequalities
  • Find the intersection, union, and complements of sets
Lesson 1: Graphing Inequalities (two-day lesson)

Objectives:
- Write, graph, and identify solutions of inequalities

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Lesson 2: Solving Inequalities Using Addition or Subtraction (two-day lesson)

Objectives:
- Use addition or subtraction to solve inequalities

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Lesson 3: Solving Inequalities by Multiplying and Dividing (two-day lesson)

Objectives:
- Use multiplication or division to solve inequalities

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Lesson 4: Solving Multi-Step Inequalities (two-day lesson)

Objectives:
- Solve multi-step inequalities

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Lesson 5: Mid-Unit Review (two-day lesson)

Objectives:
- Review concepts from Lessons 1–4 of the Solving Inequalities unit

Lesson 6: Working with Sets (two-day lesson)

Objectives:
- Write sets and identify subsets
- Find the complement of a set

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Lesson 7: Compound Inequalities (two-day lesson)

Objectives:
- Solve and graph inequalities containing the word "and"
- Solve and graph inequalities containing the word "or"

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Lesson 8: Absolute Value Equations and Inequalities (three-day lesson)

Objectives:
- Solve equations and inequalities involving absolute value

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Lesson 9: Unions and Intersections of Sets (two-day lesson)

Objectives:
- Find the unions and intersections of sets

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Lesson 10: Solving Inequalities Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam.
• Organize your time and study materials.
• Review your notes, keywords, formulas, and all important concepts that may be covered on this exam.

Lesson 11: Solving Inequalities Unit Test

Unit 5: Semester Review and Exam

In this unit, you will have the opportunity to prepare for and take the semester exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Lesson 1: Algebra 1 A, Part 1 Review (two-day lesson)

Objectives:
• Decide which strategies you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, key words and vocabulary terms, formulas, and all important concepts that may be covered on this exam

Lesson 2: Semester Exam
ALGEBRA 1 A, PART 2
Algebra 1 A, Part 2

This course includes the second half of the Algebra 1 A course content. In this course, the student will study functions that are either linear or nonlinear in nature and represent those functions on the coordinate plane. Also, the student will solve systems of equations and inequalities and represent those solutions graphically.

There are many opportunities for review and reflection in the course and the student is encouraged to monitor progress with the course content. Throughout the course, problem solving, critical thinking, and real-world application of mathematical concepts will be required.

Unit 1: Introduction to Functions

In this unit, you will explore functions and their applications. You will be introduced to the characteristics of a function and be able to compare linear and nonlinear functions. You will also graph functions on a coordinate plane and write functions given their graph. Functions are an important part of algebra because they lay a foundation for understanding higher-level mathematics problems that depend on your understanding of the characteristics of functions.

Objectives:
- Write, graph, and identify the solutions to inequalities
- Represent mathematical relationships using graphs
- Identify linear and nonlinear functions
- Graph functions on the coordinate plane
- Write equations to represent a function

Lesson 1: Using Graphs to Relate Two Quantities (two-day lesson)

Objectives:
- Represent mathematical relationships using graphs

Lesson 2: Patterns and Linear Functions (two-day lesson)

Objectives:
- Identify and represent patterns that describe linear functions

Lesson 3: Patterns and Nonlinear Functions (two-day lesson)

Objectives:
- Identify and represent patterns that describe nonlinear functions

Lesson 4: Mid-Unit Review (two-day lesson)

Objectives:
- Review concepts from the first three lessons of the Introduction to Functions unit

Lesson 5: Graphing a Function Rule (two-day lesson)

Objectives:
- Graph equations that represent functions

Lesson 6: Writing a Function Rule (two-day lesson)

Objectives:
- Write equations that represent functions
Lesson 7: Formalizing Relations and Functions (two-day lesson)

Objectives:
- Determine whether a relation is a function
- Find domain and range and use function notation
- Find the inverse of a function

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Lesson 8: Sequences and Functions (two-day lesson)

Objectives:
- Identify and extend patterns in sequences
- Represent arithmetic sequences using function notation

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Lesson 9: Introduction to Functions Unit Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords, formulas, and all important concepts that may be covered on this exam

Lesson 10: Functions Unit Test

Unit 2: Linear Functions

In this unit, you will learn how to use several types of linear equations, including slope-intercept, point-slope, and standard forms. You will use slope to compare parallel and perpendicular lines, and you will explore relationships between those types of lines. You will also graph and translate absolute value functions on the coordinate plane. You will also analyze scatter plots and fit regression lines to the data points.

Objectives:
- Write linear equations in standard form, point-slope form, and slope-intercept form
- Write equations of parallel and perpendicular lines
- Write equations to represent direct variation
- Graph linear equations, equations of direct variations, absolute value functions, and horizontal and vertical translations
- Describe the direction and strength of the relationship between two variables on a scatter plot

Lesson 1: Rate of Change and Slope (two-day lesson)

Objectives:
- Find rates of change from tables
- Find slope

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Lesson 2: Direct Variation (two-day lesson)

Objectives:
- Write and graph an equation of a direct variation

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Lesson 3: Slope-Intercept Form (two-day lesson)

Objectives:
- Write linear equations using slope-intercept form
- Graph linear equations in slope-intercept form

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Lesson 4: Point Slope Form (two-day lesson)
Objectives:
- Write and graph linear equations using point-slope form

Lesson 5: Mid-Unit Review (two-day lesson)

Objectives:
- Review concepts from Lessons 1–4

Lesson 6: Standard Form (two-day lesson)

Objectives:
- Graph linear equations using intercepts
- Write linear equations in standard form

Lesson 7: Parallel and Perpendicular Lines (two-day lesson)

Objectives:
- Determine whether lines are parallel, perpendicular, or neither
- Write equations of parallel lines and perpendicular lines

Lesson 8: Graphing Absolute Value Functions (two-day lesson)

Objectives:
- Graph an absolute value function
- Translate the graph of an absolute value function

Lesson 9: Scatter Plots and Regression Lines (two-day lesson)

Objectives:
- Describe the direction and strength of the relationship between two variables on a scatter plot
- Make predictions about a data set and evaluate the reliability of predictions

Lesson 10: Linear Functions Unit Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 11: Linear Functions Unit Test

Unit 3: Systems of Equations and Inequalities

In this unit, you will apply what you know about linear equations and inequalities to systems of linear equations or inequalities. You will solve systems of linear equations using different methods including graphing, substituting, and eliminating. You will graph linear inequalities and solve systems of two linear equalities. Finally, you will apply these topics to solve real-world scenarios.

Objectives:
- Solve systems of linear equations by graphing
- Solve systems of linear equations by elimination
- Solve systems of linear equations by substitution
- Graph linear inequalities and systems of linear inequalities

Lesson 1: Solving Systems by Graphing (two-day lesson)
Lesson 2: Solving Systems Using Substitution (two-day lesson)

Objectives:
- Solve systems of equations using substitution

Lesson 3: Solving Systems Using Elimination (two-day lesson)

Objectives:
- Solve systems by adding or subtracting to eliminate a variable

Lesson 4: Applications of Linear Systems (two-day lesson)

Objectives:
- Choose the best method for solving a system of linear equations

Lesson 5: Mid-Unit Review (two-day lesson)

Objectives:
- Review material from Lessons 1–4

Lesson 6: Linear Inequalities (two-day lesson)

Objectives:
- Solve systems of linear inequalities by graphing
- Model real-world situations using systems of linear inequalities

Lesson 7: Systems of Linear Inequalities (two-day lesson)

Objectives:
- Solve systems of linear inequalities
- Model real-world situations using systems of linear inequalities

Lesson 8: Systems of Equations and Inequalities Unit Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords, formulas, and all important concepts that may be covered on this exam

Lesson 9: Systems of Equations and Inequalities Unit Test

Unit 4: Semester Review and Exam

In this unit, you will have the opportunity to prepare for and take the semester exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned will help you to be successful with both the objective and essay questions.

Lesson 1: Algebra 1 A, Part 2 Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, key words and vocabulary terms, formulas, and all important concepts that may be covered on this exam

Lesson 2: Algebra 1 A Semester Exam
ALGEBRA 1 B
Algebra 1 B

This course is the second part of a two-part sequence covering Algebra 1. The student will use their knowledge of real number operations, expressions, equations, inequalities, and functions to solve algebra concepts. This course will introduce the student to exponents and use those exponent rules to solve exponential functions. The student will learn how to identify and solve polynomial equations using a variety of methods including factoring. The student will also learn how to work with quadratic functions and equations and represent both of those on a coordinate plane. Students will work with and solve both radical and rational expressions and equations. Finally, the student will be introduced to statistics and learn to use data to apply to probability problems in theory and real-world scenarios.

Throughout the course, problem solving, critical thinking, and real-world application of mathematical concepts will be required.

Unit 1: Exponents and Exponential Functions

In this unit, you will learn about expressions involving exponents in several forms. You will learn about zero and negative exponents and use what you know about exponents to solve problems using standard and scientific notation. You will learn and apply the rules for multiplication and division of expressions involving exponents. Finally, you will evaluate exponential functions and use exponential functions to solve real-world problems of exponential growth and decay.

Objectives:
- Write numbers in scientific notation
- Define and use zero and negative exponents
- Apply rules for multiplying powers
- Apply the rules for dividing powers
- Use exponential functions to show growth or decay

Lesson 1: Zero and Negative Exponents (two-day lesson)

Objectives:
- Simplify expressions involving zero and negative exponents

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Lesson 2: Scientific Notation (two-day lesson)

Objectives:
- Write numbers in scientific and standard notation
- Compare and order numbers using standard notation

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Lesson 3: Multiplying Powers with the Same Base (two-day lesson)

Objectives:
- Multiply powers with the same base

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Lesson 4: More Multiplication Properties of Exponents (two-day lesson)

Objectives:
- Raise a power to a power
- Raise a product to a power

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Lesson 5: Division Properties of Exponents (two-day lesson)

Objectives:
- Divide powers with the same base
- Raise a quotient to a power

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Lesson 6: Exponential Functions

Objectives:
- Evaluate and graph exponential functions

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Lesson 7: Exponential Growth and Decay

Objectives:
- Model exponential growth or decay

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Lesson 8: Exponents and Exponential Functions Unit Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 9: Exponents and Exponential Functions Unit Test

Unit 2: Polynomials and Factoring

In this unit, you will learn how to classify, add, and subtract polynomials. You will also learn to multiply polynomials and monomials, and how to factor polynomials using GCF. You will then find the squares of a binomial, the sum and difference of squares, the product of a sum and difference, and you will factor higher-degree polynomials.

Objectives:
- Classify, add, and subtract polynomials
- Multiply a monomial by a polynomial
- Factor a monomial from a polynomial
- Multiply two binomials or a binomial by a trinomial
- Find a square of a binomial

Lesson 1: Adding and Subtracting Polynomials (two-day lesson)

Objectives:
- Classify, add, and subtract polynomials

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Lesson 2: Multiplying and Factoring Polynomials (two-day lesson)

Objectives:
- Multiply a monomial by a polynomial
- Factor a monomial from a polynomial

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Lesson 3: Multiplying Binomials (three-day lesson)

Objectives:
- Multiply two binomials or a binomial by a trinomial

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Lesson 4: Multiplying Special Cases (two-day lesson)

Objectives:
- Find a square of a binomial
- Find the product of a sum and a difference

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Lesson 5: Factoring x^2 + bx + c (two-day lesson)
Objectives:
• Factor trinomials in the form $x^2 + bx + c$

Lesson 6: Factoring $ax^2 + bx + c$ (two-day lesson)

Objectives:
• Factor trinomials of the form $ax^2 + bx + c$

Lesson 7: Factoring Special Cases (two-day lesson)

Objectives:
• Factor perfect-square trinomials and the differences of two squares

Lesson 8: Factoring by Grouping (two-day lesson)

Objectives:
• Factor perfect square trinomials and the differences of two squares

Lesson 9: Polynomials and Factoring Unit Review

Objectives:
• Decide which strategies you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 10: Polynomials and Factoring Unit Test

Unit 3: Quadratic Functions and Equations

In this unit, you will learn how to work with quadratic functions and quadratic equations. You will learn to graph functions in several forms and solve both quadratic equations and quadratic functions. You will learn to simplify radicals and solve problems using radicals in expressions and equations. You will also learn to identify extraneous solutions to radical equations. These topics will be important foundational skills for your study of higher level mathematics.

Objectives:
• Graph quadratic functions of the form $y = ax^2$ and $y = ax^2 + c$
• Graph functions of the form $y = ax^2 + bx + c$
• Solve quadratic equations by graphing and using square roots and by factoring

Lesson 1: Quadratic Graphs and Their Properties (two-day lesson)

Objectives:
• Graph quadratic functions of the form $y = ax^2$ and $y = ax^2 + c$

Lesson 2: Quadratic Functions (two-day lesson)

Objectives:
• Graph quadratic functions of the form $y = ax^2 + bx + c$

Lesson 3: Solving Quadratic Equations (two-day lesson)

Objectives:
• Solve quadratic equations by graphing and using square roots
Lesson 4: Factoring to Solve Quadratic Equations (three-day lesson)

Objectives:
- Solve quadratic equations by factoring

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Lesson 5: The Quadratic Formula and the Discriminant (three-day lesson)

Objectives:
- Solve quadratic equations by using the quadratic formula

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Lesson 6: Simplifying Radicals (two-day lesson)

Objectives:
- Simplify radicals involving products and quotients

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Lesson 7: Solving Radical Equations (two-day lesson)

Objectives:
- Solve equations containing radicals
- Identify extraneous solutions

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Lesson 8: Quadratic Functions and Equations Unit Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam.

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Lesson 9: Quadratic Functions and Equations Unit Test

Unit 4: Rational Expressions and Functions

In this unit you will work with rational expressions and equations. To begin, you will learn to simplify rational expressions. Then, you will learn to multiply and divide rational expressions and polynomials. You will also learn to simplify complex fractions. You will learn to define inverse variations and compare direct and inverse variations, as well as graphing rational functions.

Objectives:
- Simplify rational expressions
- Multiply and divide rational expressions
- Simplify complex fractions
- Divide polynomials
- Add and subtract rational expressions

Lesson 1: Simplifying Rational Expressions (two-day lesson)

Objectives:
- Simplify rational expressions

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Lesson 2: Multiplying and Dividing Rational Expressions (two-day lesson)

Objectives:
- Multiply and divide rational expressions
Lesson 3: Dividing Polynomials (two-day lesson)

Objectives:
- Divide polynomials

Lesson 4: Adding and Subtracting Rational Expressions (two-day lesson)

Objectives:
- Add and subtract rational expressions

Lesson 5: Solving Rational Equations (two-day lesson)

Objectives:
- Solve rational equations and proportions

Lesson 6: Inverse Variation (two-day lesson)

Objectives:
- Write and graph equations for inverse operations
- Compare direct and inverse variations

Lesson 7: Graphing Rational Functions (two-day lesson)

Objectives:
- Graph rational functions

Lesson 8: Rational Expressions and Functions Unit Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 9: Rational Expressions and Functions Unit Test

Unit 5: Data Analysis and Probability

In this unit, you will explore data analysis and probability. You will work with various graphic representations of data including tables, histograms, box-and-whisker plots, and line graphs. Using data, you will explore measures of central tendency including mean, median, mode, and range. Finally, you will work with permutations, combinations, and independent and dependent events.

Objectives:
- Make and interpret frequency tables and histograms
- Find mean, median, mode, and range
- Make and interpret box-and-whisker plots

Lesson 1: Frequency and Histograms (two-day lesson)
Lesson 2: Measures of Central Tendency and Dispersion (two-day lesson)

Objectives:
- Find mean, median, mode, and range

Lesson 3: Box-and-Whisker Plots (two-day lesson)

Objectives:
- Find quartiles and percents
- Make and interpret box-and-whisker plots

Lesson 4: Samples and Surveys

Objectives:
- Classify data and analyze samples and surveys

Lesson 5: Permutations and Combinations (two-day lesson)

Objectives:
- Find permutations and combinations

Lesson 6: Theoretical and Experimental Probability (two-day lesson)

Objectives:
- Find theoretical and experimental probability

Lesson 7: Probability of Compound Events (two-day lesson)

Objectives:
- Find probabilities of mutually exclusive and overlapping events
- Find probabilities of independent and dependent events

Lesson 8: Data Analysis and Probability Unit Review

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 9: Data Analysis and Probability Unit Test

Unit 6: Semester B Exam and Review

This unit reviews concepts from Semester B of the Algebra 1 course. The unit begins with a review assignment that will help you recall topics from Units 1–6. You will also spend time utilizing the one-page review guides created at the end of each unit. These review guides contain key vocabulary, points to remember, and sample problems that you can rework. Practice opportunities from the textbook are included. The assessment is included at the conclusion of the unit in the form of the semester exam.

Lesson 1: Semester B Review (two-day lesson)

Lesson 2: Semester B Exam
ALGEBRA 1 B, PART 1
Algebra 1 B, Part 1

This course includes the first half of the Algebra 1 B course content. The course begins with a review of concepts and skills from Algebra 1 A. Then, the student will be introduced to operations involving exponents and then explore exponential functions. The student will learn how to identify and solve polynomial equations using a variety of methods including factoring. Lastly, the student will graph quadratic equations and solve them using a variety of methods, including the quadratic formula.

There are many opportunities for review and reflection in the course and the student is encouraged to monitor progress with the course content. Throughout the course, problem solving, critical thinking, and real-world application of mathematical concepts will be required.

Unit 1: Ready, Set, Algebra

In this unit, you will focus on new ways to think about and approach mathematics. You will learn how to set SMART goals, establish study strategies that reduce math anxiety, and review ways to be an active learner. In addition, this unit introduces the various resources that are available to you in your Algebra 1 course.

Objectives:
- Use strategies such as self-assessment and reflection in order to improve mathematical performance
- Distinguish between effort-based and ability-based models of learning
- Assess personal readiness for study and learning
- Use resources to assist with goal-setting and attainment

Lesson 1: Preparation for Success

Objectives:
- Examine organizational skills and learning strategies
- Set goals in the context of mathematical learning
- Reflect on strengths, weaknesses, and the value of goal-setting
- Distinguish between effort-based and ability-based models of learning

Lesson 2: Be Your Own Best Resource

Objectives:
- Identify the various resources that you can use in the course
- Discuss strategies for using resources effectively

Unit 2: Review of Algebra 1 A

In this unit, you will review the major concepts from Algebra 1A that are applicable to Algebra 1B. These include working with integers, order of operations, solving linear equations, working with linear functions, and graphing on a coordinate plane.

Objectives:
- Add and subtract integers
- Use the Order of Operations to simplify an expression
- Solve one-step, two-step, and multi-step equations
- Graph linear functions
- Solve systems of equations by graphing, substitution, and elimination

Lesson 1: Review of Foundations for Algebra (two-day lesson)

Objectives:
- Add and subtract integers
- Use the Order of Operations to simplify an expression
- Apply the Distributive Property

Lesson 2: Review of Solving Equations (two-day lesson)

Objectives:
- Solve one-step and two-step equations
- Solve equations with variables on both sides
Lesson 3: Review of Linear Functions (two-day lesson)

Objectives:
• Graph linear equations

Lesson 4: Review of Graphing and Systems of Equations (two-day lesson)

Objectives:
• Graph functions using the slope-intercept form
• Solve systems of equations by graphing
• Solve systems of equations by substitution
• Solve systems of equations by elimination

Lesson 5: Review of Algebra 1 A Quiz

Unit 3: Exponents and Exponential Functions

In this unit, you will learn about expressions involving exponents in several forms. These lessons include topics on zero and negative exponents, scientific notation, and a variety of lessons on different forms of simplifying problems with exponents. You will evaluate exponential functions and use them to solve real problems of exponential growth and decay.

Objectives:
• Learn to write numbers in scientific notation
• Define and use zero and negative exponents
• Learn the rules for multiplying powers
• Learn the rules for dividing powers
• Use exponential functions to show growth or decay

Lesson 1: Zero and Negative Exponents (two-day lesson)

Objectives:
• Simplify expressions involving zero and negative exponents

Lesson 2: Scientific Notation (two-day lesson)

Objectives:
• Write numbers in scientific and standard notation
• Compare and order numbers using standard notation

Lesson 3: Multiplying Powers with the Same Base (two-day lesson)

Objectives:
• Multiply powers with the same base

Lesson 4: More Multiplication Properties of Exponents (two-day lesson)

Objectives:
• Raise a power to a power
• Raise a product to a power

Lesson 5: Mid-Unit Review (two-day lesson)

Objectives:
• Review the concepts covered so far in the Exponents and Exponential Functions unit
• Determine which skills need further review and practice before proceeding to the next lesson
Lesson 6: Division Properties of Exponents (two-day lesson)

Objectives:
- Divide powers with the same base
- Raise a quotient to a power

Lesson 7: Exponential Functions (three-day lesson)

Objectives:
- Evaluate and graph exponential functions

Lesson 8: Exponential Growth and Decay (three-day lesson)

Objectives:
- Model exponential interest

Lesson 9: Exponents and Exponential Functions Unit Review (three-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your test
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on the test

Lesson 10: Exponents and Exponential Functions Unit Test

Unit 4: Polynomials and Factoring

In this unit, you will learn how to classify, add, and subtract polynomials. You will also learn to multiply polynomials and monomials and how to factor polynomials using GCF, Greatest Common Factor, as well as how to factor higher-degree polynomials. In addition, you will learn how to find the squares of a binomial, the sum and difference of perfect squares, and the product of a sum and difference.

Objectives:
- Classify, add, and subtract polynomials
- Multiply a monomial by a polynomial
- Factor a monomial from a polynomial
- Multiply two binomials or a binomial by a trinomial
- Factor trinomials including special cases

Lesson 1: Adding and Subtracting Polynomials (three-day lesson)

Objectives:
- Classify, add, and subtract polynomials

Lesson 2: Multiplying and Factoring Polynomials (three-day lesson)

Objectives:
- Multiply a monomial by a polynomial
- Factor a monomial from a polynomial

Lesson 3: Multiplying Binomials (three-day lesson)

Objectives:
- Multiply two binomials or a binomial by a trinomial
Lesson 4: Multiplying Special Cases (three-day lesson)

Objectives:
• Find a square of a binomial
• Find the product of a sum and a difference

Lesson 5: Mid-Unit Review (two-day lesson)

Objectives:
• To review the concepts covered so far in Unit 2, lessons 1–4
• To determine which skills need further review and practice before proceeding to the next lesson

Lesson 6: Factoring $x^2 + bx + c$ (three-day lesson)

Objectives:
• Factor trinomials in the form $x^2 + bx + c$

Lesson 7: Factoring $ax^2 + bx + c$ (three-day lesson)

Objectives:
• Factor trinomials of the form $ax^2 + bx + c$

Lesson 8: Factoring Special Cases (three-day lesson)

Objectives:
• Factor perfect-square trinomials and the differences of two squares

Lesson 9: Polynomials and Factoring Unit Review (two-day lesson)

Objectives:
• Decide which strategies you will use to prepare for your test
• Organize your time and study materials
• Review your notes, Key Words, formulas, and all important concepts that may be covered on this test

Lesson 10: Polynomials and Factoring Unit Test

Unit 5: Semester Review and Exam

In this unit, you will have the opportunity to prepare for and take the semester exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Lesson 1: Algebra 1B, Part 1 Review (two-day lesson)

Objectives:
• Decide which strategies you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, key words and vocabulary terms, formulas, and all important concepts that may be covered on this exam

Lesson 2: Semester Exam
ALGEBRA 1 B, PART 2
**Algebra 1 B, Part 2**

This course includes the second half of the Algebra 1 B course content. In this course, the student will perform operations with radical expressions, graph square root functions, and explore trigonometric ratios. The student will solve both radical and rational equations and explore the graphs of rational functions. Finally, the student will be introduced to statistics and learn how to organize and display data. Lastly, the student will solve problems involving probability.

There are many opportunities for review and reflection in the course and the student is encouraged to monitor progress with the course content. Throughout the course, problem solving, critical thinking, and real-world application of mathematical concepts will be required.

**Unit 1: Quadratic Functions and Equations**

In this unit, you will learn how to work with quadratic functions and quadratic equation. You will learn to graph quadratic functions in several forms and solve both quadratic equations and functions. You will also learn to choose between different models to display data, and finally, you will learn to solve systems of linear and quadratic equations. These topics are important foundational skills for your study of higher-level mathematics.

Objectives:
- Graph quadratic functions of the form \( y = ax^2 \) and \( y = ax^2 + c \)
- Graph functions of the form \( y = ax^2 + bx + c \)
- Solve quadratic equations by graphing and using square roots and by factoring
- Solve quadratic equations by completing the square and by using the quadratic formula
- Choose a linear, quadratic, or exponential model for data and solve systems of linear and quadratic equations

**Lesson 1: Quadratic Graphs and Their Properties (two-day lesson)**

Objectives:
- Graph quadratic functions of the form \( y = ax^2 \) and \( y = ax^2 + c \)

**Lesson 2: Quadratic Functions (two-day lesson)**

Objectives:
- Graph quadratic functions of the form \( y = ax^2 + bx + c \)

**Lesson 3: Solving Quadratic Equations (two-day lesson)**

Objectives:
- Solve quadratic equations by graphing and using square roots

**Lesson 4: Factoring to Solve Quadratic Equations (two-day lesson)**

Objectives:
- Solve quadratic equations by factoring

**Lesson 5: Mid-Unit Review (two-day lesson)**

Objectives:
- Review the concepts covered so far in this unit
- Determine which skills need further review and practice before proceeding to the next lesson

**Lesson 6: Completing the Square (two-day lesson)**

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Lesson 7: The Quadratic Formula and the Discriminant (two-day lesson)

Objectives:
• Solve quadratic equations by using the quadratic formula

Lesson 8: Linear, Quadratic, and Exponential Models (two-day lesson)

Objectives:
• Choose a linear, quadratic, or exponential model for data

Lesson 9: Systems of Linear and Quadratic Equations (two-day lesson)

Objectives:
• Solve systems of linear and quadratic equations

Lesson 10: Quadratic Functions and Equations Unit Review (two-day lesson)

Objectives:
• Decide which strategies you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 11: Quadratic Functions and Equations Unit Test

Unit 2: Radical Expressions and Data Analysis

In this unit, you will work with radical expressions and learn various ways to analyze data. First, you will learn to simplify radicals and perform operations on radical expressions. You will learn to analyze square root functions by graphing them. Finally, you will learn to analyze data both graphically and numerically through the use of histograms, box-and-whisker plots, and measures of central tendency and dispersion.

Objectives:
• Simplify radicals involving products and quotients
• Simplify sums and differences of radical expressions
• Simplify products and quotients of radical expressions
• Find the mean, median, mode, and range of a data set
• Make and interpret box-and-whisker plots

Lesson 1: Simplifying Radicals (two-day lesson)

Objectives:
• Simplify radicals involving products and quotients

Lesson 2: Operations with Radical Expressions (two-day lesson)

Objectives:
• Simply sums and differences of radical expressions
• Simplify products and quotients of radical expressions
Lesson 3: Graphing Square Root Functions (two-day lesson)

Objectives:
- Graph square root functions
- Translate graphs of square root functions

Lesson 4: Mid-Unit Review (two-day lesson)

Objectives:
- Review the concepts covered so far in this unit.
- Determine which skills need further review and practice before proceeding to the next lesson.

Lesson 5: Frequency and Histograms (three-day lesson)

Objectives:
- Make and interpret frequency tables and histograms

Lesson 6: Measures of Central Tendency and Dispersion (three-day lesson)

Objectives:
- Find mean, median, mode, and range

Lesson 7: Box-and-Whisker Plots (three-day lesson)

Objectives:
- Find quartiles and percents
- Make and interpret box-and-whisker plots

Lesson 8: Radical Expressions and Data Analysis Unit Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

Lesson 9: Radical Expressions and Equations Test

Unit 3: Rational Expressions and Functions

In this unit, you will work with rational expressions and equations. To begin, you will learn to simplify rational expressions. Then you will learn to multiply and divide rational expressions and polynomials. You will also learn to simplify complex fractions. You will learn to define and recognize inverse variations and compare direct and inverse variations.

Objectives:
- Simplify rational expressions
- Multiply and divide rational expressions
- Add and subtract rational expressions
- Define and identify inverse variation

Lesson 1: Simplifying Rational Expressions (two-day lesson)
• Simplify rational expressions

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Lesson 2: Multiplying and Dividing Rational Expressions (two-day lesson)

Objectives:
• Multiply and divide rational expressions
• Simplify complex fractions

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Lesson 3: Dividing Polynomials (two-day lesson)

Objectives:
• Divide polynomials

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Lesson 4: Adding and Subtracting Rational Expressions (two-day lesson)

Objectives:
• Add and subtract rational expressions

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Lesson 5: Mid-Unit Review (two-day lesson)

Objectives:
• Review the concepts covered so far in this unit
• Determine skills that need further review and practice these skills before proceeding to the next lesson

Lesson 6: Solving Rational Equations (three-day lesson)

Objectives:
• Solve rational equations and proportions

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Lesson 7: Inverse Variation (two-day lesson)

Objectives:
• Write and graph equations for inverse operations
• Compare direct and inverse variations

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Lesson 8: Rational Expressions and Functions Unit Review (two-day lesson)

Objectives:
• Decide which strategies you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, Key Words, formulas, and all important concepts that may be covered on this exam

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Lesson 9: Rational Expressions and Functions Unit Test

Unit 4: Semester Review and Exam

In this unit, you will have the opportunity to prepare for and take the semester exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.
Lesson 1: Algebra 1 B, Part 2 Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, key words and vocabulary terms, formulas, and all important concepts that may be covered on this exam

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Lesson 2: Algebra 1 B, Part 2 Exam
ALGEBRA 2 A
Algebra 2 A

In this first semester of Algebra 2, the student will review and expand on her learning from Algebra 1. The beginning units will focus mostly on the equation and the inequality. The student will write, solve, and graph these in a variety of real-world scenarios. The last few units will focus on types of functions. The student will continue her study of quadratic functions from Algebra 1, but will expand this to include exponential and logarithmic functions. As before, the student will write, solve, and graph these functions. Use of a graphing calculator is encouraged.

Unit 1: Focus on Success in Algebra 2

In this unit, you will focus on ways to think about success in Algebra 2. You will learn how to set personal goals, establish study strategies that reduce anxiety, and review ways to be an active learner. The goal of this unit is to help you establish a positive mindset at the start of the course. This includes understanding how effort impacts goal obtainment, appreciating the importance of taking initiative with learning, and embracing the many resources available to help you throughout the course, such as your fellow students, your teacher, online tools, and your Learning Coach.

Objectives:

• Use strategies such as self-assessment and reflection in order to improve mathematical performance
• Distinguish between effort-based and ability-based models of learning
• Assess personal readiness for study and learning
• Use resources to assist with goal-setting and attainment

Lesson 1: Get in Shape for Algebra 2

Objectives:

• Examine organizational skills and learning strategies
• Set goals in the context of mathematical learning
• Reflect on strengths, weaknesses, and the value of goal-setting
• Distinguish between effort-based and ability-based models of learning

Lesson 2: Resources for Success

Objectives:

• Identify the various resources that can be used to promote active learning
• Discuss strategies for using resources effectively

Unit 2: Expressions, Equations, and Inequalities

In this unit, you will explore algebraic expressions, equations, and inequalities, including how to model and solve real-world applications using these concepts. Some of these concepts, such as those involved in simplifying algebraic expressions and solving equations, are a review from previous math courses, and other concepts, such as those concerned with writing and solving equations and inequalities involving absolute value, are new for this course. The concepts presented in this unit will be used throughout this course, as they are the basics of Algebra 2.

Objectives:

• Use variables to represent unknown quantities in order to identify and use patterns to solve problems
• Represent quantities with algebraic expressions and use properties to manipulate and evaluate algebraic expressions
• Use properties to solve equations and inequalities, including compound inequalities and those involving absolute value
• Write, graph, and use equations and inequalities to model and solve problems

Lesson 1: Patterns and Expressions

Objectives:

• Identify and describe patterns
• Make predictions based on patterns

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Lesson 2: Properties of Real Numbers

Objectives:
- Identify and use properties of real numbers
- Write numerical expressions in different forms
- Plot real numbers on a number line

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Lesson 3: Algebraic Expressions

Objectives:
- Rewrite algebraic expressions
- Solve algebraic expressions
- Model situations using algebraic expressions

Lesson 4: Solving Equations (two-day lesson)

Objectives:
- Solve multi-step equations
- Write and use equations to solve problems
- Rewrite and solve literal equations

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Lesson 5: Solving Inequalities (two-day lesson)

Objectives:
- Solve and graph inequalities
- Write and solve compound inequalities

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Lesson 6: Absolute Value Equations and Inequalities (two-day lesson)

Objectives:
- Write and solve equations and inequalities involving absolute value

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Lesson 7: Expressions, Equations, and Inequalities Review (two-day lesson)

Objectives:
- Use variables to model real-world situations
- Use the properties of real numbers to simplify and evaluate algebraic expressions
- Solve an equation or inequality, including absolute value and compound inequalities
- Review concepts in order to prepare for the unit test

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Lesson 8: Expressions, Equations, and Inequalities Unit Test

Unit 3: Functions, Equations, and Graphs

In this unit, you will expand your knowledge of equations by exploring relations that can be represented by special equations, called functions. Direct variation, linear, and absolute value functions and their graphs will be used to solve a variety of problems. In addition, you will learn the different forms in which a linear equation can be written as well as identify transformations of functions, such as vertical and horizontal translations, reflection, stretching, and compressing.

Objectives:
- Identify and graph relations and functions, including direct variation and absolute value
- Model real-world data and make predictions using linear equations
• Identify and graph transformations of functions
• Graph two-variable inequalities, including absolute value inequalities
• Use functions and inequalities to model and solve real-world problems

**Lesson 1: Relations and Functions (two-day lesson)**

Objectives:
• Graph relations in the coordinate plane
• Determine if relation is a function
• Write and use functions to solve problems

**Lesson 2: Direct Variation**

Objectives:
• Create and summarize direct variation equations
• Graph direct variation equations

**Lesson 3: Linear Functions and Slope Intercept**

Objectives:
• Create the graph of a linear equation
• Derive the equation of a line from its graph
• Interpret key features of graphs of linear functions

**Lesson 4: More About Linear Equations**

Objectives:
• Derive the equation of a line given its slope and a point on the line
• Write an equation of a line given two points on the line
• Write the equation of a line in different forms

**Lesson 5: Families of Functions (two-day lesson)**

Objectives:
• Analyze transformations of functions

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**Lesson 6: Two-Variable Inequalities**

Objectives:
• Graph two-variable inequalities

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**Lesson 7: Functions, Equations, and Graphs Unit Review (two-day lesson)**

Objectives:
• Review concepts in order to prepare for the unit test

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**Lesson 8: Functions, Equations, and Graphs Unit Test**

**Unit 4: Linear Systems**

In this unit, you will learn about linear systems and how to use them to solve problems that come up in real situations. Throughout the unit, you will explore the different methods for solving systems, such as using tables, graphs, or matrices, and the different ways in which a system can be solved algebraically. Linear programming will be used to solve real-world problems, such as ones involving maximizing profit.

Objectives:
• Write, solve, and use systems of linear equations to solve problems
• Write, solve, and use systems of linear inequalities to solve problems
• Use linear programming to model and solve real-world problems
• Solve systems in three variables using elimination, substitution, and matrices
Lesson 1: Solving Systems Using Tables and Graphs

Objectives:
- Solve a linear system of equations by using a graph or a table of values
- Write and use a linear system to solve problems

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Lesson 2: Solving Systems Algebraically

Objectives:
- Solve a linear system of equations using algebra
- Write and use a linear system to solve problems

Lesson 3: Systems of Inequalities (two-day lesson)

Objectives:
- Solve a system of linear inequalities by graphing
- Use systems of linear inequalities to model situations

Lesson 4: Linear Programming (two-day lesson)

Objectives:
- Solve problems using linear programming

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Lesson 5: Systems With Three Variables (two-day lesson)

Objectives:
- Solve systems in three variables using elimination
- Solve systems in three variables using substitution

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Lesson 6: Solving Systems Using Matrices (two-day lesson)

Objectives:
- Represent a system of linear equations with a matrix
- Solve a system of linear equations using matrices

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Lesson 7: Linear Systems Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

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Lesson 8: Linear Systems Unit Test

Unit 5: Quadratic Functions and Equations

In this unit, you will explore quadratic equations and functions. You will see that when a quadratic equation is graphed, it forms a particular type of curve called a parabola. Some real-world situations can be modeled by parabolas—for example, the path a baseball makes when thrown up in the air. You will learn how to use multiple methods for solving quadratic equations including graphing, factoring, and applying the quadratic formula. Lastly, you will explore the set of complex numbers and quadratic systems.

Objectives:
- Identify and graph quadratic functions and transformations
- Model and interpret real-world problems using quadratic equations
- Write and solve quadratic equations by graphing, factoring, and applying the quadratic formula
- Identify, graph, and solve quadratic equations with complex solutions
- Solve and graph systems of linear and quadratic equations and inequalities
Lesson 1: Quadratic Functions and Transformations (two-day lesson)

Objectives:
- Identify quadratic functions
- Graph quadratic functions
- Write and use quadratic functions to solve problems
- Graph translations of quadratic functions

Lesson 2: Standard Form of a Quadratic Function

Objectives:
- Graph quadratic functions
- Write and use quadratic functions to solve problems

Lesson 3: Modeling with Quadratic Functions

Objectives:
- Use quadratic functions to model data sets
- Interpret the domain of a function and relate the domain to its graph

Lesson 4: Factoring Quadratic Expressions

Objectives:
- Find common and binomial factors of quadratic expressions
- Factor special quadratic expressions

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Lesson 5: Quadratic Equations

Objectives:
- Solve quadratic equations by graphing and factoring
- Write and use quadratic equations to solve problems

Lesson 6: The Quadratic Formula

Objectives:
- Solve quadratic equations using the quadratic formula
- Determine the number of solutions by using the discriminant

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Lesson 7: Complex Numbers (two-day lesson)

Objectives:
- Identify, graph, and perform operations with complex numbers
- Find complex number solutions of quadratic equations

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Lesson 8: Quadratic Systems (two-day lesson)

Objectives:
- Solve and graph systems of linear and quadratic equations
- Solve and graph systems of quadratic inequalities

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Lesson 9: Quadratic Functions and Equations Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 10: Quadratic Functions and Equations Unit Test

Unit 6: Polynomials and Polynomial Functions
Previously, you explored a specific type of polynomial, a quadratic polynomial. In this unit, you will explore a variety of polynomials, including monomials, binomials, and trinomials. You will learn how to identify and describe the properties of polynomials equations based on the powers of the variable terms they contain. In addition, you will learn methods to identify and represent factors, zeros, and x-intercepts of polynomial functions. You will identify the features of polynomial functions and their graphs and use them to model real-world situations such as maximizing the volume of a box and representing energy with power functions. You will also be introduced to methods and theorems that you will apply to solve polynomial equations.

Objectives:
- Identify the number of zeros and degree of a polynomial equation
- Find zeros of a polynomial equation by factoring or graphing and finding x-intercepts
- Write and use polynomial functions to solve problems

Lesson 1: Polynomial Functions

Objectives:
- Classify polynomials by degree and number of terms
- Graph polynomial functions
- Describe the end behavior of the graph of a polynomial function
- Use polynomial expressions to model situations

Lesson 2: Polynomials, Linear Factors, and Zeroes

Objectives:
- Factor polynomial expressions
- Derive a polynomial function from its zeroes
- Interpret features of the graphs of polynomial functions

Lesson 3: Solving Polynomial Equations

Objectives:
- Solve polynomial equations by factoring
- Solve polynomial equations by graphing

Lesson 4: Dividing Polynomials (two-day lesson)

Objectives:
- Divide polynomials using long division
- Divide polynomials using synthetic division

Lesson 5: Theorems About Roots of Polynomial Equations

Objectives:
- Solve polynomial equations using the Rational Root and Conjugate Root Theorems
- Solve quadratic equations that have complex solutions
- Rewrite complex numbers using polynomial identities

Lesson 6: The Fundamental Theorem of Algebra

Objectives:
- Use the Fundamental Theorem of Algebra to solve polynomial equations with complex numbers

Lesson 7: The Binomial Theorem (two-day lesson)

Objectives:
- Expand a binomial using Pascal's Triangle
- Apply the Binomial Theorem
Lesson 8: The Polynomial Models in the Real World (two-day lesson)

Objectives:
- Fit data to linear, quadratic, cubic, or quartic models

Lesson 9: Transforming Polynomial Functions (two-day lesson)

Objectives:
- Transform graphs of polynomials
- Find zeroes of a transformed polynomial function

Lesson 10: Polynomials and Polynomial Functions Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 11: Polynomials and Polynomial Functions Unit Test

Unit 7: Exponential and Logarithmic Functions

In this unit, you will explore two more types of functions, exponential and logarithmic. You will use exponential functions to model real-world situations and solve real-world problems, including problems involving interest and population growth or decay. You will also learn how using logarithms can help you solve exponential equations. Finally, you will learn to graph both exponential and logarithmic functions.

Objectives:
- Model situations using exponential functions
- Solve logarithmic equations using exponents
- Solve exponential equations using logarithms
- Graph exponential and logarithmic functions

Lesson 1: Exploring Exponential Models (two-day lesson)

Objectives:
- Identify exponential growth and decay functions
- Write exponential functions to solve problems
- Use exponential growth and decay functions to model situations

Lesson 2: Properties of Exponential Functions (two-day lesson)

Objectives:
- Explore the properties of exponential functions
- Graph exponential functions, including those that have base e
- Use exponential functions to solve problems

Lesson 3: Logarithmic Functions as Inverses (two-day lesson)

Objectives:
- Write and solve logarithmic expressions
- Draw the graph of a logarithmic function
- Use logarithmic functions and their inverses to solve problems

Lesson 4: Properties of Logarithms (two-day lesson)

Objectives:
- Use the properties of logarithms

Lesson 5: Exponential and Logarithmic Equations (two-day lesson)

Objectives:
- Solve exponential and logarithmic equations
Lesson 6: Natural Logarithms

Objectives:
- Evaluate and simplify natural logarithmic expressions
- Solve equations using natural logarithms

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Lesson 7: Exponential and Logarithmic Functions Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 8: Exponential and Logarithmic Functions Unit Test

Unit 8: Semester A Review and Exam

In this unit, you will review concepts from Semester A in order to prepare for the semester exam, which you will take at the end of this unit.

Objectives:
- To review concepts in order to prepare for the semester exam

Lesson 1: Semester A Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the semester exam

Lesson 2: Semester A Exam
ALGEBRA 2 A, PART 1
Algebra 2 A, Part 1

In this first semester of Algebra 2 A, the student will review and expand on learning from previous math and algebra courses. This course will move at a slower pace than other Algebra 2 courses, and there will be a greater emphasis placed on instructional support. The units of this semester will focus mostly on the equation and the inequality; the student will write, solve, and graph these in a variety of real-world scenarios.

Unit 1: Focus on Success in Algebra 2

In this unit, you will focus on ways to think about success in Algebra 2. You will learn how to set personal goals, establish study strategies that reduce anxiety, and review ways to be an active learner. The goal of this unit is to help you establish a positive mindset at the start of the course. This includes understanding how effort impacts goal obtainment, appreciating the importance of taking initiative with learning, and embracing the many resources available to help you throughout the course, such as your fellow students, your teacher, online tools, and your Learning Coach.

Objectives:
• Use strategies such as self-assessment and reflection in order to improve mathematical performance
• Distinguish between effort-based and ability-based models of learning
• Assess personal readiness for study and learning
• Use resources to assist with goal-setting and attainment

Lesson 1: Get in Shape for Algebra 2

Objectives:
• Examine organizational skills and learning strategies
• Set goals in the context of mathematical learning
• Reflect on strengths, weaknesses, and the value of goal-setting
• Distinguish between effort-based and ability-based models of learning

Lesson 2: Resources for Success

Objectives:
• Identify the various resources that can be used to promote active learning
• Discuss strategies for using resources effectively

Unit 2: Expressions, Equations, and Inequalities

In this unit, you will explore algebraic expressions, equations, and inequalities, including how to model and solve real-world applications using these concepts. Some of these concepts, such as those involved in simplifying algebraic expressions and solving equations, are a review from previous math courses, and other concepts, such as those concerned with writing and solving equations and inequalities involving absolute value, are new for this course. The concepts presented in this unit will be used throughout this course, as they are the basics of Algebra 2.

Objectives:
• Use variables to represent unknown quantities in order to identify and use patterns to solve problems
• Represent quantities with algebraic expressions and use properties to manipulate and evaluate algebraic expressions
• Use properties to solve equations and inequalities, including compound inequalities and those involving absolute value
• Write, graph, and use equations and inequalities to model and solve problems

Lesson 1: Patterns and Expressions

Objectives:
• Identify and describe patterns
• Make predictions based on patterns

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Lesson 2: Properties of Real Numbers

Objectives:
• Identify and use properties of real numbers
• Write numerical expressions in different forms
• Plot real numbers on a number line

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Lesson 3: Algebraic Expressions (two-day lesson)

Objectives:
• Evaluate algebraic expressions
• Simplify algebraic expressions
• Model situations using algebraic expressions

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Lesson 4: Solving Equations (two-day lesson)

Objectives:
• Solve multi-step equations
• Write and use equations to solve problems
• Rewriting and solving literal equations

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Lesson 5: Mid-Unit Review

Objectives:
• Identify and use patterns to make predictions
• Identify and use the properties of real numbers to simplify and evaluate algebraic expressions
• Evaluate, simplify, and use algebraic expressions to model situations
• Write and use equations to solve problems
• Review material from each lesson that you have completed so far

Lesson 6: Solving Inequalities

Objectives:
• Solve and graph inequalities
• Write and solve compound inequalities

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Lesson 7: Absolute Value Equations and Inequalities (two-day lesson)

Objectives:
• Write and solve equations and inequalities involving absolute value

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Lesson 8: Expressions, Equations, & Inequalities Unit Review (two-day lesson)

Objectives:
• Use variables to model real-world situations
• Use the properties of real numbers to simplify and evaluate algebraic expressions
• Solve an equation or inequality, including absolute value and compound inequalities
• Review concepts in order to prepare for the unit test

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Lesson 9: Expressions, Equations, and Inequalities Unit Test
Unit 3: Functions, Equations, and Graphs

In this unit, you will expand your knowledge of equations by exploring relations that can be represented by special equations, called functions. Direct variation, linear, and absolute value functions and their graphs will be used to solve a variety of problems. In addition, you will learn the different forms in which a linear equation can be written as well as identify transformations of functions, such as vertical and horizontal translations, reflection, stretching, and compressing.

Objectives:
- Identify and graph relations and functions, including direct variation and absolute value
- Model real-world data and make predictions using linear equations
- Identify and graph transformations of functions
- Graph two-variable inequalities, including absolute value inequalities
- Use functions and inequalities to model and solve real-world problems

Lesson 1: Relations and Functions (two-day lesson)

Objectives:
- Graph relations
- Identify functions
- Write and use functions to solve problems

Lesson 2: Direct Variation

Objectives:
- Write and interpret direct variation
- Graph direct variation equations

Lesson 3: Linear Functions and Slope-Intercept

Objectives:
- Graph linear equations
- Write equations of lines
- Interpret key features of graphs of linear functions

Lesson 4: More About Linear Equations (two-day lesson)

Objectives:
- Write an equation of a line given its slope and a point on the line
- Write an equation of a line given two points on the line
- Write the equation of a line in different forms

Lesson 5: Mid-Unit Review

Objectives:
- Graph relations
- Identify functions
- Write and use functions to solve problems
- Write and interpret direct variation
- Graph direct variation equations
- Graph linear equations
- Write equations of lines

Lesson 6: Families of Functions (two-day lesson)

Objectives:
- Analyze transformations of functions

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Lesson 7: Two-Variable Inequalities (two-day lesson)

Objectives:
- Graph two-variable inequalities

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Lesson 8: Functions, Equations, and Graphs Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

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Lesson 9: Functions, Equations, and Graphs Unit Test

Unit 4: Linear Systems

In this unit, you will learn about linear systems and how to use them to solve problems that come up in real situations. Throughout the unit, you will explore the different methods for solving systems, such as using tables, graphs, or matrices, and the different ways in which a system can be solved algebraically. Linear programming will be used to solve real-world problems, such as those involving maximizing profit.

Objectives:
- Write, solve, and use systems of linear equations to solve problems
- Write, solve, and use systems of linear inequalities to solve problems
- Use linear programming to model and solve real-world problems
- Solve systems in three variables using elimination, substitution, and matrices

Lesson 1: Solving Systems Using Tables and Graphs

Objectives:
- Solve a linear system using a graph or a table
- Write and use a linear system to solve problems

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Lesson 2: Solving Systems Algebraically (two-day lesson)

Objectives:
- Solve linear systems algebraically
- Write and use a linear system to solve problems

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Lesson 3: Systems of Inequalities (two-day lesson)

Objectives:
- Solve systems of linear inequalities
- Use systems of linear inequalities to model situations

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Lesson 4: Mid-Unit Review

Objectives:
- Solve systems in three variables using elimination and substitution
- Write, solve, and use systems of linear inequalities to solve problems
- Write, solve, and use systems of linear equations to solve problems

Lesson 5: Linear Programming (two-day lesson)

Objectives:
- Solve problems using linear programming

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Lesson 6: Systems With Three Variables (two-day lesson)

Objectives:
- Solve systems in three variables using elimination
- Solve systems in three variables using substitution

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Lesson 7: Solving Systems Using Matrices (two-day lesson)

Objectives:
- Represent a system of linear equations with a matrix
- Solve a system of linear equations using matrices

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Lesson 8: Linear Systems Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 9: Linear Systems Unit Test

Unit 5: Quadratic Functions and Equations

In this unit, you will explore quadratic equations and functions. You will see that when a quadratic equation is graphed, it forms a particular type of curve called a parabola. Some real-world situations can be modeled by parabolas—for example, the path a baseball makes when thrown up in the air. You will learn how to use multiple methods for solving quadratic equations including graphing, factoring, and applying the quadratic formula. You will also explore the set of complex numbers and quadratic systems.

Objectives:
- Identify and graph quadratic functions and transformations
- Model and interpret real-world problems using quadratic equations
- Write and solve quadratic equations by graphing, factoring, and using the quadratic formula
- Identify, graph, and solve quadratic equations with complex solutions
- Solve and graph systems of linear and quadratic equations and inequalities

Lesson 1: Quadratic Functions and Transformations (two-day lesson)

Objectives:
- Identify and graph quadratic functions
- Write and use quadratic functions to solve problems
- Graph translations of quadratic functions

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Lesson 2: Standard Form of a Quadratic Function

Objectives:
- Graph quadratic functions written in standard form
- Write and use quadratic functions to solve problems

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Lesson 3: Modeling with Quadratic Functions (two-day lesson)

Objectives:
- Model data with quadratic functions
- Interpret the domain of a function and relate the domain to its graph

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Lesson 4: Factoring Quadratic Expressions with a = 1 (two-day lesson)

Objectives:
Lesson 5: Factoring Quadratic Expressions (two-day lesson)

Objectives:
- Find common and binomial factors of quadratic expressions
- Factor special quadratic expressions

Lesson 6: Mid-Unit Review

Objectives:
- Identify and graph quadratic functions and transformations
- Model and interpret real-world problems using quadratic equations
- Write and solve quadratic equations by graphing and factoring

Lesson 7: Quadratic Equations (two-day lesson)

Objectives:
- Solve quadratic equations by factoring
- Solve quadratic equations by graphing
- Write and use quadratic equations to solve problems

Lesson 8: The Quadratic Formula (two-day lesson)

Objectives:
- Solve quadratic equations using the quadratic formula
- Determine the number of solutions by using the discriminant

Lesson 9: Complex Numbers (two-day lesson)

Objectives:
- Identify, graph, and perform operations with complex numbers
- Find complex number solutions of quadratic equations

Lesson 10: Quadratic Systems (two-day lesson)

Objectives:
- Solve and graph systems of linear and quadratic equations
- Solve and graph systems of quadratic inequalities

Lesson 11: Quadratic Functions and Equations Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 12: Quadratic Functions and Equations Unit Test

Unit 6: Algebra 2 A, Part 1 Semester Test

Lesson 1: Algebra 2 A, Part 1 Semester Review (two-day lesson)

Objectives:
- Review for the semester exam
- Identify areas of strength and weakness in the material
- Complete a practice assessment and analyze your results
ALGEBRA 2 A, PART 2
Algebra 2 A, Part 2

In this second semester of Algebra 2 A, the student will review and expand on learning from the previous semester. This course will move at a slower pace than other Algebra 2 courses, and there will be a greater emphasis placed on instructional support. The units of this semester will focus on types of functions. The student will continue to study quadratic and radical functions, but will expand this to include exponential and logarithmic functions. The student will write, solve, and graph these functions.

Unit 1: Polynomials and Polynomial Functions

You previously explored a specific type of polynomial, a quadratic polynomial. In this unit, you will explore a variety of polynomials, including monomials, binomials, and trinomials. You will learn how to identify and describe the properties of polynomial equations based on the powers of the variable terms they contain. In addition, you will learn methods to identify and represent factors, zeroes, and x-intercepts of polynomial functions. You will identify the features of polynomial functions and their graphs and use them to model real-world situations, such as maximizing the volume of a box and representing energy with power functions. You will also be introduced to methods and theorems that you will apply to solve polynomial equations.

Objectives:
- Identify the number of zeroes and degree of a polynomial equation
- Find zeroes of a polynomial equation by factoring or graphing and finding x-intercepts
- Write and use polynomial functions to solve problems

Lesson 1: Polynomial Functions (two-day lesson)

Objectives:
- Classify polynomials
- Graph polynomial functions and describe end behavior
- Use polynomial expressions to model situations

Lesson 2: Polynomials, Linear Factors, and Zeroes (two-day lesson)

Objectives:
- Analyze the factored form of a polynomial
- Write a polynomial function from its zeroes
- Interpret features of the graphs of polynomial functions

Lesson 3: Solving Polynomial Equations (two-day lesson)

Objectives:
- Solve polynomial equations by factoring
- Solve polynomial equations by graphing

Lesson 4: Dividing Polynomials (two-day lesson)

Objectives:
- Divide polynomials using long division
- Divide polynomials using synthetic division

Lesson 5: Mid-Unit Review

Objectives:
- Identify the number of zeroes and degree of a polynomial equation
- Find zeroes of a polynomial equation by factoring or graphing and finding x-intercepts
Lesson 6: Theorems About Roots of Polynomial Equations (two-day lesson)

Objectives:
- Solve polynomial equations using the Rational Root and Conjugate Root Theorems
- Solve quadratic equations that have complex solutions
- Rewrite complex numbers using polynomial identities

Lesson 7: The Fundamental Theorem of Algebra (two-day lesson)

Objectives:
- Use the Fundamental Theorem of Algebra to solve polynomial equations with complex numbers

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Lesson 8: The Binomial Theorem (two-day lesson)

Objectives:
- Expand a binomial using Pascal’s Triangle
- Apply the Binomial Theorem

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Lesson 9: The Polynomial Models in the Real World (two-day lesson)

Objectives:
- Fit data to linear, quadratic, cubic, or quartic models

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Lesson 10: Transforming Polynomial Functions (two-day lesson)

Objectives:
- Apply transformations to graphs of polynomials
- Find zeroes of a transformed polynomial function

Lesson 11: Polynomials and Polynomial Functions Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 12: Polynomials and Polynomial Functions Unit Test

Unit 2: Radical Functions and Rational Exponents

In this unit, you will continue to explore functions, specifically radical functions. Operations such as addition, subtraction, multiplication, and division are performed with radical expressions, which you will learn in addition to how to simplify radical expressions. You will learn that radical functions can be written using a symbol or by using exponents that are fractions. You will also explore the graphs of radical functions and their inverses. Finally, you will continue modeling real-world applications using radical functions, such as calculating voltage or circular velocity.

Objectives:
- Simplify radical expressions and solve radical equations
- Determine the domain of radical functions and find extraneous solutions
- Find and graph inverse functions

Lesson 1: Properties of Rational Exponents (two-day lesson)

Objectives:
- Simplify and rewrite expressions using properties of integer exponents.

Lesson 2: Roots and Radical Expressions (two-day lesson)
Lesson 3: Multiplying and Dividing Radical Expressions (two-day lesson)

Objectives:
- Multiply and divide radical expressions

Lesson 4: Binomial Radical Expressions (two-day lesson)

Objectives:
- Add and subtract radical equations

Lesson 5: Rational Exponents (two-day lesson)

Objectives:
- Simplify expressions with rational exponents

Lesson 6: Mid-Unit Review

Objectives:
- Simplify and rewrite expressions using properties of rational exponents
- Find nth roots
- Write radical expressions in different forms
- Multiply and divide radical expressions
- Add and subtract radical equations

Lesson 7: Solving Square Root and Other Radical Equations (two-day lesson)

Objectives:
- Solve square root and other radical equations

Lesson 8: Function Operations (two-day lesson)

Objectives:
- Add, subtract, multiply, and divide functions
- Find the composite of two functions

Lesson 9: Inverse Relations and Functions (two-day lesson)

Objectives:
- Find the inverse of a relation or function

Lesson 10: Graphing Radical Functions (two-day lesson)

Objectives:
- Graph square root and other radical functions

Lesson 11: Radical Functions & Rational Exponents Unit Review (two-day lesson)
Unit 3: Exponential and Logarithmic Functions

In this unit, you will explore two more types of functions, exponential and logarithmic. You will use exponential functions to model real-world situations and solve real-world problems, including problems involving interest and population growth or decay. You will also learn how using logarithms can help you solve exponential equations. Finally, you will learn to graph both exponential and logarithmic functions.

Objectives:
- Model situations using exponential functions
- Solve logarithmic equations using exponents
- Solve exponential equations using logarithms
- Graph exponential and logarithmic functions

Lesson 1: Exploring Exponential Models (two-day lesson)

Objectives:
- Identify exponential growth and decay functions
- Write exponential functions to solve problems
- Use exponential growth and decay functions to model situations

Lesson 2: Properties of Exponential Functions (two-day lesson)

Objectives:
- Explore the properties of functions of \( y = ab^x \)
- Graph exponential functions that have base \( e \)
- Use exponential functions to solve problems

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Lesson 3: Logarithmic Functions as Inverses (two-day lesson)

Objectives:
- Write and evaluate logarithmic expressions
- Graph logarithmic functions
- Use logarithmic functions and their inverses to solve problems

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Lesson 4: Properties of Logarithms (two-day lesson)

Objectives:
- Use the properties of logarithms

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Lesson 5: Mid-Unit Review

Objectives:
- Identify exponential growth and decay functions
- Write exponential functions to solve problems
- Use exponential growth and decay functions to model situations
- Graph exponential and logarithmic functions
- Use exponential functions to solve problems
- Write and evaluate logarithmic expressions
- Use the properties of logarithms

Lesson 6: Exponential and Logarithmic Equations (two-day lesson)

Objectives:
- Solve exponential and logarithmic equations

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Lesson 7: Natural Logarithms (two-day lesson)

Objectives:
- Evaluate and simplify natural logarithmic expressions
- Solve equations using natural logarithms

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Lesson 8: Exponential and Logarithmic Functions Unit Review (three-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 9: Exponential and Logarithmic Functions Unit Test

Unit 4: Semester A Review and Exam

In this unit, you will review concepts from Semester A in order to prepare for the semester exam, which you will take at the end of this unit.

Objectives:
- To review concepts in order to prepare for the semester exam

Lesson 1: Algebra 2 A, Part 2 Semester Review (two-day lesson)

Objectives:
- Review for the semester exam
- Identify areas of strength and weakness in the material
- Complete a practice assessment and analyze your results

Lesson 2: Algebra 2 A, Part 2 Semester Exam
ALGEBRA 2 B
Algebra 2 B

In this second semester of Algebra 2, the student will strengthen his algebraic problem-solving abilities and deepen an understanding of mathematics. The student will, among other things, explore operations, graphs, and real-world applications related to both radical and rational functions, observe different types of geometric and arithmetic patterns, examine graphs and equations of conic sections, and calculate probabilities. The course will conclude with an introduction to trigonometry and its associated functions.

Unit 1: Review of Algebra 2 A

In this unit, you will review the major concepts from Algebra 2 A that are applicable to Algebra 2 B. These include working with linear systems of equations, quadratic functions, exponential and logarithmic functions, as well as polynomials and polynomial functions.

Objectives:
- Review expressions, equations, and inequalities
- Review linear systems
- Review quadratic functions and equations
- Review polynomials and polynomial functions
- Review exponential and logarithmic functions

Lesson 1: Review of Expressions, Equations, and Inequalities

Objectives:
- Review evaluating expressions
- Review solving linear equations
- Review solving inequalities in one variable

Lesson 2: Review of Linear Systems

Objectives:
- Review systems of linear equations
- Review systems of linear inequalities

Lesson 3: Review of Quadratic Functions and Equations

Objectives:
- Review graphing quadratic functions
- Review solving quadratic equations by factoring
- Review solving quadratic equations using the quadratic formula
- Review using the discriminant to determine the number of solutions to a quadratic equation

Lesson 4: Review of Polynomials and Polynomial Functions

Objectives:
- Review the definition of a polynomial
- Review factoring polynomials
- Review solving polynomial equations

Lesson 5: Review of Exponential and Logarithmic Functions

Objectives:
- Review exponential functions
- Review logarithmic functions

Unit 2: Radical Functions and Rational Exponents

In this unit, you will continue to explore functions, specifically radical functions. Operations such as addition, subtraction, multiplication, and division are performed with radical expressions which you will learn in addition to how to simplify radical expressions. You will learn that radical functions can be written using a symbol or by using exponents that are fractions. You will also explore the graphs of radical functions and their inverses. Finally, you will continue modeling real-world applications using radical functions, such as calculating voltage or circular velocity.

Objectives:
- To simplify radical expressions and solve radical equations
To determine the domain of radical functions and find extraneous solutions
To find and graph inverse functions

Lesson 1: Roots and Radical Expressions
Objectives:
- Find nth roots of numbers and expressions
- Write radical expressions in different forms

Lesson 2: Multiplying and Dividing Radical Expressions
Objectives:
- Multiply and divide radical expressions

Lesson 3: Binomial Radical Expressions
Objectives:
- Add and subtract radical equations

Lesson 4: Rational Exponents
Objectives:
- Simplify expressions with rational exponents

Lesson 5: Solving Square Root and Other Radical Equations
Objectives:
- Solve square root and other radical equations

Lesson 6: Function Operations
Objectives:
- Add, subtract, multiply, and divide functions
- Find the composite of two functions

Lesson 7: Inverse Relations and Functions
Objectives:
- Find the inverse of a relation or function

Lesson 8: Graphing Radical Functions
Objectives:
- Graph square root and other radical functions

Lesson 9: Radical Functions and Rational Exponents Review (two-day lesson)
Objectives:
- Review concepts in order to prepare for the unit test

Lesson 10: Radical Functions and Rational Exponents Unit Test

Unit 3: Rational Functions
In this unit, you will be exploring rational functions beginning with inverse and direct variations. Next, you will have the opportunity to stretch, compress, reflect, and translate functions while exploring reciprocal functions. Finally, you will be adding and subtracting rational expressions, and then solving rational equations. These concepts will be used to solve real situations that involve two different rates, such as calculating speed while taking into account the wind.

Objectives:
- Write and graph functions to solve problems
- Write and interpret rational expressions to solve problems
- Apply skills in a variety of contexts on the unit test

**Lesson 1: Inverse Variation (two-day lesson)**

Objectives:
- Recognize and apply inverse variation to solve problems
- Apply joint and other variations to solve problems

**Lesson 2: The Reciprocal Function Family**

Objectives:
- Draw the graph of reciprocal functions
- Perform translations on the graph of reciprocal functions
- Write and graph functions to solve problems

**Lesson 3: Rational Functions and Their Graphs (two-day lesson)**

Objectives:
- Identify properties of rational functions
- Graph rational functions

**Lesson 4: Rational Expressions**

Objectives:
- Change rational expressions to simpler forms
- Divide and multiply rational expressions
- Use and interpret rational expressions to solve problems

**Lesson 5: Adding and Subtracting Rational Expressions (two-day lesson)**

Objectives:
- Add and subtract rational expressions

**Lesson 6: Solving Rational Equations (two-day lesson)**

Objectives:
- Use rational equations to solve problems

**Lesson 7: Rational Functions Unit Review (two-day lesson)**

Objectives:
- Review concepts in order to prepare for the unit test

**Lesson 8: Rational Functions Unit Test**

**Unit 4: Sequences and Series**

In this unit, you will explore different types of patterns in arithmetic and geometric sequences. You will identify mathematical patterns and create a rule to describe a pattern.
Finally, you will find the sum of an arithmetic or geometric series, or use the sum of a series to determine the number of terms.

Objectives:
- Identify mathematical patterns found in a sequence
- Identify mathematical sequences and series as arithmetic or geometric
- Apply a formula to find the nth term of an arithmetic or geometric sequence
- Write and apply recursive and expresssive rules for arithmetic and geometric sequences
- Apply a formula to find the sum of an arithmetic or geometric series

**Lesson 1: Mathematical Patterns**

Objectives:
- Identify mathematical patterns found in a sequence
- Use a formula to find the nth term of a sequence

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**Lesson 2: Arithmetic Sequences**

Objectives:
- Define, identify, and apply arithmetic sequences

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**Lesson 3: Geometric Sequences (two-day lesson)**

Objectives:
- Define, identify, and apply geometric sequences

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**Lesson 4: Arithmetic Series**

Objectives:
- Define arithmetic series and find their sums

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**Lesson 5: Geometric Series (two-day lesson)**

Objectives:
- Define geometric series and find their sums

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**Lesson 6: Sequences and Series Unit Review (two-day lesson)**

Objectives:
- Review concepts in order to prepare for the unit test

**Lesson 7: Sequences and Series Unit Test**

**Unit 5: Quadratic Relations and Conic Sections**

Different types of curves are formed when a plane and a cone intersect, depending on the angle of intersection. In this unit, you will explore these different types of conic sections, referred to as parabolas, circles, ellipses, and hyperbolas. You will learn about their graphs and equations, and how to use these conic sections to model and solve problems.

Objectives:
- Identify conic sections
- Write the equation of a circle, a parabola, an ellipse, and a hyperbola
- Graph a circle, a parabola, an ellipse, and a hyperbola
- Model and solve problems using conic sections

**Lesson 1: Exploring Conic Sections**

Objectives:
Lesson 2: Parabolas (two-day lesson)

Objectives:
- Write the equation of a parabola and graph parabolas

Lesson 3: Circles (two-day lesson)

Objectives:
- Write and graph the equation of a circle
- Find the center and radius of a circle and use them to graph the circle

Lesson 4: Ellipses (two-day lesson)

Objectives:
- Write the equation of an ellipse
- Find the foci of an ellipse
- Graph an ellipse

Lesson 5: Hyperbolas (two-day lesson)

Objectives:
- Graph hyperbolas
- Find and use the foci of a hyperbola

Lesson 6: Quadratic Relations and Conic Sections Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Unit 6: Probability and Statistics

Chances of winning a lottery, batting averages, and surveys are a few of the many places where probability and statistics appear in real-world situations. In this unit, you will explore ideas concerning the number of ways events can occur using permutations and combinations. You’ll learn which sampling methods reduce bias and provide good statistical information.

Objectives:
- Determine the number of permutations and combinations
- Find the theoretical or experimental probability of dependent, independent, and conditional events
- Calculate and apply measures of central tendency, the standard deviation, and the variance of a set of values
- Identify and evaluate sampling methods
- Apply the properties of binomial and normal distributions

Lesson 1: Permutations and Combinations

Objectives:
- Count permutations
- Count combinations
Lesson 2: Probability

Objectives:
- Find the probability of an event using theoretical, experimental, and simulation methods

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Lesson 3: Probability of Multiple Events

Objectives:
- Become familiar with several terms related to probability
- Calculate the probability of multiple events happening
- Distinguish between dependent and independent events
- Distinguish between mutually exclusive and not mutually exclusive events

Lesson 4: Conditional Probability

Objectives:
- Find conditional probabilities
- Use tables and tree diagrams to determine conditional probabilities

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Lesson 5: Analyzing Data (two-day lesson)

Objectives:
- Calculate measures of central tendency
- Draw and interpret box-and-whisker plots

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Lesson 6: Standard Deviation (two-day lesson)

Objectives:
- Find the standard deviation and variance of a set of values
- Apply standard deviation and variance

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Lesson 7: Samples and Surveys (two-day lesson)

Objectives:
- Identify and name sampling methods
- Distinguish between fair and biased survey questions and methods
- Use data from a sample survey to make estimates about the population

Lesson 8: Binomial Distributions (two-day lesson)

Objectives:
- Find binomial probabilities and use binomial distributions

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Lesson 9: Normal Distributions (two-day lesson)

Objectives:
- Use a normal distribution

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Lesson 10: Statistics Unit Review (two-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 11: Statistics Unit Test
Unit 7: Periodic Functions and Trigonometry

In this unit, you will explore periodic functions and trigonometry. The unit will begin with exploring periodic data, which represent periodic behavior such as a heartbeat or a sound wave. You will then use the unit circle, radian angle measures, and trigonometric functions, such as sine, cosine, and tangent. You will learn how to model real-world situations and solve problems using trigonometric functions. Finally, you will explore trigonometric identities and equations. Using inverse trigonometric functions and basic identities, such as reciprocal, tangent, and cotangent identities, you will be able to create and solve trigonometric equations in order to solve problems.

Objectives:
• Determine the cycle, period, and amplitude of a periodic function and relate it to positions on the unit circle
• Graph the sine, cosine, and tangent functions
• Graph the secant, cosecant, and cotangent functions
• Measure angles using radian measure
• Apply inverse trigonometric functions to solve trigonometric equations

Lesson 1: Exploring Periodic Data

Objectives:
• Identify cycles and periods of periodic functions
• Find the amplitude of periodic functions

Lesson 2: Angles and the Unit Circle

Objectives:
• Work with angles in standard position
• Find coordinates of points on the unit circle

Lesson 3: Radian Measure

Objectives:
• Use radian measure for angles
• Find the length of an arc of a circle

Lesson 4: The Sine Function

Objectives:
• Identify properties of the sine function
• Graph sine curves

Lesson 5: The Cosine Function

Objectives:
• Graph and write cosine functions
• Solve trigonometric equations

Lesson 6: The Tangent Function

Objectives:
• Graph the tangent function

Lesson 7: Reciprocal Trigonometric Functions

Objectives:
Lesson 8: Trigonometric Identities (two-day lesson)

Objectives:

- Evaluate reciprocal trigonometric functions
- Graph reciprocal trigonometric functions

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Lesson 9: Solving Trigonometric Equations Using Inverses (two-day lesson)

Objectives:

- Evaluate inverse trigonometric functions
- Solve trigonometric equations

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Lesson 10: Periodic Functions and Trigonometry Unit Review (two-day lesson)

Objectives:

- Review concepts in order to prepare for the Unit Test

Lesson 11: Periodic Functions and Trigonometry Unit Test

Unit 8: Semester B Review and Exam

In this unit, you will review concepts from semester B in order to prepare for the semester exam, which you will take at the end of this unit.

Objectives:

- Review concepts in order to prepare for the semester exam

Lesson 1: Semester B Review (two-day lesson)

Objectives:

- Review concepts in order to prepare for the semester exam

Lesson 2: Semester B Exam
ALGEBRA 2 B, PART 1
Algebra 2 B, Part 1

In this first semester of Algebra 2 B, the student will strengthen algebraic problem-solving abilities and develop a deeper understanding of mathematics. This course will move at a slower pace than other Algebra 2 courses, and there will be a greater emphasis placed on instructional support. The first unit is a review of prerequisite knowledge. The student will, among other things, explore operations, graphs, and real-world applications related to rational functions, observe different types of geometric and arithmetic patterns, explore the properties of quadratic functions, and examine graphs and equations of conic sections.

Unit 1: Review of Algebra 2 A

In this unit, you will review the major concepts from Algebra 2 A that are applicable to Algebra 2 B. These include working with linear systems of equations, quadratic functions, exponential and logarithmic functions, as well as polynomials and polynomial functions.

Objectives:
- Review expressions, equations, and inequalities
- Review linear systems
- Review quadratic functions and equations
- Review polynomials and polynomial functions
- Review exponential and logarithmic functions

Lesson 1: Review of Expressions, Equations, and Inequalities

Objectives:
- Review evaluating expressions
- Review solving linear equations
- Review solving inequalities in one variable

Lesson 2: Review of Linear Systems

Objectives:
- Review systems of linear equations
- Review systems of linear inequalities

Lesson 3: Review of Quadratic Functions and Equations

Objectives:
- Review graphing quadratic functions
- Review solving quadratic equations by factoring
- Review solving quadratic equations using the quadratic formula
- Review using the discriminant to determine the number of solutions to a quadratic equation

Lesson 4: Review of Polynomials and Polynomial Functions

Objectives:
- Review the definition of a polynomial
- Review factoring polynomials
- Review solving polynomial equations

Lesson 5: Review of Exponential and Logarithmic Functions

Objectives:
- Review exponential functions
- Review logarithmic functions

Unit 2: Rational Functions

In this unit, you will be exploring rational functions beginning with inverse and direct variations. Next, you will have the opportunity to stretch, compress, reflect, and translate functions while exploring reciprocal functions. Finally, you will be adding and subtracting rational expressions, and then solving rational equations. These concepts will be used to solve real situations that involve two different rates, such as calculating speed while taking into account the wind.

Lesson 1: Inverse Variation (two-day lesson)
Objectives:
- Recognize and apply inverse variation to solve problems
- Apply joint and other variations to solve problems

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Lesson 2: The Reciprocal Function Family (three-day lesson)

Objectives:
- Graph reciprocal functions
- Graph translations of reciprocal functions
- Write and graph functions to solve problems

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Lesson 3: Rational Functions and Their Graphs (three-day lesson)

Objectives:
- Identify properties of rational functions
- Graph rational functions

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Lesson 4: Mid-Unit Review (two-day lesson)

Objectives:
- Review the skills from the first part of the unit

Lesson 5: Rational Expressions (two-day lesson)

Objectives:
- Simplify rational expressions
- Multiply and divide rational expressions
- Use and interpret rational expressions to solve problems

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Lesson 6: Adding and Subtracting Rational Expressions (three-day lesson)

Objectives:
- Add and subtract rational expressions

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Lesson 7: Solving Rational Equations (three-day lesson)

Objectives:
- Use rational equations to solve problems

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Lesson 8: Rational Functions Unit Review (three-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 9: Rational Functions Unit Test

Unit 3: Sequences and Series

In this unit, you will explore different types of patterns in arithmetic and geometric sequences. You will identify mathematical patterns and create a rule to describe a pattern. Finally, you will find the sum of an arithmetic or geometric series, or use the sum of a series to determine the number of terms.

Objectives:
- Identify mathematical patterns found in a sequence
- Identify mathematical sequences and series as arithmetic or geometric
- Apply a formula to find the nth term of an arithmetic or geometric sequence
• Write and apply recursive and expressive rules for arithmetic and geometric sequences
• Apply a formula to find the sum of an arithmetic or geometric series

Lesson 1: Mathematical Patterns (two-day lesson)

Objectives:
• Identify mathematical patterns found in a sequence
• Use a formula to find the nth term of a sequence

Lesson 2: Arithmetic Sequences (two-day lesson)

Objectives:
• Define, identify, and apply arithmetic sequences

Lesson 3: Geometric Sequences (two-day lesson)

Objectives:
• Define, identify, and apply geometric sequences

Lesson 4: Mid-Unit Review (two-day lesson)

Objectives:
• Review the skills from the first part of the unit

Lesson 5: Arithmetic Series (two-day lesson)

Objectives:
• Define arithmetic series and find their sums

Lesson 6: Geometric Series (two-day lesson)

Objectives:
• Define geometric series and find their sums

Lesson 7: Sequences and Series Unit Review (three-day lesson)

Objectives:
• Review concepts in order to prepare for the unit test

Lesson 8: Sequences and Series Unit Test

Unit 4: Quadratic Relations and Conic Sections

Different types of curves are formed when a plane and a cone intersect, depending on the angle of intersection. In this unit, you will explore these different types of conic sections, referred to as parabolas, circles, ellipses, and hyperbolas. You will learn about their graphs and equations, and how to use these conic sections to model and solve problems.

Objectives:
• Identify conic sections
• Write the equation of a circle, a parabola, an ellipse, and a hyperbola
• Graph a circle, a parabola, an ellipse, and a hyperbola
• Model and solve problems using conic sections

Lesson 1: Exploring Conic Sections (two-day lesson)

Objectives:
• Graph and identify conic sections
Lesson 2: Parabolas (three-day lesson)

Objectives:
- Write the equation of a parabola and graph parabolas

Lesson 3: Circles (three-day lesson)

Objectives:
- Write and graph the equation of a circle
- Find the center and radius of a circle and use them to graph the circle

Lesson 4: Mid-Unit Review (two-day lesson)

Objectives:
- Review the skills from the first part of the unit

Lesson 5: Ellipses (three-day lesson)

Objectives:
- Write the equation of an ellipse
- Find the foci of an ellipse
- Graph an ellipse

Lesson 6: Hyperbolas (three-day lesson)

Objectives:
- Graph hyperbolas
- Find and use the foci of a hyperbola

Lesson 7: Quadratic Relations and Conic Sections Unit Review (three-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 8: Quadratic Relations and Conic Sections Unit Test

Unit 5: Algebra 2 B, Part 1 Semester Test

Lesson 1: Algebra 2 B, Part 1 Review (two-day lesson)

Objectives:
- Review for the semester exam
- Identify areas of strength and weakness in the material
- Complete a practice assessment and analyze your results

Lesson 2: Algebra 2 B, Part 1 Semester Exam
ALGEBRA 2 B, PART 2
Algebra 2 B, Part 2

In this second semester of Algebra 2 B, the student will strengthen algebraic problem-solving abilities and develop a deeper understanding of mathematics. This course will move at a slower pace than other Algebra 2 courses, and there will be a greater emphasis placed on instructional support. The first unit is a review of prerequisite knowledge. The student will explore probabilities and be introduced to trigonometry and its associated functions.

Unit 1: Algebra Review

This unit provides you with a solid foundation for the second part of the Algebra 2B course. In this unit, you will begin with a review of many concepts from previous math courses, including ratios and percents, geometry of triangles and circles, and graphs of rational functions.

Objectives:
- Solve mathematical problems involving ratios and percents
- Understand and apply properties of triangles, including triangle similarity
- Recognize and solve special right triangles
- Identify parts of a circle
- Graph and interpret graphs of rational functions

Lesson 1: Ratios and Percents

Objectives:
- Write ratios to represent context
- Simplify ratios
- Calculate percents

Lesson 2: Triangles Part 1

Objectives:
- Classify triangles
- Understand and apply properties of triangles, including triangle similarity

Lesson 3: Triangles Part 2

Objectives:
- Apply the Pythagorean Theorem
- Recognize and solve special right triangles

Lesson 4: Circles

Objectives:
- Identify parts of a circle
- Understand and apply relationships among parts of a circle

Lesson 5: Algebra Unit Review

Objectives:
- Review concepts from the lesson

Unit 2: Probability and Statistics

Chances of winning a lottery, batting averages, and surveys are a few of the many places where probability and statistics appear in real-world situations. In this unit, you will explore ideas concerning the number of ways events can occur using permutations and combinations. You’ll learn which sampling methods reduce bias and provide good statistical information.

Objectives:
- Determine the number of permutations and combinations
- Find the theoretical or experimental probability of dependent, independent, and conditional events
- Calculate and apply measures of central tendency, the standard deviation, and the variance of a set of values
- Identify and evaluate sampling methods
- Apply the properties of binomial and normal distributions
Lesson 1: Permutations and Combinations (two-day lesson)

Objectives:
- Count permutations
- Count combinations

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Lesson 2: Probability (two-day lesson)

Objectives:
- Find the probability of an event using theoretical, experimental, and simulation methods

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Lesson 3: Probability of Multiple Events (two-day lesson)

Objectives:
- Become familiar with several terms related to probability
- Calculate the probability of multiple events happening
- Distinguish between dependent and independent events
- Distinguish between mutually exclusive and not mutually exclusive events

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Lesson 4: Conditional Probability (three-day lesson)

Objectives:
- Find conditional probabilities
- Use tables and tree diagrams to determine conditional probabilities

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Lesson 5: Mid-Unit Review (two-day lesson)

Objectives:
- Review the skills from the first part of the unit

Lesson 6: Analyzing Data (three-day lesson)

Objectives:
- Calculate measures of central tendency
- Draw and interpret box-and-whisker plots

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Lesson 7: Standard Deviation (two-day lesson)

Objectives:
- Find the standard deviation and variance of a set of values
- Apply standard deviation and variance

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Lesson 8: Samples and Surveys (two-day lesson)

Objectives:
- Identify sampling methods
- Recognize bias in samples and surveys
- Use data from a sample survey to make estimates about the population

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Lesson 9: Binomial Distributions (two-day lesson)

Objectives:
- Find binomial probabilities and use binomial distributions
Lesson 10: Normal Distributions (three-day lesson)

Objectives:
- Use a normal distribution

Lesson 11: Probability and Statistics Unit Review (three-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 12: Probability and Statistics Unit Test

Unit 3: Periodic Functions and Trigonometry

In this unit, you will explore periodic functions and trigonometry. The unit will begin with exploring periodic data, which represent periodic behavior such as a heartbeat or a sound wave. You will then use the unit circle, radian angle measures, and trigonometric functions, such as sine, cosine, and tangent. You will learn how to model real-world situations and solve problems using trigonometric functions. Finally, you will explore trigonometric identities and equations. Using inverse trigonometric functions and basic identities, such as reciprocal, tangent, and cotangent identities, you will be able to create and solve trigonometric equations in order to solve problems.

Objectives:
- Determine the cycle, period, and amplitude of a periodic function and relate it to positions on the unit circle
- Graph the sine, cosine, and tangent functions
- Graph the secant, cosecant, and cotangent functions
- Evaluate trigonometric functions and cofunctions
- Measure angles using radian measure

Lesson 1: Exploring Periodic Data (two-day lesson)

Objectives:
- Identify cycles and periods of periodic functions
- Find the amplitude of periodic functions

Lesson 2: Angles and the Unit Circle (three-day lesson)

Objectives:
- Work with angles in standard position
- Find coordinates of points on the unit circle

Lesson 3: Radian Measure (three-day lesson)

Objectives:
- Use radian measure for angles
- Find the length of an arc of a circle

Lesson 4: Mid-Unit Review (two-day lesson)

Objectives:
- Review the skills from the first part of the unit.

Lesson 5: The Sine Function (two-day lesson)

Objectives:
- Identify properties of the sine function
Lesson 6: The Cosine Function (two-day lesson)

Objectives:
- Graph and write cosine functions
- Solve trigonometric equations

Lesson 7: The Tangent Function (two-day lesson)

Objectives:
- Graph the tangent function

Lesson 8: Reciprocal Trigonometric Functions (three-day lesson)

Objectives:
- Evaluate reciprocal trigonometric functions
- Graph reciprocal trigonometric functions

Lesson 9: Trigonometric Identities (three-day lesson)

Objectives:
- Verify trigonometric identities

Lesson 10: Solving Trigonometric Equations Using Inverses (three-day lesson)

Objectives:
- Evaluate inverse trigonometric functions
- Solve trigonometric equations

Lesson 11: Periodic Functions and Trigonometry Unit Review (three-day lesson)

Objectives:
- Review concepts in order to prepare for the unit test

Lesson 12: Periodic Functions and Trigonometry Unit Test

Unit 4: Semester B Review and Exam

In this unit, you will review concepts from semester B in order to prepare for the semester exam, which you will take at the end of this unit.

Objectives:
- Review for the semester exam
- Identify areas of strength and weakness in the material
- Complete a practice assessment and analyze your results

Lesson 1: Algebra 2 B, Part 2 Semester Review (two-day lesson)

Objectives:
- Review for the semester exam
- Identify areas of strength and weakness in the material
- Complete a practice assessment and analyze your results

Lesson 2: Algebra 2 B, Part 2 Semester Exam
PRE-CALCULUS A
Precalculus A

This is the first of two courses that comprise Precalculus. In this course, the student will continue their study higher-level mathematics. The student will begin by reviewing the fundamental concepts in algebra including linear relations and functions, systems of linear equations and inequalities, and polynomial and rational functions. Next, the student will explore and analyze trigonometric identities, and examine and test algebraic properties using graphs. The student will continue their study of graphs and trigonometric identities by graphing trigonometric functions. Finally, the student will explore trigonometric identities and equations in preparation for their study of calculus.

Throughout the course the student will be introduced to many problem-solving strategies, exposed to various technologies, and taught test-taking strategies.

Unit 1: Linear Relations and Functions

In this unit, you will review previously learned mathematical principles and extend prior mathematical knowledge. Concepts emphasized in this unit will reappear throughout the course, so take the time to complete each lesson carefully.

As you work through the unit, you will have the opportunity to review properties and operations of linear and nonlinear relations and functions. You will focus on the concepts of function composition and use these concepts to graph functions. You will also review how to write linear equations as well as equations for parallel and perpendicular lines. Then, you will use these concepts to model real-world situations that involve linear functions. Finally, you will identify and graph piecewise functions.

Objectives:
- Determine whether a given relation is a function and perform operations with functions.
- Evaluate and find zeros of linear functions using functional notation.
- Graph and write functions and inequalities.
- Write equations of parallel and perpendicular lines.
- Model data using scatter plots and write predictions equations.

Lesson 1: Relations and Functions

Objectives:
- Determine whether a given relation is a function
- Identify the domain and range of a relation or function
- Evaluate functions

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Lesson 2: Composition of Functions

Objectives:
- Perform operations with functions
- Find composite functions
- Iterate functions using real numbers

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Lesson 3: Graphing Linear Equations

Objectives:
- Graph linear equations
- Find the x- and y-intercepts of a line
- Find the slope of a line through two points
- Find zeros of linear functions

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Lesson 4: Writing Linear Equations

Objectives:
- Write linear equations
Lesson 5: Writing Equations of Parallel/Perpendicular Lines

Objectives:
- Write equations of parallel and perpendicular lines

Lesson 6: Modeling Real-World Data with Linear Functions

Objectives:
- Draw and analyze scatter plots
- Write a prediction equation and draw best fit lines
- Use a graphing calculator to compute correlation coefficients to determine goodness of fit
- Solve problems using prediction equation models

Lesson 7: Piecewise Functions

Objectives:
- Identify and graph piecewise functions including greatest integer, step, and absolute value functions

Lesson 8: Graphing Linear Inequalities

Objectives:
- Graph linear inequalities

Lesson 9: Unit 1 Review

Objectives:
- Review unit material

Lesson 10: Unit 1 Test

Unit 2: Systems of Linear Equations and Inequalities

In this unit, you will evaluate and graph systems of equations with two and three variables. You will review how to add, subtract, and multiply matrices. Then, you will use matrices to model motion and solve systems of equations using the inverses of matrices. You will also solve systems of linear inequalities by graphing and locating the minimum and maximum values. Finally, you will be introduced to linear programming procedures and use these procedures to solve real-world linear programming problems.

Objectives:
- Solve systems of equations and inequalities.
- Define matrices and add, subtract, and multiply matrices.
- Use matrices to model transformations.
- Find determinants and inverses of matrices.
- Use linear programming to solve problems.

Lesson 1: Solving Systems of Equations in Two Variables

Objectives:
- Solve systems of equations graphically
- Solve systems of equations algebraically

Lesson 2: Solving Systems of Equations in Three Variables
Lesson 3: Modeling Real-World Data with Matrices
Objectives:
- Model data using matrices
- Add, subtract, and multiply matrices

Lesson 4: Modeling Motion with Matrices
Objectives:
- Use matrices to determine the coordinates of polygons under a given transformation

Lesson 5: Determinants & Multiplicative Inverses of Matrices
Objectives:
- Evaluate determinants
- Find inverses of matrices
- Solve systems of equations by using inverses of matrices

Lesson 6: Solving Systems of Linear Inequalities
Objectives:
- Graph systems of inequalities
- Find the maximum or minimum value of a function defined for polygonal convex set

Lesson 7: Linear Programming
Objectives:
- Use linear programming procedures to solve applications
- Recognize situations where exactly one solution to a linear programming application may exist

Lesson 8: Unit 2 Review
Lesson 9: Unit 2 Test

Unit 3: The Nature of Graphs
In this unit, you will analyze and create graphs to solve many real-world situations. First, you will perform tests on a graph to determine if the graph of a relation is symmetrical. You will also identify and sketch linear and nonlinear families of graphs, including transformations, polynomials, absolute value, and radical inequalities. Then, you will solve and graph inverses of relations and functions problems. You will identify and evaluate continuity, end behavior, critical points, and extrema of functions. Finally, you will graph radical functions and solve direct, inverse, and joint variation problems.

Objectives:
- Graph functions, relations, inverses, and inequalities.
- Analyze families of graphs.
- Investigate symmetry, continuity, end behavior, and transformations of graphs.
- Find asymptotes and extrema of functions.
- Solve problems involving direct, inverse, and joint variation.
Objectives:
- Use algebraic tests to determine if the graph of a relation is symmetrical
- Classify functions as even or odd

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Lesson 2: Families of Graphs
Objectives:
- Identify transformations of simple graphs
- Sketch graphs of related functions

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Lesson 3: Graphs of Nonlinear Inequalities
Objectives:
- Graph polynomial, absolute value, and radical inequalities in two variables
- Solve absolute value inequalities

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Lesson 4: Inverse Functions and Relations
Objectives:
- Determine inverses of relations and functions
- Graph functions and their inverses

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Lesson 5: Continuity and End Behavior
Objectives:
- Determine whether a function is continuous or discontinuous
- Identify the end behavior functions
- Determine whether a function is increasing or decreasing at an interval

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Lesson 6: Critical Points and Extrema
Objectives:
- Find the extrema of a function

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Lesson 7: Graphs of Rational Functions
Objectives:
- Graph rational functions
- Determine vertical, horizontal, and slant asymptotes

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Lesson 8: Direct, Inverse, and Joint Variation
Objectives:
- Solve problems involving direct, inverse, and joint variation

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Lesson 9: Unit 3 Review

Lesson 10: Unit 3 Test

Unit 4: Polynomial and Rational Functions
In this unit, you will continue your study of polynomial and rational functions. You will find the roots of polynomial equations as well as use the discriminant to describe the roots of quadratic equations. You will calculate the factors of a polynomial using the Remainder, Factor, and Rational Root Theorems. Then, you will solve rational equations and decompose a fraction into partial fractions. You will also solve radical equations and inequalities using the same procedures you learned throughout this unit. Finally, you will use polynomial functions to solve real-world situations.

Objectives:
- Determine roots of polynomial equations.
- Solve quadratic, rational, and radical equations and rational and radical inequalities.
- Find the factors of polynomials.
- Approximate real zeros of polynomial functions.
- Write and interpret polynomial functions that model real-world data.

Lesson 1: Polynomial Functions

Objectives:
- Determine roots of polynomial equations
- Apply the Fundamental Theorem of Algebra

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Lesson 2: Quadratic Equations (two-day lesson)

Objectives:
- Solve quadratic equations
- Use the discriminant to describe the roots of quadratic equations

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Lesson 3: The Remainder and Factor Theorems

Objectives:
- Find the factors of polynomials using the Remainder and Factor Theorems

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Lesson 4: The Rational Root Theorem (two-day lesson)

Objectives:
- Identify all possible rational roots of a polynomial equation by using the Rational Root Theorem
- Determine the number of positive and negative real roots a polynomial function has

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Lesson 5: Locating Zeros of a Polynomial Function (two-day lesson)

Objectives:
- Approximate the real zeros of a polynomial function

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Lesson 6: Rational Equations and Partial Fractions

Objectives:
- Solve rational equations and inequalities
- Decompose a fraction into partial fractions

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Lesson 7: Radical Equations and Inequalities

Objectives:
- Solve radical equations and inequalities
Lesson 8: Modeling Real-World Data with Polynomial Functions (two-day lesson)

Objectives:
- Write polynomial functions to model real-world data
- Use polynomial functions to interpret real-world data

Lesson 9: Unit 4 Review

Lesson 10: Unit 4 Test

Unit 5: The Trigonometric Functions

In this unit, you will explore trigonometric functions. You will review angle and degree measure concepts as well as how to calculate the values for the trigonometric ratios using a right triangle. You will find the values of the six trigonometric ratios using the unit circle. Then, you will apply your knowledge of trigonometry to determine inverse trigonometric functions, to find missing angle and side measures, and to solve right triangles. Finally, you will explore and solve problems using the Law of Sines and the Law of Cosines.

Objectives:
- Convert decimal degree measures to degrees, minutes, and seconds and vice versa.
- Identify angles that are coterminal with a given angle.
- Solve triangles.
- Find the values of trigonometric functions.
- Find the areas of triangles.

Lesson 1: Angles and Degree Measure

Objectives:
- Convert decimal degree measures to degrees, minutes, and seconds, and vice versa
- Find the number of degree in a given number of rotations
- Identify angles that are coterminal with a given angle

Lesson 2: Trigonometric Ratios in Right Triangles (two-day lesson)

Objectives:
- Find the values of trigonometric ratios for acute angles of right triangles

Lesson 3: Trigonometric Functions on the Unit Circle

Objectives:
- Find the values of the six trigonometric functions using the unit circle
- Find the values of the six trigonometric functions of an angle in standard position given a point on its terminal side

Lesson 4: Applying Trigonometric Functions

Objectives:
- Use trigonometry to find the measures of the sides of right triangles

Lesson 5: Solving Right Triangles (two-day lesson)

Objectives:
- Evaluate inverse trigonometric functions
• Find missing angle measurements
• Solve right triangles

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Lesson 6: The Law of Sines

Objectives:
• Solve triangles by using the Law of Sines if the measures of two angles and side are given
• Find the area of a triangle if the measures of two sides and the included angle or the measures of two angles are a side are given

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Lesson 7: The Ambiguous Case for the Law of Sines (two-day lesson)

Objectives:
• Determine whether a triangle has zero, one, or no solutions
• Solve triangles using the Law of Sines

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Lesson 8: The Law of Cosines

Objectives:
• Solve triangles by using the Law of Cosines
• Find the area of triangles if the measures of the three sides are given

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Lesson 9: Unit 5 Review

Lesson 10: Unit 5 Test

Unit 6: Graphs of Trigonometric Functions

In this unit, you will continue your study of trigonometry by examining graphs of trigonometric functions. You will review angle and radian measure concepts including radian and degree measure, arc length, and area of a sector. You will explore linear and angular velocity. Then, you will examine the graphs for the sine and cosine functions. In addition, you will learn how to calculate the amplitude and period as well as translate the graphs for the sine and cosine functions. Finally, you will graph other trigonometric functions including secant, cosecant, tangent, and cotangent functions as well as graph inverse trigonometric functions.

Objectives:
• Change from radian measure to degree measure, and vice versa.
• Find linear and angular velocity.
• Use and draw graphs of trigonometric functions and their inverses.
• Find the amplitude, the period, the phase shift, and the vertical shift for trigonometric functions.
• Write trigonometric equations to model a given situation.

Lesson 1: Angles and Radian Measure

Objectives:
• Change from radian measure to degree measure, and vice versa
• Find the length of an arc given the measure of the central angle
• Find the area of a sector

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Lesson 2: Linear and Angular Velocity

Objectives:
• Find linear and angular velocity
Lesson 3: Graphing Sine and Cosine Functions (two-day lesson)

Objectives:
- Use the graphs of the sine and cosine functions

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Lesson 4: Amplitude and Period of Sine and Cosine Functions (two-day lesson)

Objectives:
- Find the amplitude and period for sine and cosine functions
- Write equations of sine and cosine functions given the amplitude and period

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Lesson 5: Translations of Sine and Cosine Functions (two-day lesson)

Objectives:
- Find the phase shift and the vertical translation for sine and cosine functions
- Write the equations of sine and cosine functions given the amplitude, period, phase shift, and vertical translation
- Graph compound functions

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Lesson 6: Modeling Real-World Data with Sinusoidal Functions

Objectives:
- Model real-world data using sine and cosine functions
- Use sinusoidal functions to solve problems

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Lesson 7: Graphing Other Trigonometric Functions (two-day lesson)

Objectives:
- Graph tangent, cotangent, secant, and cosecant functions
- Write equations of trigonometric functions

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Lesson 8: Trigonometric Inverses and Their Graphs (two-day lesson)

Objectives:
- Graph inverse trigonometric functions
- Find principal values of inverse trigonometric functions

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Lesson 9: Unit 6 Review

Lesson 10: Unit 6 Test

Unit 7: Trigonometric Identities and Equations

In this unit, you will identify trigonometric identities and solve trigonometric equations. You will explore reciprocal, quotient, Pythagorean, symmetry, and opposite-angle trigonometric identities and use them to verify other trigonometric identities. Then, you will learn and solve trigonometric equations and inequalities using the sum, difference, double-angle, and half-angle identities. Finally, you will learn how to write a linear equation in normal form and find the distance from a point to a line.

Objectives:
- Use reciprocal, quotient, Pythagorean, symmetry, and opposite-angle identities.
- Verify trigonometric identities.
- Use sum, difference, double-angle, and half-angle identities.
• Solve trigonometric equations and inequalities.
• Write a linear equation in normal form; Find the distance from a point to a line.

Lesson 1: Basic Trigonometric Identities (two-day lesson)

Objectives:
• Identify and use reciprocal identities, quotient identities, Pythagorean identities, symmetry identities, and opposite-angle identities

Lesson 2: Verifying Trigonometric Identities

Objectives:
• Use the basic trigonometric identities to verify other identities
• Find numerical values of trigonometric functions

Lesson 3: Sum and Difference Identities (two-day lesson)

Objectives:
• Use the sum and difference identities for the sine, cosine, and tangent functions

Lesson 4: Double-Angle and Half-Angle Identities (two-day lesson)

Objectives:
• Use the double-angle and half-angle identities for the sine, cosine, and tangent functions

Lesson 5: Solving Trigonometric Equations

Objectives:
• Solve trigonometric equations and inequalities

Lesson 6: Normal Form of a Linear Equation

Objectives:
• Write the standard form of a linear equation given the length of the normal and the angle it makes with the x-axis
• Write linear equations in normal form

Lesson 7: Distance From a Point to a Line

Objectives:
• Find the distance from a point to a line
• Find the distance between two parallel lines
• Write equations of lines that bisect angles formed by intersecting lines

Lesson 8: Unit 7 Review

Lesson 9: Unit 7 Test

Unit 8: Precalculus A Final

In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course
outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

**Lesson 1: Precalculus A Final Review**

**Lesson 2: Precalculus A Final**
PRE-CALCULUS B
Precalculus B

This is the second of two courses that comprise Precalculus. In this course, the student will continue their study higher-level mathematics. The student will review trigonometric concepts before being introduced to vectors and parametric equations. Next, the student will explore and solve problems involving polar coordinates and complex numbers. The student will continue their study of geometry by analyzing and transforming conic sections. Then, the student will explore and solve real-world exponential and logarithmic functions, sequences and series, probability, statistics, and data analysis problems. Finally, the student will examine calculus concepts including limits, derivatives, and the fundamental theorem of calculus in preparation for their study of calculus.

Throughout the course the student will be introduced to many problem-solving strategies, exposed to various technologies, and taught test-taking strategies.

Unit 1: Vectors and Parametric Equations

In this unit, you will review previously learned mathematical principles and extend prior mathematical knowledge. Concepts emphasized in this unit will reappear throughout the course, so take the time to complete each lesson carefully.

As you work through the unit, you will be introduced to vectors and parametric equations. You will explore vector notation, including terms such as magnitude, direction, and resultant. You will learn how to add, subtract, and multiply vectors algebraically and geometrically. Then, you will determine if two vectors are perpendicular by finding their cross product. You will write, solve, and graph two-dimensional and three-dimensional vector and parametric equation problems. Finally, you will use your knowledge of vectors to solve real-world applications involving vectors.

Objectives:
- Add, subtract, and multiply vectors.
- Represent vectors as ordered pairs or ordered triples and determine their magnitudes.
- Write and graph vector and parametric equations.
- Solve problems using vectors and parametric equations.
- Use matrices to model transformations in three-dimensional space.

Lesson 1: Geometric Vectors

Objectives:
- Find equal, opposite, and parallel vectors
- Add and subtract vectors geometrically

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Lesson 2: Algebraic Vectors

Objectives:
- Find ordered pairs that represent vectors
- Add, subtract, multiply, and find the line of magnitude of vectors algebraically

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Lesson 3: Vectors in Three-Dimensional Space

Objectives:
- Add and subtract vectors in three-dimensional space
- Find the magnitude of vectors in three-dimensional space

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Lesson 4: Perpendicular Vectors (two-day lesson)

Objectives:
- Find the inner and cross products of two vectors
- Determine whether two vectors are perpendicular

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Lesson 5: Applications with Vectors

Objectives:
- Solve problems using vectors and right triangle trigonometry

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Lesson 6: Vectors and Parametric Equations (two-day lesson)

Objectives:
- Write vector and parametric equations of lines
- Graph parametric equations

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Lesson 7: Modeling Motion Using Parametric Equations (two-day lesson)

Objectives:
- Model the motion of a projectile using parametric equations
- Solve problems related to the motion of a projectile, its trajectory, and range

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Lesson 8: Transformation Matrices in Three-Dimensional Space (two-day lesson)

Objectives:
- Transform three-dimensional figures using matrix operations to describe the transformation

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Lesson 9: Unit 8 Review

Lesson 10: Unit 8 Test

Unit 2: Polar Coordinates and Complex Numbers

In this unit, you will expand your knowledge of complex numbers and be introduced to polar coordinates. You will continue your study of polar coordinates by graphing polar equations, converting polar and rectangular coordinates, and writing the polar form of a linear equation. Then, you will learn how to add, subtract, multiply, and divide complex numbers in rectangular form as well as multiply and divide complex numbers in polar form. Finally, you will use De Moivre’s Theorem to calculate the powers and roots of complex numbers.

Objectives:
- Graph polar equations.
- Convert between polar and rectangular coordinates.
- Add, subtract, multiply, and divide complex numbers in rectangular and polar forms.
- Convert between rectangular and polar forms of complex numbers.
- Find powers and roots of complex numbers.

Lesson 1: Polar Coordinates

Objectives:
- Graph points in polar coordinates
- Graph simple polar equations
- Determine the distance between two points with polar coordinates

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Lesson 2: Graphs of Polar Equations

Objectives:
- Graph polar equations

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Lesson 3: Polar and Rectangular Coordinates

Objectives:
- Convert between polar and rectangular coordinates

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Lesson 4: Polar Form of a Linear Equation

Objectives:
- Write the polar form of a linear equation
- Graph the polar form of a linear equation

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Lesson 5: Simplifying Complex Numbers (two-day lesson)

Objectives:
- Add, subtract, multiply, and divide complex numbers in rectangular form

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Lesson 6: Complex Plane and Polar Form of Complex Numbers (two-day lesson)

Objectives:
- Graph complex numbers in the complex plane
- Convert complex numbers from rectangular to polar form and vice versa

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Lesson 7: Products/Quotients of Complex Numbers

Objectives:
- Find the product and quotient of complex numbers in polar form

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Lesson 8: Powers and Roots of Complex Numbers (two-day lesson)

Objectives:
- Find powers and roots of complex numbers in polar form using De Moivre's Theorem

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Lesson 9: Unit 9 Review

Lesson 10: Unit 9 Test

Unit 3: Conics

In this unit, you will review and expand your knowledge of geometry. You will review how to find the distance and midpoint using a coordinate plane and prove geometric relationships. Then, you will use algebra to write and graph the standard and general form of an equation for circles, ellipses, hyperbolas, and parabolas. You will explore rectangular and parametric forms of conic sections. You will identify the discriminant and graph conic transformations. Finally, you will solve systems of second-degree equations and inequalities.

Objectives:
- Use analytic methods to prove geometric relationships.
- Use the standard and general forms of the equations of circles, parabolas, ellipses, and hyperbolas.
- Graph circles, parabolas, ellipses, and hyperbolas.
- Find the eccentricity of conic sections; Recognize conic sections by their equations.
- Find parametric equations for conic sections defined by rectangular equations and vice versa.

Lesson 1: Introduction to Analytic Geometry
Objectives:
• Find the distance and midpoint between two points on a coordinate plane
• Prove geometric relationships among points and lines using analytical methods

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Lesson 2: Circles
Objectives:
• Use and determine the standard and general forms of the equation of a circle
• Graph circles

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Lesson 3: Ellipses
Objectives:
• Use and determine the standard and general forms of the equation of an ellipse
• Graph ellipses

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Lesson 4: Hyperbolas
Objectives:
• Use and determine the standard and general forms of the equation of a hyperbola
• Graph hyperbolas

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Lesson 5: Parabolas
Objectives:
• Use and determine the standard and general forms of the equation of a parabola
• Graph parabolas

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Lesson 6: Rectangular and Parametric Forms of Conic Sections (two-day lesson)
Objectives:
• Recognize conic sections in their rectangular form by their equations
• Find a rectangular equation for a curve defined parametrically and vice versa

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Lesson 7: Transformations of Conics (two-day lesson)
Objectives:
• Find the equations of conic sections that have translated or rotated
• Graph rotations and/or translations of conic sections
• Identify the equations of conic sections using the discriminant
• Find the angle of rotation for a given equation

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Lesson 8: Systems of Second-Degree Equations/Inequalities (two-day lesson)
Objectives:
• Graph and solve systems of second degree equations and inequalities
Unit 4: Exponential and Logarithmic Functions

In this unit, you will explore exponential and logarithmic functions. You will evaluate and simplify rational exponent expressions and equations, graph exponential equations and functions, and solve exponential growth and decay problems using the number $e$. Then, you will solve equations and inequalities involving common and natural logarithms. Finally, you will model real-world situations with exponential and logarithmic functions.

Objectives:
- Simplify and evaluate expressions containing rational and irrational exponents.
- Use and graph exponential functions and inequalities.
- Evaluate expressions and graph and solve equations using logarithms.
- Model real-world situations and solve problems using common and natural logarithms.

Lesson 1: Real Exponents

Objectives:
- Use the properties of exponents
- Evaluate and simplify expressions containing rational exponents
- Solve equations containing rational exponents

Lesson 2: Exponential Functions

Objectives:
- Graph exponential functions and inequalities
- Solve problems involving exponential growth and decay

Lesson 3: The Number $e$

Objectives:
- Use the exponential function $y = e^x$.

Lesson 4: Logarithmic Functions (two-day lesson)

Objectives:
- Evaluate expressions involving logarithms
- Solve equations and inequalities involving logarithms
- Graph logarithmic functions and inequalities

Lesson 5: Common Logarithms

Objectives:
- Find common logarithms and antilogarithms of numbers
- Solve equations and inequalities using common logarithms
- Solve real-world applications with common logarithmic functions

Lesson 6: Natural Logarithms

Objectives:
- Find natural logarithms of numbers
- Solve equations and inequalities using natural logarithms
- Solve real-world applications with natural logarithmic functions
Lesson 7: Modeling Real-World Data with Functions (two-day lesson)

Objectives:
- Find the doubling time of an exponential quantity
- Find exponential and logarithmic functions to model real-world data
- Linearize data

Lesson 8: Unit 11 Review

Lesson 9: Unit 11 Test

Unit 5: Sequences and Series

In this unit, you will continue your study of sequences and series. You will identify and use formulas to generate mathematical patterns, arithmetic sequences, and geometric sequences. You will explore limits and use them to evaluate infinite arithmetic and geometric sequences and series. Then, you will analyze a series to determine if it convergent or divergent. You will write a series in sigma notation using the nth term. You will learn the Binomial Theorem and use it to solve special sequences and series. Finally, you will solve and graph functions using iteration and prove conjectures using mathematical induction.

Objectives:
- Identify and find nth terms of arithmetic, geometric, and infinite sequences.
- Find sums of arithmetic, geometric, and infinite series.
- Determine whether a series is convergent or divergent.
- Use sigma notation; Use the Binomial Theorem to expand binomials.
- Evaluate expressions using exponential, trigonometric, and iterative series.

Lesson 1: Arithmetic Sequences and Series

Objectives:
- Find the nth term and arithmetic means of an arithmetic sequence
- Find the sum of n terms of an arithmetic series

Lesson 2: Geometric Sequences and Series

Objectives:
- Find the nth term and geometric means of a geometric sequence
- Find the sum of n terms of a geometric series

Lesson 3: Infinite Sequences and Series (two-day lesson)

Objectives:
- Find the limit of the terms of an infinite sequence
- Find the sum of an infinite geometric series

Lesson 4: Convergent and Divergent Series (two-day lesson)

Objectives:
- Determine whether a series is convergent or divergent

Lesson 5: Sigma Notation and the nth Term

Objectives:
- Use sigma notation
Lesson 6: The Binomial Theorem

Objectives:
• Use the Binomial Theorem to expand binomials

Lesson 7: Special Sequences and Series (two-day lesson)

Objectives:
• Approximate e^x trigonometric values, and logarithms of negative numbers by using series
• Use Euler's Formula to write the exponential form of a complex number

Lesson 8: Sequences and Iteration

Objectives:
• Iterate functions using real and complex numbers

Lesson 9: Mathematical Induction

Objectives:
• Use mathematical induction to prove the validity of mathematical statements

Lesson 10: Unit 12 Review

Lesson 11: Unit 12 Test

Unit 6: Combinatorics and Probability

In this unit, you will extend your knowledge of probability. You will review the Counting Principle, independent and dependent events, permutations, and combinations. You will explore permutations with repetitions and circular combinations. Then, you will solve problems that involve the probability of an event, odds, probability of a compound event, and conditional probability. Finally, you will find the probability of an event using the Binomial Theorem.

Objectives:
• Solve problems involving combinations and permutations.
• Distinguish between independent and dependent events and between mutually exclusive and mutually inclusive events.
• Find probabilities.
• Find odds for the success and failure of an event.

Lesson 1: Permutations and Combinations

Objectives:
• Solve problems related to the Basic Counting Principle
• Distinguish between dependent and independent events
• Solve problems involving permutations and combinations

Lesson 2: Permutations: Repetitions & Circular Permutations

Objectives:
• Solve problems involving permutations with repetitions
• Solve problems involving circular permutations

Lesson 3: Probability and Odds
Lesson 4: Probabilities of Compound Events

Objectives:
- Find the probability of an event
- Find the odds for the success and failure of an event

Lesson 5: Conditional Probability

Objectives:
- Find the probability of an event given the occurrence of another event

Lesson 6: The Binomial Theorem and Probability (two-day lesson)

Objectives:
- Find the probability of an event by using the Binomial Theorem

Lesson 7: Unit 13 Review

Lesson 8: Unit 13 Test

Unit 7: Statistics and Data Analysis

In this unit, you will explore statistics and data analysis methods. You will draw and interpret data using bar graphs, line plots, back-to-back bar graphs, three-dimensional bar graphs, and histograms. You will calculate measures of central tendency for a set of data. Then, you will analyze data using measures of variability including range, quartiles, interquartile range, semi-interquartile range, mean deviation, and standard deviation. You will explore normal distributions. Finally, you will determine the standard error of the mean and level of confidence for a sample set of data.

Objectives:
- Make and use bar graphs, histograms, frequency distribution tables, stem-and-leaf plots, and box-and-whisker plots.
- Find the measures of central tendency and the measures of variability.
- Use the normal distribution curve.
- Find the standard error of the mean to predict the true mean of a population with a certain level of confidence.

Lesson 1: The Frequency Distribution

Objectives:
- Draw, analyze, and use bar graphs and histograms
- Organize data into a frequency or distribution table

Lesson 2: Measures of Central Tendency (two-day lesson)

Objectives:
- Find the mean, median, and mode of a set of data
- Find measures of central tendency of data organized in a stem-and-leaf plot or a frequency distribution table

Lesson 3: Measures of Variability (two-day lesson)

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Objectives:
- Find the interquartile range, the semi-interquartile range, mean deviation, and standard deviation of a set of data
- Organize and compare data using box-and-whisker plots

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Lesson 4: The Normal Distribution

Objectives:
- Use the normal distribution curve

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Lesson 5: Sample Sets of Data (two-day lesson)

Objectives:
- Find the standard error of the mean to predict the true mean of a population with a certain level of confidence

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Lesson 6: Unit 14 Review

Lesson 7: Unit 14 Test

Unit 8: Precalculus B Final

In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Lesson 1: Precalculus B Final Review

Lesson 2: Precalculus B Final Exam
CONSUMER MATH A
**Consumer Math A**

This is the first of two courses that comprise Consumer Math. In this course, the student will learn that money is lost or gained depending upon the information a consumer has to help him make informed decisions. Retailers, banks, and credit card companies may not provide consumers with all the information they need to make good decisions. By the end of this course, the student will understand the history of money, define fixed costs and discretionary spending, understand the importance of savings, and recognize the dangers of debt. This course will ask the student to look hard at his financial choices including spending patterns, purchasing motivations, and how to make some difficult decisions.

**Unit 1: Money and Spending**

In this unit, you will learn the necessary skills to establish a solid consumer mathematics foundation. Concepts emphasized in this unit will reappear throughout the course, so take the time to complete each lesson carefully.

As you work through the unit, you will explore the history of currency and how it has changed over time. You will calculate discount, sales tax, and the cost of single items using many real-world situations. You will learn how to estimate expenses before going to the register at a store or receiving a check at a restaurant. You will analyze the information on an invoice and examine the different methods of payment. Finally, you will explore the fundamentals of creating a budget by estimating your expenses and saving money.

**Objectives:**
- Compute basic money exchange problems
- Calculate how to save money by using discounts and sales
- Use multiplication to quickly calculate a total
- Use a percentage discount to calculate savings
- Use various methods of discounting to compare savings

**Lesson 1: The History of Money: Introducing Trade**

Objectives:
- Explore how the need for trade led to bartering and eventually the development of currency
- Trace the history of money across the centuries
- Compute a basic exchange

**Lesson 2: History of Money: Using Metal & Paper as Currency**

Objectives:
- Justify the development of metal and paper currencies
- Explore how exchanges occur in current economies
- Compute basic money exchange problems

**Lesson 3: History of Money Activity: Exchanging Currency**

Objectives:
- Discover how currency values are established globally
- Determine where to find exchange rates
- Use currency exchange formulas to compute values

**Lesson 4: Department Store Sales**

Objectives:
- Explore how money is used in shopping
- Determine what items fit within a limited amount of money

**Lesson 5: Calculating Change and Discounts**

Objectives:
- Explore how money is used in shopping
- Calculate how to save money by using discounts and sales

**Lesson 6: The Department Store: Getting the Best Deal**

Objectives:
Lesson 7: History of Money and Department Store

Objectives:
- Calculate exchange rates using multiplication of decimals
- Compare the results of using two different buying scenarios
- Calculate how you can save money by using discounts and sales

Lesson 8: The Grocery Store

Objectives:
- Use multiplication to quickly calculate a total
- Calculate the cost of a single item by using division

Lesson 9: The Grocery Store: Shopping with Coupons

Objectives:
- Use multiplication to quickly calculate a total
- Calculate the cost of a single item by using division
- Add and subtract money in order to compare cost savings

Lesson 10: The Electronics Store: Percentages and Sales Tax

Objectives:
- Use a percentage discount to calculate savings
- Compute how sales tax increases the amount you pay for something

Lesson 11: The Electronics Store: Online vs In-Store Savings

Objectives:
- Use a percentage discount to compare savings
- Review the use of percentages, adding and subtracting money, and discounts

Lesson 12: What’s My Total Bill? (two-day lesson)

Objectives:
- Use various methods of discounting to compare savings
- Compute two different scenarios each for a grocery store and electronics store purchase

Lesson 13: The Outlet Mall

Objectives:
- Explore real-world examples of effective shopping
- Calculate the impact of discounts and taxes on a total payment

Lesson 14: Unit Review

Objectives:
- Review some of the early history of money
- Complete problems involving foreign exchange rates
- Compare savings using coupons or percentage discounts

Lesson 15: Unit Test

Unit 2: Controlling Expenses

This unit focuses on calculating total expenses using addition and subtraction of decimals, multiplication and division of decimals, and percentages of numbers. You will learn to read tables with specific situational data including time and money to determine the best plan for using electricity and telephones. You will also learn how to make estimations when shopping and then use those estimations to calculate the total bill at a restaurant including sales tax and tip. Then, you will complete activities to keep track of your expenses and checking balance. Lastly, you will perform computations involving wage earnings in order to determine how many work hours a purchase requires.

Objectives:
• Use estimation to calculate the total bill
• Examine different ways of paying for something
• Calculate purchases including discounts and sales tax
• Use steps for calculating a bill in order to pay by check
• Compare plans and determine the best choice for a given situation

Lesson 1: The Restaurant: The Bill
Objectives:
• Use estimation to calculate the total bill before ordering
• Calculate the individual items that go into the restaurant's "grand total"

Lesson 2: Discounts and Tip
Objectives:
• Use percentages in order to calculate sales tax and tip
• Complete calculations to determine the total cost of a restaurant visit

Lesson 3: Paying Retailers
Objectives:
• Examine different ways of paying for something
• Consider the advantages and disadvantages of paying with cash, debit cards, checks, and credit cards

Lesson 4: Cash, Check, or Charge
Objectives:
• Examine different ways of paying for something
• Consider the advantages and disadvantages of paying with cash, debit cards, checks, and credit cards

Lesson 5: Controlling Your Checkbook (two-day lesson)
Objectives:
• Calculate purchases including discounts and sales tax
• Complete entries in a checkbook register and submit the completed entries as a part of the portfolio

Lesson 6: Reviewing and Paying the Power Bill
Objectives:
• Analyze the information on a customer statement such as a bill
• Use steps for calculating a bill in order to pay by check

Lesson 7: Time to Pay the Power Bill
Objectives:
• Analyze the information on a customer statement such as a bill
• Use steps for calculating a bill in order to pay by check
• Calculate the cost of various plans and their benefits

Lesson 8: Comparing Choices
Objectives:
• Calculate savings on various plans
• Compare plans and determine the best choice for a given situation

Lesson 9: Estimating Your Expenses
Objectives:
• Tally monthly expenses
• Learn to estimate expenses that vary from month to month
• Calculate monthly expenses and make a savings plan

Lesson 10: Other Types of Expenses
Objectives:
• Tally monthly expenses
• Learn to estimate expenses that vary from month to month
Lesson 11: Receipts, Bills, and Estimates, Oh My!

Objectives:
- Calculate how much money is earned when working
- Compute the amount of time worked and how that translates into wages

Lesson 12: Interest Rates

Objectives:
- Calculate how much money is earned when working
- Identify key information for calculating interest earned

Lesson 13: Time is Money

Objectives:
- Calculate wages earned
- Compute the amount of time saved with interest earned

Lesson 14: Unit Review

Objectives:
- Calculate problems using estimation
- Compute wages using multiplication of decimals
- Determine “time saved” through analyzing interest rates

Lesson 15: Unit Test

Unit 3: Finances: Income and Debt

Interest, earnings, and savings are the key concepts in this unit. You will solve problems involving the formula for simple interest to determine various earnings on savings. You will learn the difference between involuntary and voluntary pay deductions and use a percentage of a number to determine net income. You will also have an opportunity to explore the effects of compounding interest on a traditional savings over a long period of time as compared to a simple interest computation over the same period of time. By the end of the unit, you will have a greater understanding of how credit cards have an impact on your financial health by completing problems using interest calculations and late fees. Through these calculations, you will compare the final cost of these credit card purchases, which may change your mind about purchasing items that are wants (luxuries) rather than needs (necessities).

Objectives:
- Explain the differences between gross pay and net income
- Explore the importance of savings in planning a healthy financial future
- Calculate savings based on income and expenses
- Compute interest on savings using online CD calculators
- Identify the long-term benefits of following a savings plan

Lesson 1: Hourly vs. Salaried

Objectives:
- Explain the differences between gross pay and net income
- Identify the differences between a salaried employee and an hourly employee
- Calculate the gross pay differences based on hourly wage rates and salary information

Lesson 2: Withholdings

Objectives:
- Explain the differences between gross pay and net income
- Identify the differences between a salaried employee and an hourly employee
- Calculate the gross pay and net pay differences based on various deductions

Lesson 3: How Much Money Do I Spend?
Objectives:
• Recognize the difference between fixed expenses and discretionary spending
• Explore the importance of savings in planning a healthy financial future

Lesson 4: Discretionary and Fixed Expenses

Objectives:
• Recognize the difference between fixed expenses and discretionary spending
• Calculate savings based on income and expenses

Lesson 5: Am I Financially Healthy? Planning

Objectives:
• Explore the problems caused by spending more than you make
• Define surplus and deficit as applied to personal spending
• Calculate fixed expenses and discretionary income

Lesson 6: Buyer Beware

Objectives:
• Explore the problems caused by spending more than you make
• Define surplus and deficit as applied to personal spending
• Calculate the true cost of some special finance deals

Lesson 7: CD Investments

Objectives:
• Explore the problems caused by spending more than you make
• Compute interest on savings using online CD calculators

Lesson 8: Saving Is Stability: Controlling Spending

Objectives:
• Identify the long-term benefits of following a savings plan
• Explore some of the roadblocks to savings—and see how to overcome them
• Calculate interest on savings accounts versus credit cards

Lesson 9: Spendaholics

Objectives:
• Identify the long-term benefits of following a savings plan
• Explore some of the roadblocks to savings—and see how to overcome them
• Calculate the impact of choice on savings

Lesson 10: How Much Have I Saved? (two-day lesson)

Objectives:
• Explore how banks determine their interest rates
• Calculate interest payments on a savings account based on annual, monthly and daily periods

Lesson 11: Debt Is Dangerous: Pay More Than the Minimum

Objectives:
• Explain the danger of carrying debt
• Explore how credit card companies and banks determine their interest rates
• Calculate interest payments based on a variety of different payment options

Lesson 12: Don't Be a Doris

Objectives:
• Explain the danger of carrying debt
Lesson 13: Debt Is Dangerous

Objectives:
- Explain the danger of carrying debt
- Explore how credit card companies and banks determine their interest rates
- Calculate monthly interest earned in a savings account

Lesson 14: Unit Review

Objectives:
- Calculate the cost of an item using sales tax and interest charges
- Compute the equivalent work hours for purchasing a good
- Review concepts taught in Lessons 1–13 of the unit

Lesson 15: Unit Test

Unit 4: Dealing with Debt

Debt is an inevitable part of your financial life and this unit focuses on different types of debt and the mathematical computations involved. You differentiate between fixed expenses and discretionary expenses, then calculate your total fixed expenses using addition, subtraction, multiplication, and division of decimals, and finally determine how much of your gross pay is allowed for housing and fixed expenses using percentage of a number. You complete decimal computations again when paying off credit card debt over a long period of time. Finally, you explore the methods used to calculate your credit score and your credit scores impact on interest rates involving debt and savings. You will interpret a data table to complete your calculations, and then compare outcomes based on several situations.

Objectives:
- Calculate how to increase savings by reducing expenses
- Compute different interest amounts due based on different principal amounts due
- Compute interest on credit cards
- Compare the impact on principal reduction of changes in monthly payments
- Explain what your credit score means and how it is developed

Lesson 1: Debt Ratio

Objectives:
- Use percentages to determine the maximum amount of money that should be spent on housing costs
- Calculate how to increase savings by reducing expenses

Lesson 2: Necessity or Luxury

Objectives:
- Calculate the impact of luxury items on debt ratios
- Learn how to increase your savings by reducing your expenses

Lesson 3: When Debt Is Acceptable: Secured vs. Unsecured

Objectives:
- Identify the difference between secured debt and credit card debt
- Calculate the savings that result from paying off debt rather than investing in a savings account

Lesson 4: When Debt Is Acceptable: Mortgage Loans

Objectives:
- Describe the specific attributes of mortgage loans that make them good debt
- Compute different interest amounts due based on different principal amounts due
Lesson 5: When Debt Isn't Acceptable: Minimum Due and Missed

Objectives:
- Identify what types of debt are unacceptable
- Compute the accumulated interest on credit card debt
- Calculate the impact of cash advances on credit card interest

Lesson 6: When Debt Isn't Acceptable: Credit Cards

Objectives:
- Identify what types of debt are unacceptable
- Compute interest on credit cards

Lesson 7: When Debt Isn't Acceptable: Rewards Programs

Objectives:
- Identify what types of debt are unacceptable
- Compare credit and debit card rewards programs
- Calculate interest on credit card purchases

Lesson 8: I Already Have Too Many Credit Cards

Objectives:
- Analyze which of your credit cards to pay off first by calculating and comparing interest due
- Identify the benefits of zero-rate APR balance transfers

Lesson 9: I Already Have Too Many Credit Cards: Debt Ratios

Objectives:
- Calculate debt ratios using various balance information
- Identify the problems that can arise from closing credit accounts

Lesson 10: Give Yourself Credit for Avoiding Credit Problems

Objectives:
- Calculate interest due based on various principal amounts
- Create a table showing a schedule to pay off a credit card with a given monthly payment plan
- Compare the impact on principal reduction of changes in monthly payments

Lesson 11: How a Credit Score Works: Financial Decisions

Objectives:
- Explain what your credit score means and how it is developed
- Compare the impact different interest rates (caused by high credit scores and low credit scores) can have on balances

Lesson 12: How a Credit Score Works: The Payoff

Objectives:
- Explain what your credit score means and how it is developed
- Compare the impact different interest rates (caused by high credit scores and low credit scores) can have on balances

Lesson 13: How a Credit Score Works: The Perfect Score

Objectives:
- Explain what your credit score means and how it is developed
- Compare the impact different interest rates (caused by high credit scores and low credit scores) can have on balances

Lesson 14: Unit Review

Objectives:
- Identify differences among different types of financial transactions
- Compute savings based on different interest rates
- Compare interest accrued based on various scenarios
- Review information and concepts related to dealing with debt
Lesson 15: Unit Test

Unit 5: Review

This unit reviews the information taught in Units 1 – 4 in preparation for the course final. You review key concepts from Unit 1 such as bartering, exchange rates, and purchasing goods from grocery and departments stores. You use decimal computations to calculate final costs and then comparing of decimals to make recommendations on purchases. Unit 2’s review continues the theme of decimal computations but expands to include controlling your expenses and keeping track of income through utilization of a checking account. Unit 3 focused on tabulating interest using the I=Prt simple interest formula and the impact long periods of time can have on savings growth. You also review calculating gross pay, deductions, and net income. Finally for Unit 4’s review, you complete comparisons involving credit card debt versus savings lost, the impact of various payments of paying off debt, the work hours cost of purchases, and the effects of different credit scores on interest rates.

Objectives:
- Review concepts presented in Unit 1: Money and Spending
- Review concepts presented in Unit 2: Controlling Expenses
- Review concepts presented in Unit 3: Finances: Income and Debt
- Review concepts presented in Unit 4: Dealing with Debt
- Study for the final exam

Lesson 1: Unit 1 Review: Money and Spending

Lesson 2: Unit 2 Review: Controlling Expenses

Lesson 3: Unit 3 Review: Finances: Income and Debt

Lesson 4: Unit 4 Review: Dealing with Debt

Unit 6: Final Exam

In this unit, you will take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes before you begin to review.

Objectives:
- Identify strategies that you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, answers to lesson questions, and key vocabulary terms

Lesson 1: Final Exam
CONSUMER MATH B
Consumer Math B

This is the second of two courses that comprise Consumer Math. In this course, students will continue to learn how to make good financial decisions. Retailers, banks, and credit card companies may not provide consumers with all the information they need to make good decisions. By the end of this course, the student will differentiate between secured and unsecured debt, learn how to create a budget, examine a credit report, and discover the best way to increase income and decrease expenses. This course will provide the student with the skills to make good financial decisions.

Unit 1: Debt vs. Savings

In this unit, you learn more about types of debt from credit cards (unsecured debt) to home mortgages (secured debt). You learn why good credit is an advantage when acquiring debt and how to avoid bad credit. Using interest rate tables that take credit scores and secured versus unsecured loans into consideration, you will compute interest accrued on loans. You will analyze the impacts of maintaining a good credit history on your long term ability to save. Given various credit situations, you will determine which financial approach is the best by completing computations involving simple interest, money, and long term payoff amounts.

Objectives:
- Identify the differences between secured debt and unsecured debt
- Explain the relationship between accrued interest and principal balance
- Interpret and analyze data from tables
- Compute how depreciation affects the cost of buying a car
- Identify the advantages and disadvantages of owning a home instead of renting

Lesson 1: Secured Debt

Objectives:
- Identify the differences between secured debt and unsecured debt
- Calculate the consequences of defaulting on a secure debt
- Identify the impact of maintaining a good credit score on debt
- Analyze data in a table

Lesson 2: Unsecured Debt

Objectives:
- Identify the differences between secured debt and unsecured debt
- Calculate the consequences of defaulting on unsecured debt
- Identify the impact of maintaining a good credit score on debt
- Analyze and use data from a table

Lesson 3: Exploring Other Forms of Debt

Objectives:
- Identify the differences between secured debt and unsecured debt
- Determine trends within data
- Analyze and use data from a table

Lesson 4: Unsecured Debt Payment

Objectives:
- Identify the steps involved in building a strong credit history and some specific ways of raising your credit score
- Identify how a good credit score can be advantageous to you

Lesson 5: Future Wealth

Objectives:
- Identify the steps involved in building a strong credit history and some specific ways of raising your credit score
- Determine which debt should be eliminated by comparing several situations
- Explain the relationship between accrued interest and principal balance

Lesson 6: Good Credit vs. Bad Credit: An Overview

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Objectives:
- Identify how a high credit score decreases your fixed expenses
- Calculate how your credit score affects your mortgage payments when you buy a house
- Calculate how your credit score affects your car payments when you purchase an automobile
- Determine other ways that your credit score impacts your financial situation

Lesson 7: Examples of Good Credit

Objectives:
- Identify how a high credit score decreases your fixed expenses
- Calculate how your credit score affects your mortgage payments when you buy a house
- Calculate how your credit score affects your car payments when you purchase an automobile
- Determine other ways that your credit score impacts your financial situation
- Interpret and analyze data from tables

Lesson 8: Examples of Bad Credit

Objectives:
- Identify how a high credit score decreases your fixed expenses
- Calculate how your credit score affects your mortgage payments when you buy a house
- Calculate how your credit score affects your car payments when you purchase an automobile
- Determine other ways that your credit score impacts your financial situation

Lesson 9: Savings vs. Debt (two-day lesson)

Objectives:
- Calculate interest accrued based on various principal balances
- Compare total accrued interest to determine savings amounts
- Determine the differences and sums for each month’s credit payments

Lesson 10: Cars: Used or New

Objectives:
- Compute how depreciation affects the cost of buying a car
- Compare the advantages (and disadvantages) of buying a used car instead of a new car

Lesson 11: Cars: Lease or Own

Objectives:
- Compute how depreciation affects the cost of buying a car
- Compare the advantages (and disadvantages) of buying a used car instead of a new car
- Identify the differences between leasing a car and buying a car

Lesson 12: Homes: Rent

Objectives:
- Identify the advantages and disadvantages of owning a home instead of renting
- Use proportions to work backwards with percentages

Lesson 13: Homes: Mortgage

Objectives:
- Itemize the various expenses that are a part of the cost of home ownership
- Calculate net income and allowable housing expense ratios
Lesson 14: Unit Review

Objectives:
- Identify differences among different types of financial transactions
- Compute savings based on different interest rates
- Compare interest accrued based on various scenarios
- Review information and concepts relating to dealing with debt

Lesson 15: Unit Test

Unit 2: Budgeting

Budgets are used to accomplish a variety of financial goals whether you are saving for an emergency fund or retirement. This unit focuses on the key parts of a budget and the proper way to develop one. You revisit computations involving housing expenses and fixed costs and use proportions to determine the realized income needed to stay within the percentage limits allowed. You will calculate how much of an emergency fund you need based on housing expenses and fixed costs and then develop a plan of saving involving either a percentage of your discretionary monies or income from a 2nd job. Lastly, you will complete computations for how much money an emergency fund can save you in the case when you need to use it versus if you had used a credit card, and then how long it will take you to rebuild your emergency fund.

Objectives:
- Identify how the concepts of budgeting, expenses, saving, credit management, and retirement tie together
- Analyze the impact of expenses on savings
- Analyze data for trends in savings
- Identify the important reasons for having an emergency fund
- Determine the steps of creating your own budget

Lesson 1: Budgeting

Objectives:
- Identify how the concepts of budgeting, expenses, saving, credit management, and retirement tie together
- Calculate the effect that inflation has on your purchasing power
- Compute how appreciation offsets the effects of inflation

Lesson 2: Creating a Hypothetical Budget (two-day lesson)

Objectives:
- Create a budget using income, fixed expenses, and discretionary expenses
- Calculate realized income
- Analyze the impact of expenses on savings

Lesson 3: Fixed Costs

Objectives:
- Determine how much money you need in your own emergency fund
- Calculate the amount of discretionary monies available

Lesson 4: Assets and "Net" Savings

Objectives:
- Analyze data for trends in savings
- Identify ways to create your emergency "safety net"

Lesson 5: Discretionary Spending: The Extras of Life

Objectives:
- Calculate how you can save money by eliminating a few simple luxuries
- Analyze why the earlier you start saving for your retirement, the better
- Compute how paying down credit card debt can save you more money than investing the same amount of money
Lesson 6: The Second Job

Objectives:
- Calculate how you can save money by eliminating a few simple luxuries
- Determine how a low interest rate, when compounded over a long period of time, can generate a significant return on your investment
- Analyze why the earlier you start saving for your retirement, the better
- Compute why reducing discretionary spending doesn't mean you have to eliminate luxuries altogether

Lesson 7: Emergency Funds: Cash Reserves

Objectives:
- Identify the important reasons for having an emergency fund
- Compute the different forms your emergency fund can take
- Calculate the impact different types of investments can have on total interest accrued

Lesson 8: Emergency Funds: Insurance Policies

Objectives:
- Determine the benefits insurance can have in emergency situations
- Perform percentage computations involving money and interest compounding
- Compare accrued interest given different scenarios

Lesson 9: Emergencies – A Brainstorming Activity

Objectives:
- Identify different situations that may require an emergency fund
- Calculate the different impacts that using an emergency fund can have on savings

Lesson 10: Budgeting Summary: Reviewing the Process

Objectives:
- Determine the steps of creating your own budget
- Identify the steps you should take when you are finally able to create a budget surplus

Lesson 11: Budgeting Summary: The Never-ending Budget Process

Objectives:
- Determine the steps of creating your own budget
- Calculate steps you can take to turn a deficit situation into a surplus
- Identify the steps you should take when you are finally able to create a budget surplus

Lesson 12: Budgeting Summary: Learning from Experience

Objectives:
- Determine the steps of creating your own budget
- Calculate steps you can take to turn a deficit situation into a surplus
- Identify the steps you should take when you are finally able to create a budget surplus

Lesson 13: Unit Review

Objectives:
- Identify different parts of a budget
- Compute fixed expenses based on various types of data
- Use percentages and proportions to calculate realized income

Lesson 14: Unit Test

Unit 3: Finances

You have already considered the impact of your credit score on your ability to save and interest rates on debt. This unit will focus you on increasing your savings through other
ways. You will complete calculations involving paying off high interest debt more quickly by paying more than the minimum and compare the savings both in money and time. You will learn about how carpooling can save you and coworkers money on transportation costs, and compare the benefits of moving from one part-time job to another even though the base pay rate may be less. Coupons were one form of saving when shopping but another is bulk or volume purchasing. You learn when it is a good thing to visit a wholesale club store and the savings that can be had when compared to local store prices by completing multiplication and division problems involving money. Lastly, you will learn the statistical value of attaining certain educational degrees by analyzing data from the United States Bureau of Labor and turning your educational level into money terms.

Objectives:
• Calculate the ways to increase your income
• Interpret and analyze data in a table using various mathematical operations
• Calculate the impact of using a variety of ways to cut your everyday expenses
• Identify the first step you should take in your campaign to save money
• Calculate the impact credit card debt can have on your financial well-being

**Lesson 1: A Part-Time Job**

Objectives:
• Calculate the ways to increase your income
• Compute the increase to your income from getting a part-time job
• Compare net hourly income wage

**Lesson 2: Promotions and Merit Pay**

Objectives:
• Calculate the ways to increase your income
• Compute increases to your income from getting a job or taking a second job

**Lesson 3: A New Job**

Objectives:
• Calculate the ways to increase your income
• Compute changes in realized income and discretionary monies

**Lesson 4: Labor Statistics**

Objectives:
• Identify the single best way to increase your income
• Calculate the actual monetary advantage to getting your high school diploma
• Compare the benefits of following further educational paths beyond high school
• Interpret and analyze data in a table using various mathematical operations

**Lesson 5: Investigating Labor Statistics (two-day lesson)**

Objectives:
• Identify the single best way to increase your income
• Calculate the actual monetary advantage to getting your high school diploma
• Compare the benefits of following further educational paths beyond high school
• Interpret and analyze data from a table

**Lesson 6: Degree Effect**

Objectives:
• Identify the single best way to increase your income
• Calculate the actual monetary advantage to getting your high school diploma
• Compare the benefits of following further educational paths beyond high school
Lesson 7: Gifts and Bulk Buying

Objectives:
- Calculate the impact of using a variety of ways to cut your everyday expenses
- Determine the financial benefits of using coupons and buying in volume as ways to decrease your expenses

Lesson 8: Sharing Expenses

Objectives:
- Calculate the impact of using a variety of ways to cut your everyday expenses
- Determine the financial benefits of carpooling, using coupons, and buying in volume as ways to decrease your expenses
- Calculate the financial impact of carpooling

Lesson 9: Benefits of Coupons

Objectives:
- Calculate the impact of using a variety of ways to cut your everyday expenses
- Determine the financial benefits of carpooling, using coupons, and buying in volume as ways to decrease your expenses
- Demonstrate proficiency with concepts covered in previous lessons

Lesson 10: Credit Card Debt Revisited

Objectives:
- Calculate the impact of the single best way to decrease your expenses
- Determine the financial benefits of paying more than the minimum payment on your credit card bill
- Compute how a small increase in your monthly payment results in huge savings over time

Lesson 11: Paying More Than the Minimum

Objectives:
- Calculate the impact of the single best way to decrease your expenses
- Determine the financial benefits of paying more than the "minimum payment" on your credit card bill
- Compute how a small increase in your monthly payment results in huge savings over time

Lesson 12: Balancing Act of Debt

Objectives:
- Identify the first step you should take in your campaign to save money
- Explain why investing in a savings account is not necessarily the first thing you should do to save money
- Calculate the impact credit card debt can have on your financial well-being

Lesson 13: Retirement Savings vs. Debt

Objectives:
- Identify the first step you should take in your campaign to save money
- Explain why investing in a savings account is not necessarily the first thing you should do to save money
- Calculate the impact credit card debt can have on your financial well-being

Lesson 14: Unit Review

Objectives:
- Compute the impact of changing jobs or taking a part-time job
• Compare benefits of investing in a savings plan versus paying off credit card debt
• Identify the instances when investing makes sense
• Calculate income implications from attaining different levels of education

**Lesson 15: Unit Test**

**Unit 4: Savings and Financial Planning**

This unit takes a more detailed look at savings plans. You will learn the key element to a good savings plan and then why it is important to diversify. You will learn about the stock market and treasury bonds as other options to reach your savings goals but also identify the advantages and disadvantages of these options. You will make many calculations using percentages and money, whether to calculate your realized income or the down payment for a house. You will compare savings outcomes and the effect of shifting monies from one savings instrument to another. This unit will also explain how a long-term savings goal can be translated into monthly goals. Lastly, you will examine the importance of contracts to your life and their specific implications when you loan money to friends or when your parents rent you an apartment to attend college away from home.

Objectives:
• Outline the steps in planning your savings strategy
• Identify the relationship between risk and reward
• Practice how to write basic contracts
• Identify the financial benefits of direct deposit and paying bills online
• Plan your future financial activities

**Lesson 1: Goal Setting**

Objectives:
• Outline the steps in planning your savings strategy
• Computationally compare the differences between short-term and long-term financial goals
• Calculate the significant impacts of long-term financial goals

**Lesson 2: Short-term vs. Long-term**

Objectives:
• Outline the steps in planning your savings strategy
• Computationally compare the differences between short-term and long-term financial goals
• Calculate the significant impacts of long-term financial goals

**Lesson 3: An Introduction to Investing: Being Realistic**

Objectives:
• Outline the steps in planning your savings strategy
• Computationally compare the differences between short-term and long-term financial goals
• Calculate the significant impacts of long-term financial goals

**Lesson 4: An Introduction to Investing: Risk**

Objectives:
• Identify the relationship between risk and reward
• Compute why high-risk investments do not make good savings instruments
• Calculate the differences diversity can have in your savings program

**Lesson 5: Diversifying Your Savings (two-day lesson)**

Objectives:
• Identify the relationship between risk and reward
• Compute why high-risk investments do not make good savings instruments
• Calculate the differences diversity can have in a savings program

**Lesson 6: An Introduction to Investing: Stock Market**
Lesson 7: Get It in Writing: Renting

Objectives:
- Identify why it's important to get all your agreements in writing
- Differentiate between negotiable agreements and unilateral contracts
- Practice how to write basic contracts
- Calculate the financial impact of different types of contracts

Lesson 8: Get It in Writing: Unilateral Contracts

Objectives:
- Identify why it's important to get all your agreements in writing
- Differentiate between negotiable agreements and unilateral contracts
- Practice how to write basic contracts
- Calculate the financial impact of different types of contracts

Lesson 9: The Internet Is Your Friend: Online Banking

Objectives:
- Calculate the advantages of online banking
- Identify the financial benefits of direct deposit and paying bills online
- Determine the time and cost savings of using computer-based financial software programs to help you manage finances

Lesson 10: The Internet Is Your Friend: Direct Deposit

Objectives:
- Calculate some of the advantages of online banking
- Identify the financial benefits of direct deposit and paying bills online
- Determine the time and cost savings of using computer-based financial software programs to help manage finances

Lesson 11: The Internet Is Your Friend: Financial Software

Objectives:
- Calculate some of the advantages of online banking
- Identify the financial benefits of direct deposit and paying bills online
- Determine the time and cost savings of using computer-based financial software programs to help manage finances

Lesson 12: Review: Money's Many Uses

Objectives:
- Review the important concepts presented in the Consumer Math course by completing calculations involving a variety of financial situations
- Identify ways you have already changed your thinking involving your finances
- Plan your future financial activities

Lesson 13: Review: Planning Ahead and Contracts

Objectives:
- Review the important concepts presented in the Consumer Math course by completing calculations involving a variety of financial situations
- Identify ways you have already changed your thinking involving your finances
- Plan your future financial activities

Lesson 14: Unit Review

Objectives:
- Calculate the amounts needing to be saved over various periods of time
- Compare the effect of different interest rates on savings
Lesson 15: Unit Test

Unit 5: Review

This unit reviews the information taught in Units 1–4 in preparation for the course final. You will review key concepts from Unit 1, such as the difference between secured and unsecured debt, the benefits of maintaining good credit, and the effects these items have on the interest rates you pay. The review for Unit 2 focuses on the development of a budget and the impact a second job (or in your case, a part-time job) can have on your ability to save. The review for Unit 3 revisits how to increase your income by obtaining a job, a part-time job, or gaining more education. You will also review additional ways you can reduce your spending through sharing of expenses by doing such things as carpooling or buying items in bulk. Lastly, you will reexamine Unit 4, which looks in more detail at developing a savings plan, being realistic about your goals, and the importance of contracts to your financial well-being. Key vocabulary from these units includes appreciation, assets, depreciation, educational attainment, part-time job, median income, down payment, and closing costs. Mathematical skills that are important in this review include the ability to work with money using addition, subtraction, multiplication, and division—computing your net hourly income to computing how many hours you must work to purchase an item or meet a goal.

Objectives:
- Review concepts presented in Unit 1: Debt vs. Saving
- Review concepts presented in Unit 2: Budgeting
- Review concepts presented in Unit 3: Finances
- Review concepts presented in Unit 4: Savings and Financial Planning
- Study for the final exam

Lesson 1: Review: Debt vs. Saving

Lesson 2: Review: Budgeting

Lesson 3: Review: Finances

Lesson 4: Review: Savings and Financial Planning

Unit 6: Final Exam

In this unit, you will take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes before you begin to review.

Objectives:
- Identify strategies that you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, answers to lesson questions, and key vocabulary terms

Lesson 1: Consumer Math B Final Exam
GEOMETRY A
Geometry A

This is the first of two courses that comprise Geometry. Throughout the course, the student will use virtual manipulatives and tools to explore the principles of logic, proofs, and constructions. The student will use the midpoint and distance formulas to solve a variety of problems involving the coordinate plane. The student will also study parallel and perpendicular lines, including special angle pairs. The student will explore transformations in the coordinate plane and apply them to other geometrical concepts. This course will conclude with the use of triangle concepts to find angle measures, prove triangles congruent, and discover relationships within one and two triangles. Throughout the course, the student will learn concepts through a variety of instructional strategies, solve real-world applications, and complete an assortment of activities.

Unit 1: Focus on Success in Geometry

In this unit, you will focus on ways to think about and approach geometry. You will learn how to set personal goals, establish study strategies that reduce anxiety, and review ways to be an active learner. The goal of this unit is to help you establish a positive mindset at the start of the course. This includes understanding how effort impacts goal obtainment, appreciating the importance of taking initiative with learning, and embracing the many resources available to help you throughout the course, such as your fellow students, your teacher, online tools, and your Learning Coach.

Objectives:
- Use strategies such as self-assessment and reflection in order to improve mathematical performance
- Distinguish between effort-based and ability-based models of learning
- Assess personal readiness for study and learning
- Use resources to assist with goal-setting and attainment

Lesson 1: Get in Shape for Geometry

Objectives:
- Examine organizational skills and learning strategies
- Set goals in the context of mathematical learning
- Reflect on strengths, weaknesses, and the value of goal-setting
- Distinguish between effort-based and ability-based models of learning

Lesson 2: Resources for Success

Objectives:
- Identify the various resources that can be used to promote active learning
- Discuss strategies for using resources effectively

Unit 2: Tools of Geometry

This unit introduces various topics in geometry. The beginning of the unit involves representing three-dimensional solid figures using nets, isometric drawings, and orthographic drawings. Special drawing techniques are introduced, such as slanted lines to represent three-dimensional perspective and dashed lines to represent hidden lines. An introduction to basic geometry terms such as points, lines, and planes is included. These are introduced as the building blocks of geometry on which all other geometry terms are defined. Postulates and axioms are introduced as well as naming techniques.

Measuring segments and angles are introduced along with the Ruler Postulate, Segment Addition Postulate, Protractor Postulate, and Angle Addition Postulate. Types of angles as well as special angle pairs and their relationships are included. The degree unit is introduced and the use of a protractor to find angle measure is included. A ruler is also used to find segment length. Problems involving algebra, such as solving linear equations, are used to find segment lengths and angle measures. The concept of creating constructions without the use of measurement by using only a straightedge and protractor is introduced in this unit. Four basic constructions are included, such as constructing congruent segments, congruent angles, perpendicular bisectors, and angle bisectors. These constructions will be used to create other constructions, such as an equilateral triangle. They will also be used to solve problems, such as creating a 45° angle.
The unit concludes with finding the midpoint of segments on a number line and on a coordinate plane using the midpoint formulas. The distance formula is used to find the distance between two points in a coordinate plane. Algebra skills are reviewed as necessary for solving problems using midpoint and distance formulas. Other formulas included at the end of the unit are formulas used to find perimeter, circumference, and area of geometric figures such as squares, rectangles, triangles, and circles. The area of a region is also explored.

Many new vocabulary terms associated with the topics are included. A variety of real-world applications are embedded throughout the unit. A variety of activities are also used to enhance instruction, such as BrainPOP® movies, Gizmos, Discovery Education™ streaming movies, SkillsTutor™, and PowerGeometry. Assessments in this unit include quick checks, quizzes, a discussion on how math is used in daily life, and a unit test.

Objectives:
- Make nets and drawings of three-dimensional figures
- Understand basic terms and postulates of geometry
- Find and compare lengths of segments and measures of angles
- Identify special angle pairs and use their relationships to find angle measures; Make basic constructions using a straightedge and a compass
- Find the perimeter, circumference, and area of basic shapes

Lesson 1: Nets and Drawings for Visualizing Geometry (two-day lesson)

Objectives:
- Make nets and drawings of three-dimensional figures

Lesson 2: Points, Lines, and Planes (two-day lesson)

Objectives:
- Understand basic terms and postulates of geometry

Lesson 3: Measuring Segments

Objectives:
- Find and compare lengths of segments

Lesson 4: Measuring Angles

Objectives:
- Find and compare the measures of angles

Lesson 5: Exploring Angles

Objectives:
- Identify special angle pairs and use their relationships to find angle measures

Lesson 6: Basic Constructions (two-day lesson)

Objectives:
- Make basic constructions using a straightedge and a compass
Lesson 7: Midpoint and Distance in the Coordinate Plane (two-day lesson)

Objectives:
- Find the midpoint of a segment
- Find the distance between two points in the coordinate plane

Lesson 8: Perimeter, Circumference, and Area

Objectives:
- Find the perimeter or circumference of basic shapes
- Find the area of basic shapes

Lesson 9: Tools of Geometry Unit Review (two-day lesson)

Objectives:
- Review lesson material from Tools of Geometry to prepare for the unit test

Lesson 10: Tools of Geometry Unit Test

Unit 3: Reasoning and Proof

This unit focuses on reasoning and writing formal proofs. You will explore conditional and biconditional statements. The conclusion of the unit introduces two types of formal proofs, two-column proofs and paragraph proofs. Finally, you will participate in a discussion on biconditionals and definitions.

Objectives:
- Write high-quality definitions using biconditionals
- Connect reasoning in algebra and geometry
- Prove and apply theorems about angles

Lesson 1: Conditional Statements

Objectives:
- Recognize conditional statements and their parts
- Write converses, inverses, and contrapositives of conditionals

Lesson 2: Biconditionals and Definitions

Objectives:
- Write biconditionals and recognize good definitions

Lesson 3: Reasoning in Algebra and Geometry (two-day lesson)

Objectives:
- Connect reasoning in algebra and geometry

Lesson 4: Proving Angles Congruent (two-day lesson)

Objectives:
- Prove and apply theorems about angles

Lesson 5: Reasoning and Proof Unit Review (two-day lesson)

Objectives:
Lesson 6: Reasoning and Proof Unit Test

Unit 4: Parallel and Perpendicular Lines

In this unit, you will explore concepts associated with parallel and perpendicular lines. The unit begins with identifying parallel, perpendicular, and skew lines. Parallel and perpendicular planes will also be introduced, as well as the special types of angles formed by two lines and a transversal. You will participate in a discovery activity that explores special properties of angles formed by two parallel lines and a transversal. The theorems and postulate for the special angle pairs will be proven and used to find angle measures. Then the converse of these theorems and postulate are introduced and used to prove lines parallel. Different forms of proofs such as two-column, paragraph, and flow-proofs involving parallel and perpendicular lines will be included. Theorems involving triangles are also introduced, such as the triangle angle-sum theorem and triangle exterior angle theorem. New constructions involving parallel and perpendicular lines are then introduced, as well as constructions involving special quadrilaterals and a regular polygon inscribed in a circle.

Activities throughout the unit include dynamic online activities, BrainPOP® movies, Gizmos, SkillsTutor™, and Teachlet® tutorials. Practice opportunities such as online practice, textbook problems, journal problems, and worksheets are included. Assessments are included throughout the unit in the form of Quick Checks, quizzes, a unit test, and a portfolio involving constructions.

Objectives:
- Identify relationships between figures in space and angles formed by two lines and a transversal
- Prove theorems about parallel lines and use parallel lines to prove a theorem about triangles
- Use properties of parallel lines to find angle measures
- Determine whether two lines are parallel or perpendicular
- Construct parallel and perpendicular lines

Lesson 1: Lines and Angles (two-day lesson)

Objectives:
- Identify relationships between figures in space
- Identify angles formed by two lines and a transversal

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Lesson 2: Properties of Parallel Lines (two-day lesson)

Objectives:
- Prove theorems about parallel lines
- Use properties of parallel lines to find angle measures

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Lesson 3: Proving Lines Parallel (two-day lesson)

Objectives:
- Determine whether two lines are parallel
- Write a flow proof to prove lines are parallel

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Lesson 4: Parallel and Perpendicular Lines

Objectives:
- Relate parallel and perpendicular lines

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Lesson 5: Lines and Triangles
Objectives:
• Use parallel lines to prove a theorem about triangles
• Find measures of angles of triangles

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Lesson 6: Constructing Parallel and Perpendicular Lines (two-day lesson)

Objectives:
• Construct parallel and perpendicular lines
• Construct special quadrilaterals and a regular polygon inscribed in a circle

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Lesson 7: Constructions

Objectives:
• Perform constructions using a straightedge and a compass.

Lesson 8: Parallel and Perpendicular Lines Unit Review (two-day lesson)

Objectives:
• Review lesson material associated with parallel and perpendicular lines to prepare for the unit test

Lesson 9: Parallel and Perpendicular Lines Unit Test

Unit 5: Transformations

Concepts related to transformations are explored in this unit. Students will explore translations, reflections (including glide reflection and compositions of reflections), rotations, and dilations. Students will identify, find, and compose transformations both on and off the coordinate plane. Students will identify isometries as well as the type of symmetry in figures and three-dimensional objects. Students will also use reflection to minimize distance, find angles of rotation, and scale factor for dilation.

A variety of activities are used in lessons throughout the unit to aid instruction. Activities involving the textbook, Teachlet® tutorials, and movie clips provide information on concepts and using concepts to solve problems. Real-world examples are incorporated into each lesson. A variety of worksheets, such as question worksheets based on examples in the textbook, puzzle worksheets, and practice worksheets involving problem-solving are used to practice concepts and review vocabulary. Math writing journal activities as well as online interactive activities provide discovery learning opportunities for students.

A variety of assessment tools are incorporated into each lesson. Online practices, self-check activities, and feedback are used throughout. Assessments such as quick checks, quizzes, and a unit test appear at the end of each lesson. A portfolio will require students to make connections between transformations and corporate logos.

Objectives:
• Identify and classify isometries
• Describe, find, and compose figure translations
• Identify, find, and compose figure reflections, and use reflection to minimize a distance
• Identify, find, and compose compositions of reflections, including glide reflection
• Identify, find, and compose figure rotations and find angle rotation

Lesson 1: Translations (two-day lesson)

Objectives:
• Identify isometries
• Find translation images of figures

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Lesson 2: Reflections
Objectives:
- Find reflection images of figures

Lesson 3: Rotations (two-day lesson)
Objectives:
- Draw and identify rotation images of figures

Lesson 4: Symmetry (two-day lesson)
Objectives:
- Identify the type of symmetry in a figure

Lesson 5: Dilations (two-day lesson)
Objectives:
- Understand dilation images of figures

Lesson 6: Compositions of Isometries (two-day lesson)
Objectives:
- Find compositions of reflections, including glide reflections
- Classify isometries

Lesson 7: Personal Logo
Objectives:
- Find examples of transformations in the real world.
- Create a personal logo demonstrating two transformations.

Lesson 8: Transformations Unit Review (two-day lesson)
Objectives:
- Review concepts associated with transformations to prepare for the unit test

Lesson 9: Transformations Unit Test

Unit 6: Congruent Triangles
This unit covers concepts associated with congruent triangles, such as identifying corresponding parts of congruent triangles, identifying isosceles and equilateral triangles, proving triangles congruent, and proving parts of triangles congruent. Lessons build on your understanding and skills related to angles and triangles. Visualization skills will be used for overlapping triangles. Theorems and postulates such as SSS, SAS, ASA, AAS, and HL will be introduced throughout the unit. Corresponding parts of congruent triangles are congruent (CPCTC) are used to prove parts of triangles congruent. You will use and apply properties of isosceles and equilateral triangles. You will also prove two triangles congruent using other congruent triangles.

A variety of methods will be used throughout the unit for instruction, practice, and review of concepts. You will complete worksheets and online practice for various concepts. Math writing journal activities require you to relate concepts to real-world applications and apply your knowledge in order to respond to thought-provoking questions. Online and interactive activities, such as Teachlet® tutorials, SkillsTutor™ exercises, and Gizmos will be used to further your understanding of concepts.
Various assessments will be used throughout the unit to measure your progress such as Quick Checks, quizzes, and a unit test. Students will also complete a unit portfolio which involves using various tools to construct congruent triangles.

Objectives:
- Identify congruent figures and corresponding parts of congruent figures
- Prove that two triangles are congruent using various methods such as SSS, SAS, ASA, AAS, and HL
- Prove that parts of two triangles are congruent
- Identify and use properties of isosceles and equilateral triangles

**Lesson 1: Congruent Figures (two-day lesson)**

Objectives:
- Recognize congruent figures and their corresponding parts

**Lesson 2: Triangle Congruence by SSS and SAS (two-day lesson)**

Objectives:
- Prove two triangles congruent using the SSS and SAS Postulates

**Lesson 3: Triangle Congruence by ASA and AAS (two-day lesson)**

Objectives:
- Prove two triangles congruent using the ASA Postulate and the AAS Theorem

**Lesson 4: Using Corresponding Parts of Congruent Triangles**

Objectives:
- Use triangle congruence and corresponding parts of congruent triangles to prove that parts of two triangles are congruent

**Lesson 5: Isosceles and Equilateral Triangles**

Objectives:
- Use and apply properties of isosceles and equilateral triangles

**Lesson 6: Congruence in Right Triangles (two-day lesson)**

Objectives:
- Prove right triangles congruent using the Hypotenuse-Leg Theorem

**Lesson 7: Congruence in Overlapping Triangles (two-day lesson)**

Objectives:
- Identify congruent overlapping triangles
- Prove two triangles congruent using other congruent triangles

**Lesson 8: Exploring Congruent Triangles**

Objectives:
- Illustrate SSS, SAS, and ASA using string and a protractor.
- Create a method of illustrating AAS using string and a protractor.
Lesson 9: Congruent Triangles Unit Review (two-day lesson)

Objectives:
- Review lesson material associated with congruent triangles to prepare for the unit test

Lesson 10: Congruent Triangles Unit Test

Unit 7: Triangles

In this unit, you will discover and explore concepts involving relationships within triangles. You will expand on the skills learned in previous units, such as using the midpoint formula to find the midsegments of triangles and the distance formula to examine relationships in triangles. You will learn new theorems, such as the Triangle Midsegment Theorem, Perpendicular Bisector Theorem, and Angle Bisector Theorem, as well as theorems related to concurrency in triangles and triangle inequality. You will also explore relationships within a triangle using the Corollary to the Triangle Exterior Angle Theorem as well as those theorems related to triangle inequality. Finally, you will identify and use properties of midsegments, perpendicular bisectors, angle bisectors, medians, altitudes, and inequalities involving angles and sides of triangles through a variety of activities. Activities in this unit include Teachlet® tutorials, worksheets, writing journal activities, Gizmos, and online interactive activities aligned to the textbook through PowerGeometry. You will take a variety of assessments throughout the unit to gauge your comprehension of concepts. You will get instant feedback from self-check assessments embedded in each lesson. Other assessments include Quick Checks, quizzes, and a unit test.

Objectives:
- Identify and use properties of triangles, such as midsegments, perpendicular bisectors, angle bisectors, medians, and altitudes
- Use indirect reasoning to write proofs
- Use and apply inequalities in one triangle involving angles and sides

Lesson 1: Midsegments of Triangles (two-day lesson)

Objectives:
- Use properties of midsegments to solve problems

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Lesson 2: Perpendicular and Angle Bisectors (two-day lesson)

Objectives:
- Use properties of perpendicular bisectors and angle bisectors

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Lesson 3: Bisectors in Triangles

Objectives:
- Identify properties of perpendicular bisectors and angle bisectors

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Lesson 4: Medians and Altitudes (two-day lesson)

Objectives:
- Identify properties of medians and altitudes of a triangle

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Lesson 5: Inequalities in One Triangle

Objectives:
- Use inequalities involving angles and sides of triangles

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Lesson 6: Triangles Unit Review (two-day lesson)

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Objectives:
- Review lesson material associated with relationships within triangles to prepare for the unit test

Lesson 7: Triangles Unit Test

Unit 8: Geometry A Semester Exam

In this unit, you will have the opportunity to prepare for and take the semester exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you with both the objective questions and essays.

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, key words and vocabulary terms, and all important concepts that may be covered in this exam

Lesson 1: Geometry A Semester Review (two-day lesson)

Lesson 2: Geometry A Semester Exam
GEOMETRY B
Geometry B

This is the second of two courses that comprise Geometry. Throughout the course, the student will use virtual manipulatives and tools to explore area, surface area, and volume, and study the concept of similarity as it relates to various figures. The student will begin with an exploration of polygons, with a focus on different types of quadrilaterals. The student will use Trigonometry and right triangle concepts, such as 30-60-90, 45-45-90, and the Pythagorean Theorem to solve problems. The student will learn to use formulas to find the areas of a variety of two-dimensional shapes. This course concludes with an exploration of concepts related to circles, such as arcs, angles, and intersecting lines such as chords, secants, and tangents.

Throughout the course, the student will learn concepts through a variety of instructional strategies, solve real-world applications, and complete an assortment of activities.

Unit 1: Review of Geometry A

In this unit, you will review the major concepts from Geometry A that are applicable to Geometry B. These include the basic tools of geometry, reasoning and proof, properties of parallel and perpendicular lines, and working with congruent triangles.

Objectives:
- Review the basic terms of geometry
- Review conditional and biconditional statements
- Review properties of parallel and perpendicular lines
- Review finding triangles congruent

Lesson 1: Review of the Tools of Geometry

Objectives:
- Review the basic terms and postulates of geometry
- Identify special angle pairs and solve problems involving them
- Solve problems involving midpoint and distance in the coordinate plane
- Calculate the perimeter (or circumference) and the area of basic shapes

Lesson 2: Review of Reasoning and Proof

Objectives:
- Write conditional statements and their converses, inverses, and contrapositives
- Write biconditional statements
- Prove statements about angles using properties

Lesson 3: Review of Parallel and Perpendicular Lines

Objectives:
- Describe angle pairs formed by parallel lines and a transversal
- Determine whether lines are parallel, perpendicular, or neither
- Use relationships between lines to prove statements

Lesson 4: Review of Congruent Triangles

Objectives:
- Identify corresponding parts in congruent triangles
- Prove triangles congruent using postulates and theorems

Unit 2: Polygons and Quadrilaterals

In this unit, you will examine properties of quadrilaterals and use the properties to prove and classify special types of quadrilaterals such as parallelograms, rectangles, rhombuses, squares, trapezoids, and kites. You will use properties of parallel and perpendicular lines and diagonals to classify quadrilaterals. You will also use theorems to find angle measures of polygons, both interior and exterior angles. You will explore geometry in the coordinate plane through classifying polygons in the coordinate plane with formulas such as slope, midpoint, and distance as well as naming coordinates using variables for a general polygon and proving theorems using coordinate proofs.

You will complete various activities throughout the unit to apply your knowledge. You
will create and use Venn diagrams to show the relationships among polygons, equilateral polygons, equiangular polygons, and regular polygons. You will also complete interactive Gizmos to explore angle sums of polygons and properties of special parallelograms, and to classify quadrilaterals. You will watch BrainPOP® movies and Teachlet® tutorials throughout the unit to aid instruction. Finally, you will engage in online practice and math writing journal activities to further reinforce understanding of various concepts.

There are self-check activities, feedback, and assessments embedded throughout the unit. Assessments include a portfolio where you will create a blueprint using polygons, as well as quick checks, quizzes, and a unit test.

Objectives:
- Find the sum of the measures of the interior angles of a polygon
- Find the sum of the measures of the exterior angles of a polygon

Lesson 1: The Polygon-Angle Sum Theorems (two-day lesson)

Objectives:
- Find the sum of the measures of the interior angles of a polygon
- Find the sum of the measures of the exterior angles of a polygon

Lesson 2: Properties of Parallelograms

Objectives:
- Use relationships among sides and angles of parallelograms.
- Use relationships among diagonals of parallelograms.

Lesson 3: Proving That a Quadrilateral Is a Parallelogram (two-day lesson)

Objectives:
- Determine whether a quadrilateral is a parallelogram

Lesson 4: Properties of Rhombuses, Rectangles, and Squares

Objectives:
- Define and classify special types of parallelograms
- Use properties of diagonals of rhombuses and rectangles

Lesson 5: Conditions for Rhombuses, Rectangles, and Squares

Objectives:
- Determine whether a parallelogram is a rhombus or rectangle

Lesson 6: Trapezoids and Kites

Objectives:
- Verify and use properties of trapezoids and kites

Lesson 7: Polygons in the Coordinate Plane (two-day lesson)

Objectives:
- Classify polygons in the coordinate plane

Lesson 8: Applying Coordinate Geometry (two-day lesson)
Lesson 9: Proofs Using Coordinate Geometry (two-day lesson)

Objectives:
• Prove theorems using figures in the coordinate plane

Lesson 10: Blueprint Project

Objectives:
• Create a blueprint of an ideal room in your house using a coordinate plane
• Classify three of the shapes in your blueprint and justify your classification using theorems about quadrilaterals and triangles
• Use coordinates to calculate the perimeter and area of the room in your blueprint

Lesson 11: Polygons and Quadrilaterals Unit Review (two-day lesson)

Objectives:
• Review concepts associated with polygons and quadrilaterals to prepare for the unit test.

Lesson 12: Polygons and Quadrilaterals Unit Test

Unit 3: Similarity

In this unit on similarity, you will learn to use ratios to compare quantities, write proportions, and solve problems. You will also use ratios and proportions to determine whether two polygons are similar, to find unknown side lengths of similar figures, and to solve problems relating to scale factor. You will explore similar triangles and related postulates and theorems. Finally, you will use similarity to find indirect measurements in right triangles, as well as the relationship between segments and between lengths.

Objectives:
• Write ratios and proportions and use them to solve problems
• Identify similar polygons and the corresponding parts
• Prove triangles similar using AA~, SAS~, and SSS~
• Use proportions to find measurements in similar polygons

Lesson 1: Ratios and Proportions

Objectives:
• Write ratios and solve problems

Lesson 2: Similar Polygons (three-day lesson)

Objectives:
• Identify and apply similar polygons
• Identify similarity transformations and verify properties of similarity

Lesson 3: Proving Triangles Similar (two-day lesson)

Objectives:
• Use the AA Similarity Postulate and the SAS Similarity and SSS Similarity Theorems
• Use similarity to find indirect measurements
Lesson 4: Similarity in Right Triangles (two-day lesson)

Objectives:
- Find and use relationships in similar right triangles

Lesson 5: Proportions in Triangles

Objectives:
- Use the Side-Splitter Theorem and the Triangle-Angle-Bisector Theorem

Lesson 6: Similarity Unit Review (two-day lesson)

Objectives:
- Review lesson material associated with similarity to prepare for the unit test

Lesson 7: Similarity Unit Test

Unit 4: Right Triangles and Trigonometry

In this unit, you will explore concepts related to right triangles. You will use the Pythagorean Theorem and explore the concept of a Pythagorean triple, as well as properties of special right triangles. You will use trigonometric ratios to find side lengths and angle measures of right triangles. To solve real-world scenarios, you will use angles of elevation and depression. Your activities include a class discussion involving ramp building codes.

Objectives:
- Find missing length and angle measures in right triangles using the Pythagorean Theorem
- Identify properties of 30°–60°–90° and 45°–45°–90° triangles and the trigonometric functions sine, cosine, and tangent
- Use theorems to classify triangles as right, obtuse, or acute
- Identify and use angles of elevation and depression to solve problems

Lesson 1: The Pythagorean Theorem and Its Converse

Objectives:
- Use the Pythagorean Theorem and its converse

Lesson 2: Special Right Triangles (two-day lesson)

Objectives:
- Use the properties of 45°-45°-90° triangles and 30°-60°-90° triangles

Lesson 3: Trigonometry (two-day lesson)

Objectives:
- Use the sine, cosine, and tangent ratios to determine side lengths and angle measures in right triangles

Lesson 4: Angles of Elevation and Depression

Objectives:
- Use angles of elevation and depression to solve problems
Lesson 5: Law of Sines and Law of Cosines (two-day lesson)

Objectives:
- Use the Law of Sines
- Use the Law of Cosines in finding the measures of sides and angles of a triangle

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Lesson 6: Right Triangles and Trigonometry Unit Review (two-day lesson)

Objectives:
- Review lesson material associated with right triangles and trigonometry to prepare for the unit test

Lesson 7: Right Triangles and Trigonometry Unit Test

Unit 5: Area

In this unit, you will explore and find the area of polygons and circles. You will use formulas to find areas of regular polygons, parallelograms, triangles, trapezoids, rhombuses, kites, and circles, including parts of circles such as sectors and segments. You will use trigonometry to find the areas of regular polygons and triangles, as well as the area formula for a triangle given SAS. In addition, you will use 30°-60°-90° and 45°-45°-90° special triangles to find area. You will also learn and apply concepts related to regular polygons, including perimeter and area ratios of similar figures, as well as circle concepts like naming arcs, finding arc measure and length, and finding the circumference of a circle. You will use these concepts to find the area of composite figures and missing dimensions of figures, in addition to using them to solve real-world applications. Finally, you will complete a portfolio project relating the circumference of a circle to the total distance a car's tires can travel, and participate in a discussion about Heron's Formula.

Objectives:
- Use formulas to find the area of parallelograms, triangles, trapezoids, rhombuses, kites, regular polygons, and circles
- Use ratios to find the perimeter and area of similar polygons
- Use trigonometry to find the areas of regular polygons and triangles
- Find the measures of central angles, arc measure, arc length, and circumference of circles
- Use arc measure and arc length to find the areas of sectors and segments of circles

Lesson 1: Areas of Parallelograms and Triangles

Objectives:
- Find the area of parallelograms and triangles

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Lesson 2: Areas of Trapezoids, Rhombuses, and Kites (two-day lesson)

Objectives:
- Find the area of a trapezoid, rhombus, or kite

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Lesson 3: Areas of Regular Polygons

Objectives:
- Find the area of a regular polygon

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Lesson 4: Perimeters and Areas of Similar Figures

Objectives:
- Find the perimeters and areas of similar polygons
Lesson 5: Trigonometry and Area (two-day lesson)

Objectives:
- Find the areas of regular polygons and triangles using trigonometry

Lesson 6: Circles and Arcs

Objectives:
- Find the measures of central angles and arcs
- Find the circumference and arc length

Lesson 7: Areas of Circles and Sectors (two-day lesson)

Objectives:
- Find the areas of circles, sectors, and segments of circles

Lesson 8: Car Wheel Project

Objectives:
- Determine the number of rotations of a circle of a specified size it takes to cover a given distance

Lesson 9: Area Unit Review (two-day lesson)

Objectives:
- Review lesson material associated with area to prepare for the unit test

Lesson 10: Area Unit Test

Unit 6: Surface Area and Volume

This unit covers area and volume of three-dimensional solids. The unit begins with defining the polyhedron space figure, the parts of a polyhedron, and examining cross sections. Euler’s Formula is introduced and used to find the number of faces, vertices, or edges of a polyhedron. Students will explore and use formulas to find lateral areas, surface areas, and volume of three-dimensional solids, such as prisms, cylinders, pyramids, cones, and composite figures. Sphere terminology such as center, radius, diameter, great circle, hemispheres, and circumference are explored and defined. Students will use formulas to find the area and volume of spheres. The unit ends with exploring the areas and volumes of similar solids, including identifying similar solids, finding scale factor, and using area and volume ratios to solve problems.

Objectives:
- Recognize a polyhedron and its parts and cross sections
- Use Euler’s Formula to determine the number of faces, vertices, or edges of a polyhedron
- Find lateral area and surface area of a prism, cylinder, pyramid, cone, and sphere
- Find the volume of a prism, cylinder, pyramid, cone, and sphere
- Determine if two solids are similar

Lesson 1: Space Figures and Cross Sections

Objectives:
- Recognize polyhedrons and their parts
- Visualize cross sections of space figures

Lesson 2: Surface Areas of Prisms and Cylinders

Objectives:
Lesson 3: Surface Areas of Pyramids and Cones

Objectives:

• Find the surface area of a pyramid and a cone

Lesson 4: Volumes of Prisms and Cylinders (two-day lesson)

Objectives:

• Find the volume of a prism and the volume of a cylinder

Lesson 5: Volumes of Pyramids and Cones

Objectives:

• Find the volume of a pyramid and a cone

Lesson 6: Surface Areas and Volumes of Spheres

Objectives:

• Find the surface area and volume of a sphere

Lesson 7: Areas and Volumes of Similar Solids (two-day lesson)

Objectives:

• Compare and find the areas and volumes of similar solids

Lesson 8: Cereal Box Design Project

Objectives:

• Use properties of surface area and volume to improve packaging design

Lesson 9: Surface Area and Volume Unit Review (two-day lesson)

Objectives:

• Review lesson material associated with the surface area and volume to prepare for the unit test

Lesson 10: Surface Area and Volume Unit Test

Unit 7: Circles

This unit explores concepts related to circles, such as central angles, inscribed angles, and angles formed by intersecting lines—including chords, tangents, and secants. Students will examine the relationships between angles both inside and outside of a circle and the measure of the intercepted arcs. These relationships, as well as properties of tangents, will be used to solve problems involving angle measure, arc measure, and segment lengths. Students will also explore circles in the coordinate plane, including writing an equation of a circle in standard form. Using radius, circle center, or a point on the circle, students will graph circles in the coordinate plane and be able to identify circle center and radius in an equation of a circle in standard form.

A variety of instructional strategies and activities are used to engage students and enhance instruction. Such activities include online Teachlet tutorials, Gizmo activities, math writing journal activities, puzzles, and practice worksheets. Online practice, self-assessment, and problem feedback are included throughout the unit.
Objectives:
• Use properties of a tangent to a circle
• Use congruent chords, arcs, and central angles
• Use perpendicular bisectors to chords
• Find the measure of an inscribed angle
• Find the measure of an angle formed by a tangent and a chord

Lesson 1: Tangent Lines (two-day lesson)
Objectives:
• Use properties of a tangent to a circle

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Lesson 2: Chords and Arcs
Objectives:
• Use congruent chords, arc, and central angles
• Use perpendicular bisector to chords

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Lesson 3: Inscribed Angles
Objectives:
• Find the measure of an inscribed angle
• Find the measure of an angle formed by a tangent and a chord

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Lesson 4: Angle Measures and Segment Lengths
Objectives:
• Find the measures of angels formed by chords, secants, and tangents
• Find the lengths of segments associated with circles

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Lesson 5: Circles in the Coordinate Plane (two-day lesson)
Objectives:
• Write the equation of a circle
• Find the center and radius of a circle

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Lesson 6: Circles Unit Review (two-day lesson)
Objectives:
• Review lesson material associated with circles to prepare for the unit test

Lesson 7: Circles Unit Test

Unit 8: Geometry B Semester Exam
This unit reviews concepts from Semester B of the Geometry course. The unit begins with a review assignment which intends to help the student recall topics from Units 1 through 6. A vocabulary activity explores special terms and properties from the course. Two Quarter Tests are also given for students to practice the concepts from this semester in a more formal format. The assessment is included at the conclusion of the unit in the form of the Semester Exam.

Lesson 1: Semester B Exam Review (two-day lesson)

Lesson 2: Semester B Exam
APPENDIX A
CURRICULUM

A.2 COURSE GUIDES

c. SCIENCE
This document is part of Appendix A: Curriculum.

It includes course guides for each Science class for students in Kindergarten through Grade 12.

- Science K A
- Science K B
- Science 1 A
- Science 1 B
- Science 2 A
- Science 2 B
- Science 3 A
- Science 3 B
- Science 4 A
- Science 4 B
- Science 5 A
- Science 5 B
- Science 6 A
- Science 6 B
- Science 7 A
- Science 7 B
- Science 8 A
- Science 8 B
- Biology A
- Biology B
- Chemistry A
- Chemistry B
- Earth Science A
- Earth Science B
- Physical Science A
- Physical Science B

Course guides provide detailed information on the curriculum including course descriptions, unit summaries, lesson objectives, activities, and assessment types. Course guides include information on:

- Planned instruction (provided in the unit summary of each unit within individual Course Guides)
- Course objectives (provided in the unit and lesson objectives within individual Course Guides)
- Activities (provided in the unit summary and lesson objectives of each unit within individual Course Guides)
SCIENCE K A
In this course, the student will explore the nature of science and how to solve problems, as well as investigate living and nonliving things. The student will learn how to study the surrounding world by observing, collaborating, and sharing with others. Using illustrations and labels, the student will identify the steps used to solve problems and use these steps to plan, design, and test a solution to a problem. Finally, the student will examine, describe, compare, and analyze the characteristics of living and nonliving things in order to complete portfolio assessments.

**Unit 1: The Nature of Science**

In this unit, your student will gain an understanding of what science is. Your student will learn how to study the world around him by making observations using his five senses. He will learn that working with others to ask questions and seek answers is an important part of the scientific process. In order to more accurately share his work with others, your student will create visual representations. He will also learn about the types of tools used for observation, data collection, and safety. This unit will culminate with an investigation throughout which your student will demonstrate the important steps involved in the scientific process.

Objectives:
- Formulate questions and make accurate observations using the five senses
- Identify the importance of collaborating with others to perform a fair scientific test
- Discover ways to record, explain, and share information about observations and tests
- Demonstrate how to use tools to make observations and collect information
- Select the appropriate tools and safety rules to use when conducting science experiments

**Lesson 1: What Is Science?**

Objectives:
- Define science
- Identify the five senses as different methods of observation
- Make accurate observations using the five senses
- Discuss and illustrate observations made during a nature walk

**Lesson 2: What Questions Can You Ask?**

Objectives:
- Define scientist
- Explain the advantages of working together
- Observe an environment
- Ask and answer questions during observation

**Lesson 3: How Do You Observe?**

Objectives:
- Construct accurate written or illustrated observations using the five senses
- Determine how and when each sense will be helpful in observations

**Lesson 4: How Do You Learn Together?**

Objectives:
- Define cooperation
- Explain the importance of cooperating with others to perform a fair test
- Distinguish between a fair test and an unfair test

**Lesson 5: How Do You Share What You Learn?**

Objectives:
- Discover ways to record, explain, and share information about observations and tests
- Share information through illustrations, charts, speech, and/or compositions

**Lesson 6: What Do You Use to Observe?**

Objectives:
- Identify scientific tools
- Demonstrate how to use tools to make observations and collect information

**Lesson 7: How Do You Stay Safe?**

Objectives:
- Select the appropriate tools to use for making safe observations during a science experiment
- Identify and recognize the importance of safety rules children should use when conducting science experiments
Lesson 8: Bubble Experiment (two-day lesson)

Objectives:
• Formulate questions and make accurate observations using the five senses
• Identify the importance of collaborating with others to perform a fair scientific test
• Discover ways to record, explain, and share information about observations and tests
• Demonstrate how to use tools to make observations and collect information
• Select the appropriate tools and safety rules children should use when conducting science experiments

Lesson 9: The Nature of Science Review

Objectives:
• Formulate questions and make accurate observations using the five senses
• Identify the importance of collaborating with others to perform a fair scientific test
• Discover ways to record, explain, and share information about observations and tests
• Demonstrate how to use tools to make observations and collect information
• Select the appropriate tools and safety rules to use when conducting science experiments

Lesson 10: The Nature of Science Unit Test

Objectives:
• Identify the importance of collaborating with others to perform a fair scientific test
• Discover ways to record, explain, and share information about observations and tests
• Demonstrate how to use tools to make observations and collect information
• Select the appropriate tools and safety rules to use when conducting science experiments

Unit 2: Solve Problems

In this unit, your student will learn how to solve problems. She will learn the problem-solving steps of planning, designing, and testing in order to find a solution. Your student will also have the opportunity to share her solutions with others. This unit will culminate with a portfolio assessment involving the scientific process.

Objectives:
• Identify a problem and predict possible solutions
• Plan, create, and conduct an investigation
• Construct accurate observations using the five senses
• Record, display, and share information with others using drawings, photos, writings, and oral presentations

Lesson 1: How Can You Solve Problems?

Objectives:
• Identify a problem and predict possible solutions
• Record, display, and share information with others using drawings, photos, writings, and oral presentations

Lesson 2: What Problems Can You Solve?

Objectives:
• Identify a problem and predict possible solutions
• Use illustrations to record observations and demonstrate possible solutions

Lesson 3: How Can You Make a Plan?

Objectives:
• Use illustrations, labels, and writing to make a plan for solving a problem

Lesson 4: How Can You Share Your Ideas With Others?

Objectives:
• Use illustrations, labels, and writing to make a plan for solving a problem

Lesson 5: Lifting Experiment (two-day lesson)

Objectives:
• Identify a problem and predict possible solutions
Lesson 6: Solve Problems Review

Objectives:
- Identify a problem and predict possible solutions
- Plan, create, and conduct an investigation
- Construct accurate observations using the five senses
- Select and use appropriate tools to accurately conduct an investigation
- Record, display, and share information with others using drawings, photos, writings, and oral presentations

Lesson 7: Solve Problems Unit Test

Objectives:
- Identify a problem and predict possible solutions
- Plan, create, and conduct an investigation
- Construct accurate observations using the five senses
- Select and use appropriate tools to accurately conduct an investigation
- Record, display, and share information with others using drawings, photos, writings, and oral presentations

Unit 3: Living and Nonliving Things

In this unit, your student will explore the characteristics of living and nonliving things. Through comparisons, readings, and pictorial representations; he will learn that non-living things do not move or change on their own, and that living things can grow, change and move. He will compare and contrast different animals and plants and identify the essential needs of all living things. At the end of the unit, your student will complete a portfolio assessment that enables him to demonstrate his understanding of living and nonliving things.

Objectives:
- Describe characteristics of living and nonliving things
- Differentiate between living and nonliving things
- Identify the essential needs of all living things
- Compare characteristics of animals that make them alike and different from other animals
- Compare characteristics of plants that make them alike and different from other plants

Lesson 1: Can You Talk about Living and Nonliving Things?

Objectives:
- Describe characteristics of living and nonliving things
- Differentiate between living and nonliving things

Lesson 2: What Are Nonliving Things?

Objectives:
- Describe characteristics of living things
- Differentiate between living and nonliving things

Lesson 3: What Are Living Things?

Objectives:
- Describe characteristics of living things
- Differentiate between living and nonliving things

Lesson 4: What Do Living Things Need?

Objectives:
- Identify the essential needs of all living things

Lesson 5: How Are Animals Alike and Different?

Objectives:
- Compare characteristics of animals that make them alike and different from other animals

Lesson 6: How Are Plants Alike and Different?

Objectives:
- Compare characteristics of plants that make them alike and different from other plants
Lesson 7: Plant and Animal Comparison (two-day lesson)

Objectives:
• Describe characteristics of living things
• Identify the essential needs of all living things
• Compare characteristics of animals that make them alike and different from other animals
• Compare characteristics of plants that make them alike and different from other plants
• Compare characteristics of plants and animals that make them alike and different from each other

Lesson 8: Living and Nonliving Things Review

Objectives:
• Describe characteristics of living things
• Differentiate between living and nonliving things
• Identify the essential needs of all living things
• Compare characteristics of animals that make them alike and different from other animals
• Compare characteristics of plants that make them alike and different from other plants
• Compare characteristics of plants and animals that make them alike and different from each other

Lesson 9: Living and Nonliving Things Unit Test

Objectives:
• Describe characteristics of living and nonliving things
• Differentiate between living and nonliving things
• Identify the essential needs of all living things
• Compare characteristics of animals that make them alike and different from other animals
• Compare characteristics of plants that make them alike and different from other plants
• Compare characteristics of plants and animals that make them alike and different from each other

Unit 4: Plants and Animals

In this unit, the student will relate her prior knowledge about plants and animals to investigate how plants and animals change as they grow. The student will recognize the characteristics in animals that are passed on from parents to their babies. These characteristics help animals grow and change as they adapt to their environment, whether it be land or water. These skills will be assessed in a portfolio assessment in which the student observes and collects data on how plants and animals depend on the land, air and water.

Objectives:
• Classify young animals and their parents
• Describe how animals, plants, and people change as they grow
• Distinguish between plants and animals that live on land and in water
• Observe and collect data to show the interdependence between plants, animals, humans, and the Earth

Lesson 1: How Do Living Things Change As They Grow?

Objectives:
• Describe how animals, plants, and people change as they grow

Lesson 2: How Are Animals Like Their Parents?

Objectives:
• Classify young animals and their parents
• Compare and contrast a baby animal with its parent

Lesson 3: How Do Animals Change?

Objectives:
• Classify young animals and their parents
• Describe how animals change as they grow

Lesson 4: How Do Plants Change?

Objectives:
• Describe how plants change as they grow using illustrations and writing
Lesson 5: How Do People Change?

Objectives:
- Describe how people change as they grow
SCIENCE K B
Science K B

In this course, the student will explore life, Earth, and physical science. The student will learn how to investi‌gate using critical thinking skills. The student will answer questions about the Earth and the sky. In the final chapter, physical science, the student will utilize inquiry methods to explore objects, matter, and mixtures. Throughout this course, the student will enhance skills in language arts, mathematics, and computer literacy. In portfolio assessments, students may choose to chart weather observations over a period of time; observe and collect data on how plants and animals depend on the land, air and water; or observe and compare solids and liquids at room temperature.

Unit 1: More Plants and Animals

In this unit, the student will relate his prior knowledge about plants and animals to investigate how plants and animals change as they grow. The student will recognize the characteristics in animals that are passed on from parents to their babies. These characteristics help animals grow and change as they adapt to their environment, whether it be land or water. These skills will be assessed in a portfolio assessment in which the student observes and collects data on how plants and animals depend on the land, air, and water.

Objectives:
- Classify young animals and their parents
- Describe how animals, plants, and people change as they grow
- Distinguish between plants and animals that live on land and in water
- Observe and collect data to show the interdependence between plants, animals, humans, and the Earth

Lesson 1: Which Plants and Animals Live on Land?

Objectives:
- Identify plants and animals that live on land
- Define what a habitat is
- Explain how people are changing their environment and tell what people can do to protect it
- Identify how an animal can change its own environment

Lesson 2: Which Plants and Animals Live in Water?

Objectives:
- Identify plants and animals that live in the water
- Define what a habitat is
- Explain how people are changing their environment and tell what people can do to protect it

Lesson 3: My Animal and Habitat Report (two-day lesson)

Objectives:
- Describe how animals, plants, and people change as they grow
- Describe an animal’s habitat
- Gather and share information about an animal and its habitat

Lesson 4: More Plants and Animals Review

Objectives:
- Classify young animals and their parents
- Describe how animals, plants, and people change as they grow
- Distinguish between plants and animals that live on land and water
- Observe and collect data to show the interdependence between plants, animals, and the Earth

Lesson 5: More Plants and Animals Unit Quiz

Objectives:
- Classify young animals and their parents
- Describe how animals, plants, and people change as they grow
- Distinguish between plants and animals that live on land and water
- Observe and collect data to show the interdependence between plants, animals, and the Earth

Unit 2: Earth and Sky

In this unit, your student will investigate Earth and the sky. She will be able to identify the resources that make up Earth and recognize how the sky changes from day to night. In addition, she will acknowledge the similarities and differences that occur in weather patterns. Lastly, your student will utilize math skills to collect and analyze weather data in a portfolio assessment. This integration of math and science skills will help your student make the real-world connection necessary to develop critical thinking skills.

Objectives:
- Investigate the Earth’s covering
- Identify characteristics of the day and night sky
- Identify characteristics of each season
- Summarize the relationship between the sun’s position and the time of day
- Compare and contrast weather patterns

Lesson 1: Introduction: What Are Earth and the Sky Like

Objectives:
- Identify objects found in the sky
Lesson 2: What Makes Up Earth?

Objectives:
• Investigate Earth’s covering
• Describe ways people interact with Earth’s features

Lesson 3: What Can You See in the Day Sky?

Objectives:
• Describe characteristics of the day sky

Lesson 4: How Does the Sun Seem to Move?

Objectives:
• Summarize the relationship between the sun’s position and the time of day

Lesson 5: What Can You See in the Night Sky?

Objectives:
• Describe characteristics of the night sky
• Compare and contrast the day and night sky

Lesson 6: What Are Some Kinds of Weather?

Objectives:
• Compare and contrast weather patterns
• Collect weather data

Lesson 7: What Are the Seasons?

Objectives:
• Identify the four seasons
• Compare and contrast weather patterns within the four seasons
• Identify and describe different types of severe weather
• Explain the importance of a weather forecast
• Collect weather data

Lesson 8: Reporting on Today’s Weather! (two-day lesson)

Objectives:
• Compare and contrast weather patterns
• Collect and analyze weather data
• Develop and create a forecast of the weather

Lesson 9: Earth and Sky Review

Objectives:
• Investigate the Earth’s covering
• Identify characteristics of the day and night sky and seasons
• Summarize the relationship between the sun’s position and the time of day
• Compare and contrast weather patterns
• Collect and analyze weather data

Lesson 10: Earth and Sky Unit Test

Objectives:
• Investigate the Earth’s covering
• Identify characteristics of the day and night sky and seasons
• Summarize the relationship between the sun’s position and the time of day
• Compare and contrast weather patterns
• Collect and analyze weather data

Unit 3: All About Objects

This unit is the foundation of physical science. As the student progresses through the lessons and activities, he will see how his five senses can help him describe, identify, and find uses for objects. The unit also provides opportunities for the student to sort and compare objects, important skills that cross multiple disciplines. The assessments in this unit will help the student relate information about objects to everyday life.

Objectives:
• Observe and tell about objects using the five senses
• Analyze and categorize objects by their composition and characteristics
• Explore how various objects can be used based on their characteristics
• Compare loud and soft sounds

Lesson 1: What Are Objects Like?

Objectives:
• Explore the concept of objects
• Describe objects

Lesson 2: What Are Your Five Senses?

Objectives:
• Observe and tell about objects using the five senses
Lesson 3: What Are Objects Made Of?
Objectives:
• Analyze and categorize objects by their composition

Lesson 4: What Can You Tell About Objects?
Objectives:
• Analyze and categorize objects by their composition and characteristics

Lesson 5: How Can You Sort Objects?
Objectives:
• Analyze and categorize objects by their composition, properties, and use

Lesson 6: How Can You Use Objects?
Objectives:
• Explore how various objects can be used based on their properties or characteristics

Lesson 7: How Is Sound Made?
Objectives:
• Compare loud and soft sounds
• Identify different ways sound is used in everyday life

Lesson 8: Exploring Objects
Objectives:
• Observe and tell about objects using the five senses
• Analyze and categorize objects by their composition and characteristics
• Identify properties by which objects might be categorized

Lesson 9: All About Objects Review
Objectives:
• Observe and tell about objects using the five senses
• Analyze and categorize objects by their composition and characteristics
• Explore how various objects can be used based on their characteristics
• Compare loud and soft sounds

Unit 4: Matter and Mixtures
In this unit, your student will investigate the concept of matter as well as the three states of matter: solids, liquids, and gases. Each state of matter has different characteristics. Your student will see how liquids and gases take the shape of the container while solids keep their shape. The portfolio assessment will allow your student to observe changes in solids and liquids. Lastly, your student will study how matter can be mixed to create mixtures.

Objectives:
• Describe and measure matter as a solid
• Discover and investigate the properties of solids, liquids, and gases
• Investigate how gases fill their containers
• Observe changes in water caused by freezing, melting and boiling
• Create and describe a mixture

Lesson 1: What Are Matter and Mixtures?
Objectives:
• Define the concepts of matter and mixtures

Lesson 2: What Are Solids Like?
Objectives:
• Describe and measure matter as a solid
• Discover and investigate the properties of a solid

Lesson 3: What Are Liquids Like?
Objectives:
• Discover and investigate the properties of liquids

Lesson 4: What Are Gases Like?
Objectives:
• Discover and investigate the properties of gases

Lesson 5: How Can Water Change?
Objectives:
• Observe changes in water caused by freezing, melting and boiling

Lesson 6: What Is a Mixture?
Objectives:
• Create and describe a mixture
Lesson 7: Matter and Mixtures Review

Objectives:
- Describe and measure matter as a solid
- Discover and investigate the properties of solids, liquids, and gases
- Investigate how gases fill their containers
- Observe changes in water caused by freezing, melting and boiling
- Create and describe a mixture

Lesson 8: Matter and Mixtures Unit Test

Objectives:
- Describe and measure matter as a solid
- Discover and investigate the properties of solids, liquids, and gases
- Investigate how gases fill their containers
- Observe changes in water caused by freezing, melting and boiling
- Create and describe a mixture
SCIENCE 1 A
Science 1 A

Science provides a way for people to actively learn about the world around them. Throughout this course, the student will perform hands-on activities to explore organisms and habitats and examine the composition of Earth. The McGraw-Hill textbook Science: A Closer Look and the science kit are the primary resources for this course. The life science units explore how plants and animals grow and change. The Earth science units analyze Earth's land and resources, as well as how to care for Earth. The student will also explore the scientific method and different careers in science.

In this course, the student will investigate how sunlight affects leaves, design an experiment to discover what plants need to survive, create a model of a mountain, and delve into many more exciting experiments. The lessons in this course are designed to accommodate a variety of learning styles and to provide a variety of opportunities for the entire family to participate in the student’s education. Some lessons, or groups of lessons, in each unit are activity-centered, which allows the student to engage the new concepts through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

Unit 1: Be a Scientist

In this introductory unit, your student will learn about scientists and what they do. He will study the basic steps of the scientific method, and he will learn why it is important for scientists to be careful during experiments.

Objectives:
- Identify basic science skills
- Describe the scientific method
- Explain why science safety is important

Lesson 1: Science Skills (two-day lesson)

Objectives:
- Identify and apply the skills used for basic scientific inquiry

Lesson 2: Scientific Method

Objectives:
- Apply the method that scientists use to study the natural world

Lesson 3: Science Safety

Objectives:
- Identify important safety procedures

Unit 2: Plants are Living things

In this unit, your student will learn about plants. She will find out what plants need to live and grow, and she will compare different plants and their parts. Your student will also complete a hands-on activity that requires her to make observations of a plant.

Objectives:
- Identify living and nonliving things
- Describe plant parts
- Compare different plants

Lesson 1: Learning About Living Things

Objectives:
- Compare and classify living and nonliving things
- Explain what plants need to live and grow

Appendix A.2.c Science Course Guides
Lesson 2: Inquiry Skill: Observe

Objectives:
- Observe a plant

Lesson 3: Parts of Plants

Objectives:
- Identify plant parts such as leaves, stems, and roots
- Describe what different parts do for the plant

Lesson 4: Different Plants

Objectives:
- Classify and compare different plants
- Identify some edible plant parts

Lesson 5: Unit Review

Objectives:
- Review and compare the parts of plants

Lesson 6: Unit Test

Unit 3: Plants Grow and Change

In this unit, your student will learn how plants grow and change. He will explore flowers, fruits, and seeds, and he will learn how plants are able to survive in different places of the world. Your student will also complete a hands-on activity to explore how sunlight affects a plant’s leaves.

Objectives:
- Compare flowers, fruits, and seeds
- Describe plant life cycles
- Identify desert, forest, and arctic environments

Lesson 1: Flowers, Fruits, and Seeds

Objectives:
- Explain why flowers and fruits are important to plants
- Describe and compare different seeds

Lesson 2: Inquiry Skill: Classify

Objectives:
- Categorize different objects by what they have in common

Lesson 3: How Plants Grow and Change

Objectives:
- Describe the life cycle of a plant
- Explain how plants can grow from seeds and other plant parts
Lesson 4: Lab: How Does Sunlight Affect Leaves?

Objectives:
- Observe how sunlight affects a plant

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Lesson 5: Plants Live in Many Places

Objectives:
- Describe how plants survive in different places
- Identify desert, rain forest, and arctic environments

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Lesson 6: Unit Review

Objectives:
- Review and compare flowers, fruits, and seeds

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Lesson 7: Unit Test

Unit 4: All About Animals

In this unit, your student will learn about animals. She will explore different kinds of animals, and how they eat, grow, and change throughout their lifetime. Your student will also complete an activity on animal comparison.

Objectives:
- Explain how different animals survive
- Describe what animals eat
- Identify animal life cycles

Lesson 1: All Kinds of Animals

Objectives:
- Observe and describe different kinds of animals
- Explain how animals are alike and different

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Lesson 2: Inquiry Skill: Compare

Objectives:
- Compare two animals

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Lesson 3: What Animals Need to Live

Objectives:
- Identify what animals need to survive
- Explain how different animals meet their needs

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Lesson 4: How Animals Eat Food

Objectives:
- Relate the shape of an animal’s teeth to what it eats
- Classify animals according to what they eat

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Lesson 5: Animals Grow and Change

Objectives:
- Describe the life cycles of different kinds of animals
• Explain what animals can do at different ages

Lesson 6: Unit Review

Objectives:
• Review different kinds of animals and what they need

Lesson 7: Unit Test

Unit 5: Places to Live

In this unit, your student will learn about habitats. He will explore land and water habitats, and he will find out how plants and animals live together in different habitats. Your student will also practice his communication skills when learning about desert habitats.

Objectives:
• Describe land habitats
• Describe water habitats
• Explain how plants and animals can live in the same habitat

Lesson 1: Land Habitats

Objectives:
• Describe land habitats
• Explain how different animals adapt to different environments

Lesson 2: Inquiry Skill: Communicate

Objectives:
• Communicate information about a desert habitat

Lesson 3: Water Habitats

Objectives:
• Describe water habitats
• Explain how plants and animals meet their needs in water habitats

Lesson 4: Plants and Animals Live Together

Objectives:
• Explain how plants and animals live together in habitats
• Describe why each part of a food chain is important

Lesson 5: Unit Review

Objectives:
• Review and compare habitats and animals' adaptations for survival

Lesson 6: Unit Test

Unit 6: Looking at Earth

In this unit, your student will learn about landforms on Earth. She will learn what different landforms look like, and she will explore characteristics of rocks and soil. Your student will also complete a hands-on activity about using models in science.
Objectives:
- Identify different landforms
- Classify rocks and soil
- Explain weathering and erosion

**Lesson 1: What Earth Looks Like**

Objectives:
- Identify different types of land on Earth
- Describe differences between bodies of water

**Lesson 2: Inquiry Skill: Make a Model**

Objectives:
- Make a model to identify details and learn more about something

**Lesson 3: Rocks and Soil**

Objectives:
- Identify rocks and sort them into groups based on physical properties
- Classify soil according to color, texture, and composition

**Lesson 4: Changing the Land**

Objectives:
- Describe how and why weathering occurs
- Explain the process of erosion and how it can be prevented

**Lesson 5: Unit Review**

Objectives:
- Review different forms of land and water

**Lesson 6: Unit Test**

**Unit 7: Caring for Earth**

In this unit, your student will learn about Earth’s resources. He will explore what natural resources are, how people use them, and how they can be protected by reducing, reusing, and recycling. Your student will also complete an investigation to find out how much water soil can hold.

Objectives:
- Define natural resources
- Explain how people use natural resources
- Explain the importance of reducing, reusing, and recycling

**Lesson 1: Earth's Resources**

Objectives:
- Identify and describe natural resources
- Explain how people use natural resources

**Lesson 2: Inquiry Skill: Investigate**

Objectives:
- Identify how much water two kinds of soil will hold
Lesson 3: Using Earth’s Resources

Objectives:
• Explain why water and air are important resources
• Define pollution and the need for clean land, water, and air

Lesson 4: Saving Earth’s Resources

Objectives:
• Describe how to conserve resources by reusing, reducing, and recycling

Lesson 5: Unit Review

Objectives:
• Reinforce what natural resources are and why it is important to care for them

Lesson 6: Unit Test
SCIENCE 1 B
Science 1 B

Science provides a way for people to actively learn about the world around them. Throughout this course the student will perform hands-on activities to explore organisms and habitats and examine the composition of Earth. The McGraw-Hill textbook, Science: A Closer Look, and the science kit are the primary resources for this course. The Earth science units explore the seasons and the solar system. The physical science units investigate changes in matter and energy. The student will also explore the scientific method and different careers in science.

In this course, the student will investigate which liquids flow faster, how water can change from a liquid to a gas, create a weather chart, and delve into many more exciting experiments. The lessons in this course are designed to accommodate a variety of learning styles and to provide a variety of opportunities for the entire family to participate in the student’s education. Some lessons, or groups of lessons, in each unit are activity-centered, which allows the student to engage the new concepts through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

Unit 1: Weather and Seasons

In this unit, your student will learn about weather and seasons. He will identify different weather conditions, and he will describe common weather during winter, spring, summer, and fall. Your student will also complete a hands-on activity to explore different types of weather throughout a week.

Objectives:
- Identify weather conditions
- Explain how clouds form
- Describe weather conditions during different seasons

Lesson 1: Weather All Around Us

Objectives:
- Identify different weather conditions
- Investigate ways to measure different weather conditions

Lesson 2: Inquiry Skill: Predict

Objectives:
- Predict what will happen using information from a picture

Lesson 3: The Water Cycle

Objectives:
- Explain how clouds form and why water falls back to Earth
- Identify different kinds of clouds

Lesson 4: Lab: What is the Weather Like this Week?

Objectives:
- Measure and record weather conditions

Lesson 5: Spring and Summer

Objectives:
- Describe how weather changes as seasons change
- Identify characteristics of spring and summer
Lesson 6: Fall and Winter

Objectives:
- Describe weather conditions in fall and winter
- Explain how fall and winter affect plants and animals

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Lesson 7: Unit Review

Objectives:
- Review weather and seasons through independent reading

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Lesson 8: Unit Test

Unit 2: The Sky

In this unit, your student will learn about Earth and the solar system. She will study the movements of Earth, the moon, and the sun, and she will learn why the sun is important to living things. Your student will also complete an activity in which she will record data about the sun at different times of day.

Objectives:
- Explain why living things need the sun
- Describe the movement of Earth, the moon, and the sun
- Explain the movement of the planets

Lesson 1: The Sky Above

Objectives:
- Classify objects in the sky during day and night
- Explain why the sun is important for life on Earth

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Lesson 2: Inquiry Skill: Record Data

Objectives:
- Record data about the sun's warmth at different times of day

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Lesson 3: Earth Moves

Objectives:
- Recognize Earth’s movement by observing shadows and seasons
- Explain the effects of Earth's rotation and orbit around the sun

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Lesson 4: Lab: How Many Hours of Sunlight Are There?

Objectives:
- Observe how the amount of sunlight changes each day

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Lesson 5: Earth's Neighbors

Objectives:
- Observe what the moon looks like from Earth
- Explain that eight planets, including Earth, move around the sun

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Lesson 6: Unit Review

Objectives:
Lesson 7: Unit Test

Unit 3: Matter Everywhere

In this unit, your student will learn about matter. He will come to understand that all things are made of matter, and he will identify properties of solids, liquids, and gases. Your student will also practice measuring objects using standard and nonstandard units.

Objectives:
- Describe the properties of matter
- Identify solids, liquids, and gases
- Explain why everything is made of matter

Lesson 1: Describing Matter

Objectives:
- Comprehend that all things are made of matter
- Describe the properties of matter

Lesson 2: Solids

Objectives:
- Identify the properties of solids
- Compare the properties of different solids

Lesson 3: Inquiry Skill: Measure

Objectives:
- Measure objects using standard and nonstandard units

Lesson 4: Liquids and Gases

Objectives:
- Describe the properties of liquids and gases
- Compare the properties of different kinds of liquids and gases

Lesson 5: Unit Review

Objectives:
- Review the three main states of matter and their properties

Lesson 6: Unit Test

Unit 4: Changes in Matter

In this unit, your student will learn about changes in matter. She will learn how to make mixtures, and she will explore the processes of freezing, melting, and evaporation. Your student will observe evaporation as it occurs.

Objectives:
- Explain how mixtures form
- Describe how heat changes matter
- Define freezing, melting, and evaporation

Lesson 1: Lab: How Can Water Change to Gas?
Lesson 2: Matter Can Change

Objectives:
- Observe and describe how solids can change

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Lesson 3: Making Mixtures

Objectives:
- Prepare mixtures of different solids and liquids
- Explain why some mixtures can be separated and others cannot

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Lesson 4: Heat Can Change Matter

Objectives:
- Describe how heat changes solids, liquids, and gases
- Explain the process of freezing, melting, and evaporation

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Lesson 5: Unit Review

Objectives:
- Reinforce the characteristics of different mixtures

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Lesson 6: Unit Test

Unit 5: On the Move

In this unit, your student will learn about position and motion. He will identify pushes and pulls as forces, and he will explain why magnets attract magnetic objects. Your student will also investigate how quickly different liquids flow.

Objectives:
- Explain position and motion
- Identify different forces
- Describe the properties of magnets

Lesson 1: Position and Motion

Objectives:
- Describe the position of an object in relation to other objects
- Observe an object’s motion and speed by recording it’s change in position

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Lesson 2: Inquiry Skill: Infer

Objectives:
- Infer how body structure affects an animal’s speed

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Lesson 3: Pushes and Pulls

Objectives:
- Identify pushes, pulls, gravity, and friction as forces
- Explain how different forces change the motion of objects
Lesson 4: Lab: Which Liquid Flows the Fastest?

Objectives:
• Evaluate how quickly different liquids flow

Lesson 5: Simple Machines

Objectives:
• Discover how simple machines make it easier to move objects
• Explain the functions of pulleys, levers, and ramps

Lesson 6: Magnets

Objectives:
• Explain why magnets attract some objects and not others
• Identify the two poles on a magnet

Lesson 7: Unit Review

Objectives:
• Review motion and forces that affect motion

Lesson 8: Unit Test

Unit 6: Energy Everywhere

In this unit, your student will learn about energy. She will study energy in different forms, such as heat, sound, and electricity. Your student will also complete an investigation about heat energy.

Objectives:
• Describe different sources of heat
• Explain what causes sounds
• Identify uses of electricity

Lesson 1: Energy and Heat

Objectives:
• Describe different sources of energy and heat

Lesson 2: Inquiry Skill: Draw Conclusions

Objectives:
• Draw conclusions about heat energy

Lesson 3: Sound

Objectives:
• Identify vibration as the cause of sound
• Describe the volume and pitch of sounds

Lesson 4: Light
• Explain that light passes through some objects but not others
• Describe how people use different light sources

Lesson 5: Electricity

Objectives:
• Describe how people use electricity

Lesson 6: Unit Review

Objectives:
• Review different kinds of energy

Lesson 7: Unit Test
SCIENCE 2 A
Science 2 A

Studying science helps us understand the world around us as well as the world that existed before us. The McGraw-Hill textbook Science: A Closer Look and the science kit are the primary resources for this course. The student will study the major branches of science as he performs hands-on activities. The life science units explore different organisms and their habitats. The Earth science units investigate Earth’s resources and physical composition.

The lessons in this course are designed to accommodate a variety of learning styles and to provide a variety of opportunities for the entire family to participate in the student’s education. Some lessons, or groups of lessons, in each unit are activity-centered, which allows the student to engage the new concepts he encounters through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

Unit 1: Be a Scientist

In this introductory unit, your student will learn about the skills used to study science. He will explore skills used in the scientific method, and he will learn why safety procedures are important when conducting science experiments.

Objectives:
- Identify basic scientific inquiry skills
- Practice using the scientific method
- Explain why “safe science” is important

Lesson 1: Science Skills (two-day lesson)

Objectives:
- Identify skills scientists use to investigate questions
- Explain how science skills are used to learn about pond animals

Lesson 2: Scientific Method

Objectives:
- Explain the steps scientists use to investigate questions

Lesson 3: Science Safety

Objectives:
- Identify important safety procedures

Unit 2: Plants

In this unit, your student will learn about plants. She will explore plant parts and plant life cycles, and she will examine how different plants are alike and different. Your student will also learn how to make scientific observations by observing a flower.

Objectives:
- Explain why plants are living things
- Identify the different parts of a plant
- Describe the life cycle of a plant

Lesson 1: What Living Things Need

Objectives:
- Identify living and nonliving things
- Explain why plants are living things and describe their parts

Lesson 2: Inquiry Skill: Observe
Lesson 3: Plants Make New Plants

Objectives:
- Describe seeds and their origins
- Identify the stages in a plant’s life cycle

Lesson 4: How Plants Are Alike and Different

Objectives:
- Recognize that plants look and act like their parent plants
- Describe ways that plants change to meet their needs

Lesson 5: Unit Review

Objectives:
- Review and describe how plants grow and change throughout their life cycle

Lesson 6: Unit Test

Unit 3: Animals

In this unit, your student will learn about animals. He will study different groups of animals, and he will learn how animals change throughout their lifetime. Your student will also learn about classification by classifying types of animals to show how they are alike.

Objectives:
- Identify different types of animals
- Describe the life cycle of an animal
- Explain why animals use camouflage

Lesson 1: Animal Groups

Objectives:
- Describe, classify, and compare animals
- Explain how animal parts help animals meet their needs

Lesson 2: Inquiry Skill: Classify

Objectives:
- Classify animals to show how they are alike

Lesson 3: Animals Grow and Change

Objectives:
- Explain that every animal has a life cycle
- Describe and compare the life cycles of animals

Lesson 4: Staying Alive

Objectives:
- Identify how camouflage helps animals stay safe
- Explain how animals protect themselves
Lesson 5: Unit Review

Objectives:
- Review the needs, traits, and survival behaviors of animals

Lesson 6: Unit Test

Unit 4: Looking at Habitats

In this unit, your student will learn about habitats. She will learn how plants and animals use their habitats, and what happens to food webs when habitats change. Your student will also learn how to put things in order by completing an activity about beaver dams and how they are made. In addition, your student will practice matching leaf prints to specific leaf types.

Objectives:
- Describe different plant and animal habitats
- Define a food chain and a food web
- Explain how and why habitats change

Lesson 1: Places to Live

Objectives:
- Describe different habitats
- Explain how plants and animals use their habitats

Lesson 2: Inquiry Skill: Putting Things in Order

Objectives:
- Put in order the way a beaver creates a dam

Lesson 3: Food Chains and Food Webs

Objectives:
- Describe a food chain
- Describe a food web

Lesson 4: Habitat Change

Objectives:
- Explain why habitats change
- Describe what happens when habitats change

Lesson 5: Lab: How Do Clues Help Scientists Study Fossils?

Objectives:
- Infer which leaf prints match specific leaves

Lesson 6: Unit Review

Objectives:
- Review habitats

Lesson 7: Unit Test
Unit 5: Kinds of Habitats

In this unit, your student will learn about forest, desert, and ocean habitats. He will learn how different plants and animals survive in these habitats. Your student will also complete an activity in which he will study human and animal footprints.

Objectives:
- Explain how plants and animals live in different forest habitats
- Describe deserts and how living things survive there
- Explain how plants and animals live in the ocean

Lesson 1: Forests

Objectives:
- Compare and contrast woodland forests and rain forests
- Explain how different animals live in forest habitats

Lesson 2: Hot and Cold Deserts

Objectives:
- Describe desert habitats
- Explain how plants and animals survive in a dry habitat

Lesson 3: Inquiry Skill: Infer

Objectives:
- Study human footprints to make inferences about animal footprints

Lesson 4: Oceans and Ponds

Objectives:
- Describe oceans and ponds
- Explain how plants and animals live in oceans and ponds

Lesson 5: Unit Review

Objectives:
- Review and compare different kinds of habitats

Lesson 6: Unit Test

Unit 6: Land and Water

In this unit, your student will learn about land and water on Earth. She will study Earth’s layers and landforms, and she will identify Earth’s water resources and how they are used. Your student will also complete an activity in which she will make a model to study landforms on Earth.

Objectives:
- Describe Earth’s layers and its landforms
- Identify sources of water on Earth
- Explain how wind and water change Earth’s surface

Lesson 1: Earth’s Land

Objectives:
- Compare the different landforms on Earth’s surface
- Identify Earth’s layers
Lesson 2: Inquiry Skill: Make a Model

Objectives:
- Make a model to understand landforms

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Lesson 3: Earth's Water

Objectives:
- Identify sources of Earth's water
- Classify how people use water

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Lesson 4: Changes on Earth

Objectives:
- Explain slow and fast changes on Earth
- Describe how wind and water can change rocks

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Lesson 5: Unit Review

Objectives:
- Review Earth's landforms, water, and changes

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Lesson 6: Unit Test

Unit 7: Earth's Resources

In this unit, your student will learn about Earth's resources. He will study rocks, minerals, and soil, and he will learn why Earth's resources should be taken care of. Your student will also compare different rocks using a Venn diagram, and he will complete an activity in which he will predict how much water different soils can hold.

Objectives:
- Describe rocks and minerals and how they are used
- Explain how soil forms and describe what's in soil
- Identify ways natural resources are used

Lesson 1: Rocks and Minerals

Objectives:
- Explain what rocks are and how they are used
- Explain what minerals are and how they are used

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Lesson 2: Inquiry Skill: Compare

Objectives:
- Compare two rocks using a Venn diagram

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Lesson 3: Soil

Objectives:
- Describe what things make up soil
- Explain how soil is formed

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Lesson 4: Lab: Which Soil Holds More Water?

Objectives:
Lesson 5: Using Earth’s Resources

Objectives:
- Describe how people use natural resources
- Explain why people should take care of Earth’s resources

Lesson 6: Unit Review

Objectives:
- Review rocks, soils, and natural resources

Lesson 7: Unit Test
SCIENCE 2 B
Science 2 B

Studying science helps us understand the world around us as well as the world that existed before us. The McGraw-Hill textbook, Science: A Closer Look, and the science kit are the primary resources for this course. The student will study the major branches of science as he performs hands on activities. The Earth science units investigate Earth's weather patterns and seasons as well as the solar system. The physical science units analyze changes in matter and explore different forms of energy.

In this course, the student will compare the strength of different magnets, analyze the affect of sunlight on temperature, and do much, much more! The lessons in this course are designed to accommodate a variety of learning styles and to provide a variety of opportunities for the entire family to participate in the student's education. Some lessons, or groups of lessons, in each unit are activity-centered, which allow the student to engage the new concepts he encounters through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

Unit 1: Observing Weather

In this unit, your student will learn about weather. He will study temperature, wind, and precipitation, and he will learn about the water cycle and how it affects changes in weather. Your student will also learn how to predict the weather based on collected data.

Objectives:
- Describe how weather is measured
- Illustrate and explain the water cycle
- Understand how weather can be predicted

Lesson 1: Weather

Objectives:
- Describe temperature, wind, and precipitation
- Identify and use tools to measure weather

Lesson 2: The Water Cycle

Objectives:
- Identify the different stages of the water cycle
- Describe and illustrate the water cycle

Lesson 3: Inquiry Skill: Predict

Objectives:
- Predict the weather based on data

Lesson 4: Changes in Weather

Objectives:
- Predict weather by observing clouds
- Identify different types of clouds and storms

Lesson 5: Unit Review

Objectives:
- Review the water cycle

Lesson 6: Unit Test
Unit 2: Earth and Space

In this unit, your student will learn about Earth’s place in space. She will study Earth’s rotation and its orbit around the sun, and she will identify and describe the planets in the solar system. Your student will also complete an activity in which she will observe and record the moon’s phases.

Objectives:
- Explain what causes day, night, and seasons
- Describe the planets in the solar system
- Identify the moon’s phases

Lesson 1: Day and Night

Objectives:
- Identify how Earth rotates to make day and night
- Explain how shadows change as Earth moves

Lesson 2: Inquiry Skill: Draw Conclusions

Objectives:
- Observe and record the time of day using reference objects

Lesson 3: Why Seasons Happen

Objectives:
- Describe seasonal and annual patterns on Earth
- Relate seasonal patterns to Earth’s orbit around the sun

Lesson 4: The Moon and Stars

Objectives:
- Observe the moon and its phases as it orbits Earth
- Recognize that the sun is the closest star to Earth

Lesson 5: Lab: How Does the Moon Seem to Change?

Objectives:
- Observe and record the moon’s phases

Lesson 6: The Solar System

Objectives:
- Explain the relationship between the planets and the sun
- Describe the planets in the solar system

Lesson 7: Unit Review

Objectives:
- Review how the sun and Earth interact to create day, night, and the seasons

Lesson 8: Unit Test

Unit 3: Looking at Matter
In this unit, your student will learn about matter. He will identify and compare solids, liquids, and gases; and he will compare and contrast different properties of matter. Your student will also practice recording data when he completes a sorting activity about solids and liquids.

Objectives:
- Define matter and its properties
- Describe solids, liquids, and gases
- Explain how matter is measured

Lesson 1: Describing Matter

Objectives:
- Identify matter as anything that has mass and takes up space
- Compare and contrast different properties of matter

Lesson 2: Inquiry Skill: Record Data

Objectives:
- Describe and sort matter into two groups: solid and liquid

Lesson 3: Solids

Objectives:
- Compare and contrast the properties of solids
- Use different ways to measure solids

Lesson 4: Liquids and Gases

Objectives:
- Describe the properties of liquids and gases
- Compare and contrast liquids and gases

Lesson 5: Unit Review

Objectives:
- Reinforce the properties of matter

Lesson 6: Unit Test

Unit 4: Changes in Matter

In this unit, your student will learn about chemical and physical changes of matter. She will read how heat can change matter and how mixtures form. Your student will also make observations and communicate data when she completes a hands-on activity using cream.

Objectives:
- Identify chemical changes in matter
- Identify physical changes in matter
- Observe how matter changes state

Lesson 1: Matter Changes

Objectives:
- Identify chemical and physical changes

Lesson 2: Inquiry Skill: Communicate

Objectives:
Lesson 3: Lab: What Happens When You Shake Cream?

Objectives:
• Observe a liquid become a solid

Lesson 4: Changes of State

Objectives:
• Observe how heat can change matter

Lesson 5: Mixtures

Objectives:
• Observe how solids, liquids, and gases mix

Lesson 6: Unit Review

Objectives:
• Review the concepts of physical and chemical changes

Lesson 7: Unit Test

Unit 5: How Things Move

In this unit, your student will learn about forces, motion, and magnets. He will read about the forces of gravity and friction, and he will learn how to measure and record changes in a moving object’s position. Your student will also complete an activity that investigates the speeds of different objects.

Objectives:
• Describe the forces of gravity and friction
• Explain an object’s position and motion
• Identify magnetic objects

Lesson 1: Position and Motion

Objectives:
• Describe an object's position in relation to another object
• Measure and record changes in an object's position

Lesson 2: Inquiry Skill: Investigate

Objectives:
• Investigate the speeds of different objects

Lesson 3: Forces

Objectives:
• Identify a force as a push or a pull
• Describe the forces of gravity and friction

Lesson 4: Using Simple Machines
Objectives:
- Identify simple tools
- Discover that simple machines change force to make work easier

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Lesson 5: Exploring Magnets

Objectives:
- Observe magnets attract and repel objects
- Identify magnet poles and explain how they function

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Lesson 6: Lab: How Can You Compare the Strength of Magnets?

Objectives:
- Record the results of an experiment in a bar graph

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Lesson 7: Unit Review

Objectives:
- Review simple machines, forces, and movement

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Lesson 8: Unit Test

Unit 6: Using Energy

In this final unit, your student will learn about energy. She will study heat, sound, light, and electricity, and she will learn how the sun provides heat to planets in the solar system. Your student will also practice measuring and comparing temperatures using thermometers.

Objectives:
- Describe how Earth receives energy from the sun
- Explain how sounds are produced
- Identify properties of light and electricity

Lesson 1: Heat

Objectives:
- Recognize that the sun supplies heat and energy to Earth

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Lesson 2: Inquiry Skill: Measure

Objectives:
- Measure and compare temperatures by using thermometers

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Lesson 3: Sound

Objectives:
- Discover how different sounds are produced
- Describe the volume of pitch and sounds

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Lesson 4: Light

Objectives:
- Identify the composition and properties of light

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Lesson 5: Lab: How Does Sunlight Affect Temperature?

Objectives:
- Compare how sunlight affects the temperature of light and dark objects

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Lesson 6: Exploring Electricity

Objectives:
- Identify forms of electricity and their uses

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Lesson 7: Unit Review

Objectives:
- Review types of energy

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Lesson 8: Unit Test
SCIENCE 3 A
Science 3 A

Science provides a way for people to actively learn about the world around them. Throughout this course the student will continue to perform hands-on activities to explore organisms, investigate changes, and examine the solar system. The McGraw-Hill textbook, Science: A Closer Look, and the science kit are the primary resources for this course. The life science units describe and analyze components of the living world. The Earth science unit describes Earth’s features and the changes it undergoes. The student will also explore different careers in science and the scientific method.

In this course, the student will design an experiment to discover what plants need to survive, make a model of a cave, and delve into many more exciting experiments. The lessons in this course are designed to accommodate a variety of learning styles and to provide a variety of opportunities for the entire family to participate in the student’s education. Some lessons, or groups of lessons, in each unit are activity-centered, which allows the student to engage the new concepts through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

Unit 1: Be a Scientist

In this introductory unit, your student will learn about the scientific method through the actions of two scientists who are studying animals in Madagascar. Your student will learn how these scientists, Chris and Paule, use the scientific method to learn more about the world around them. He will read how the scientific method helps them study animals like the Madagascan chameleon.

Your student will also be introduced to the many inquiry-based skills that he will use throughout this course. He will learn how to form a hypothesis, make observations, analyze data, draw conclusions, and communicate results. Before your student begins the next unit, he will learn about science safety and why it’s important for scientists to be safe and responsible when conducting research.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
- Explain why the scientific method is important to scientists
- Learn how scientists develop hypotheses and use inquiry skills
- Recognize that safety is very important in the field of science

Lesson 1: The Scientific Method: Part 1

Objectives:
- Identify the steps in the scientific method

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Lesson 2: The Scientific Method: Part 2

Objectives:
- Learn how scientists form and test a hypothesis

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Lesson 3: Focus on Skills and Safety

Objectives:
- Understand and use inquiry skills
- Identify the reasons safety procedures are important

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Lesson 4: Unit Review and Test

Objectives:
- Summarize chapter concepts
Unit 2: A Look at Living Things

In this unit, your student will explore what living things need to survive. She will learn how to identify living things and nonliving things in an ecosystem and will be introduced to the basic needs of all organisms, including food, water, air, and space.

During this unit, your student will conduct an inquiry-based experiment with plants, which will help her identify what factors influence a plant’s ability to survive. She will study plant parts, as well as animal parts, and will learn how to classify plants and animals based on their characteristics.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
- Recognize the differences between living things and nonliving things
- Describe what plants and animals need to survive
- Explain how plants and animals are classified into groups
- Identify important plant and animal structures and functions

Lesson 1: Living Things and Their Needs: Part 1

Objectives:
- Compare nonliving things and living things

Lesson 2: Living Things and Their Needs: Part 2

Objectives:
- Describe what living things need to survive

Lesson 3: Plants and Their Parts: Part 1

Objectives:
- Relate plant structures to their functions

Lesson 4: Plants and Their Parts: Part 2

Objectives:
- Describe how plants are classified

Lesson 5: Lab: What Do Plants Need to Survive?

Objectives:
- Predict if plants need water and light to grow

Lesson 6: Animals and Their Parts (two-day lesson)

Objectives:
- Describe what an animal needs to survive
- Relate how an animal meets its needs

Lesson 7: Classifying Animals: Part 1

Objectives:
- Identify two major groups of animals
Lesson 8: Classifying Animals: Part 2

Objectives:
- Classify animals into groups based on their structures

Lesson 9: Unit Review

Objectives:
- Summarize chapter concepts

Lesson 10: Unit Test

Unit 3: Living Things Grow and Change

In this unit, your student will explore the life cycles of plants and animals. He will identify the different life stages of organisms. Your student will use the scientific method to develop and test a hypothesis related to plant growth.

During this unit, your student will explore the process of metamorphosis by studying amphibians and insects. He will learn how traits, such as hair and eye color, can be passed on from parents to offspring. By the end of this unit, your student will have a better understanding of where some of her traits may have come from.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
- Identify different life cycles of plants and animals
- Explain reproduction and identify inherited traits and learned traits
- Develop a hypothesis and test it with an experiment

Lesson 1: Plant Life Cycles: Part 1

Objectives:
- Understand how plants grow and reproduce

Lesson 2: Plant Life Cycles: Part 2

Objectives:
- Recognize the life cycles of different types of plants

Lesson 3: Inquiry Skill: Form a Hypothesis

Objectives:
- Form a hypothesis and test it by conducting an experiment and gathering data

Lesson 4: Animal Life Cycles

Objectives:
- Identify the different stages that animals go through in a life cycle
- Compare the life cycles of different animals

Lesson 5: From Parents to Young
Objectives:
• Explain how some traits are inherited from parents
• Distinguish between inherited traits and learned traits

Lesson 6: Unit Review

Objectives:
• Summarize chapter concepts

Lesson 7: Unit Test

Unit 4: Living Things in Ecosystems

In this unit, your student will be introduced to ecosystems and the organisms that inhabit them. She will examine food chains and food webs, then identify roles that different organisms play within their ecosystem. She will learn how to use communication skills to share information about energy within an ecosystem.

During this unit, your student will study different types of ecosystems, including deserts, tropical rain forests, temperate forests, oceans, and wetlands. She will learn how plants and animals have specific adaptations—structures or behaviors that help them survive in their environment.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
• Explain what an ecosystem is and how energy flows throughout an ecosystem
• Define food chains and food webs and how they vary in different ecosystems
• Identify various examples of plant and animal adaptations and explain how adaptations help organisms survive
• Explain why camouflage is very important to animals that use it

Lesson 1: Food Chains and Food Webs: Part 1

Objectives:
• Define an ecosystem

Lesson 2: Food Chains and Food Webs: Part 2

Objectives:
• Understand how energy moves through a food chain
• Identify the roles of different organisms in a food web

Lesson 3: Inquiry Skill: Communicate

Objectives:
• Communicate information about energy transfer in an ecosystem

Lesson 4: Types of Ecosystems: Part 1

Objectives:
• Identify different ecosystems

Lesson 5: Types of Ecosystems: Part 2

Objectives:
• Describe the characteristics of different ecosystems
Lesson 6: Adaptations: Part 1

Objectives:
- Recognize adaptations that allow organisms to survive in certain environments

Lesson 7: Adaptations: Part 2

Objectives:
- Explain how adaptations help organisms survive

Lesson 8: Lab: Does Camouflage Help Animals Stay Safe?

Objectives:
- Perform an investigation to observe how camouflage helps animals survive

Lesson 9: Unit Review

Objectives:
- Summarize chapter concepts

Lesson 10: Unit Test

Unit 5: Changes in Ecosystems

In this unit, your student will examine how changes to the environment affect living things. He will learn how organisms compete for food, water, space, and other resources in their environment. Your student will also learn that pollution can have lasting effects on organisms and their habitats.

During this unit, your student will explore the ways in which people can protect the environment. He will learn how to help the environment by following the “Three Rs”—reduce, reuse, and recycle. By the end of this unit, your student will understand how populations of organisms can be affected by drastic changes to the environment, such as fires and floods. He will learn how scientists study fossils to gain information about environmental changes that occurred in the past.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
- Explain how living things can change the environment that they live in
- Identify how environmental changes can affect living things
- Describe how scientists use fossils to learn about organisms that lived in the past
- Recognize the difference between organisms that are endangered and those that are extinct

Lesson 1: Living Things Change Their Environment

Objectives:
- Identify ways that living things change their environment
- Explain how different organisms compete with each other for food, water, and shelter

Lesson 2: Changes Affect Living Things: Part 1
Lesson 3: Changes Affect Living Things: Part 2

Objectives:
• Explain what it means for an animal to be endangered

Lesson 4: Living Things of the Past

Objectives:
• Explain how scientists learn about ancient plants and animals by studying fossils
• Show how present-day organisms are similar to those that lived long ago

Lesson 5: Unit Review

Objectives:
• Summarize chapter concepts

Lesson 6: Unit Test

Unit 6: Earth Changes

In this unit, your student will explore Earth’s structure. She will learn to identify Earth’s oceans and continents as well as specific landforms, such as mountains, valleys, canyons, plains, and coasts. By studying an image in her textbook, your student will investigate unique features of the ocean floor. She will identify and define a continental shelf, an abyssal plain, and a seafloor trench.

Your student will also examine Earth’s layers: the crust, mantle, and core. She will read about earthquakes and how they can affect the physical structure of Earth’s crust. In addition, your student will read about volcanoes, landslides, and floods—and how they can alter the appearance of Earth’s surface. Finally, your student will discover how the processes of weathering and erosion change landscapes across the world.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
• Identify features on Earth’s surface, including features on the ocean floor
• Explain how earthquakes and volcanic eruptions occur
• Identify the effects of landslides and floods
• Explain Earth’s layered interior

Lesson 1: Earth’s Features: Part 1

Objectives:
• Identify Earth’s landforms

Lesson 2: Earth’s Features: Part 2

Objectives:
• Identify the features of the ocean floor
• Describe the layers of Earth

Lesson 3: Inquiry Skill: Make a Model
Objectives:
- Make a model of a cave

Lesson 4: Sudden Changes to Earth: Part 1
Objectives:
- Describe earthquakes and identify their effects

Lesson 5: Sudden Changes to Earth: Part 2
Objectives:
- Describe volcanoes and identify their effects
- Describe the effects of landslides and floods

Lesson 6: Weathering and Erosion
Objectives:
- Describe and identify the forces that cause weathering and erosion
- Analyze how people change the land

Lesson 7: Unit Review
Objectives:
- Summarize chapter concepts

Lesson 8: Unit Test
SCIENCE 3 B
Science 3 B

Science provides a way for people to actively learn about the world around them. Throughout this course the student will continue to perform hands-on activities to explore organisms, investigate changes, and examine the solar system. The McGraw-Hill textbook, *Science: A Closer Look*, and the science kit are the primary resources for this course. The Earth science units detail Earth’s composition and the relationships between the Earth, moon, and sun. The physical science unit explores the properties of matter. The student will also explore different careers in science and the scientific method.

In this course, the student will create a model to investigate how simple machines work, investigate why the moon’s shape appears to change during the month, and delve into many more exciting experiments. The lessons in this course are designed to accommodate a variety of learning styles and to provide a variety of opportunities for the entire family to participate in the student’s education. Some lessons, or groups of lessons, in each unit are activity-centered, which allows the student to engage the new concepts through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

Unit 1: Using Earth’s Resources

In this unit, your student will explore Earth’s minerals. He will examine mineral properties such as color, streak, luster, and hardness. After studying minerals, your student will learn how minerals combine to form rocks. He will explore the three types of rocks: igneous, sedimentary, and metamorphic.

In the second part of the unit, your student will learn how to use variables to answer a scientific question. He will do this by conducting an experiment with different types of soil. Your student will then read about fossils and how they form. He will explore Earth’s renewable and nonrenewable resources and will read about the ways people can conserve natural resources.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
- Identify different mineral properties and explain the three main types of rocks
- Explain how different soils can hold different quantities of water
- Define fossil fuels and explain how fossils form
- Explain why air and water are considered valuable resources and investigate air pollution

Lesson 1: Minerals and Rocks: Part 1

Objectives:
- Compare and contrast properties of minerals

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Lesson 2: Minerals and Rocks: Part 2

Objectives:
- Describe how three main kinds of rocks form

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Lesson Guide (Coaching Guide):

Lesson 3: Soil

Objectives:
- Explore soil and identify its components
- Compare and contrast different soils

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Lesson 4: Inquiry Skill: Use Variables
Objectives:
• Compare how much water different soils hold

**Lesson 5: Fossils and Fuels**

Objectives:
• Model and describe how fossils form
• List examples of fossil fuels and other sources of energy

**Lesson 6: Air and Water Resources**

Objectives:
• Describe how air and water are used as resources
• Explain reasons and methods for conserving and protecting air and water

**Lesson 7: Lab: What Things Pollute the Air?**

Objectives:
• Collect and compare things carried in air in different locations

**Lesson 8: Unit Review**

Objectives:
• Summarize unit concepts

**Lesson 9: Unit Test**

**Unit 2: Changes in Weather**

In this unit, your student will explore weather. She will learn how different types of weather form in Earth’s atmosphere, and she will read about predicting weather. Your student will test her inquiry skills when she completes the lab, “Interpret Data.” She will learn how to interpret weather data that was collected throughout a year.

Next, your student will study the water cycle and how it relates to different weather patterns. She will read about evaporation, condensation, and precipitation; and she will examine a detailed diagram in her textbook that illustrates the water cycle. Finally, your student will discover the difference between weather and climate. She will learn how and why climates vary across the world.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
• Define weather and explain different types of weather
• Identify different stages of the water cycle and how it relates to weather
• Identify global climates and seasonal differences across the world

**Lesson 1: Weather**

Objectives:
• Define weather
• Describe four characteristics of weather

**Lesson 2: Inquiry Skill: Interpret Data**

Objectives:
Unit 3: Planets, Moons, and Stars

In this unit, your student will investigate the solar system. He will first study the Earth-moon-sun relationship and will learn why there are seasons on Earth and why there are phases of the moon. Next, your student will explore other planets in the solar system. He will compare and contrast the inner and outer planets. When reading about the outer planets, be sure that your student understands that Pluto is now considered a dwarf planet.

At the end of this unit, your student will explore stars. He will learn why stars can only be seen at night and why the Big Dipper is not a constellation. Your student will be able to explain why different stars can be viewed during different seasons. After completing the reading assignments for this unit, your student will have a better understanding of the many features of the solar system.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
- Explain the relationship between Earth and the sun and describe what causes seasons
- Identify phases of the moon and describe the moon’s features
- Describe the solar system and identify the inner and outer planets
- Explain stars and constellations and identify the locations in which they can be viewed

Lesson 1: The Sun and Earth

Objectives:
- Explain what causes day and night
- Explain what causes the seasons
- Describe the sun

Lesson 2: The Moon and Earth
Objectives:
- Identify the phases of the moon and explain why the moon seems to change shape
- Describe features of the moon

Lesson 3: Lab: Why Does the Moon's Shape Appear to Change?

Objectives:
- Model the changes in the appearance of the moon

Lesson 4: The Planets

Objectives:
- Describe our solar system
- Describe the inner and outer planets

Lesson 5: The Stars

Objectives:
- Describe stars and constellations
- Describe why different constellations can be seen during different seasons

Lesson 6: Unit Review

Objectives:
- Summarize unit concepts

Lesson 7: Unit Test

Unit 4: Observing Matter

In this unit, your student will begin to investigate matter. She will learn how to identify examples of matter and will study several properties of matter, including mass and volume. Your student will learn that matter is composed of elements. Practical examples of elements are pictured in your student’s textbook.

After learning what matter is, your student will explore the ways that matter can be measured. She will learn the standard units of measurement for length, volume, and mass. She will also learn how to differentiate between mass and weight. At the end of the unit, your student will explore the three states of matter—solids, liquids, and gases—and how she uses them every day.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
- Define matter and describe various properties of matter
- Measure matter using standard units and explain the difference between mass and weight
- Differentiate between solids, liquids, and gases

Lesson 1: Properties of Matter

Objectives:
- Define matter as anything that has mass and takes up space
Lesson 2: Measuring Matter: Part 1

Objectives:
- Measure matter using tools that record standard units

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Lesson 3: Measuring Matter: Part 2

Objectives:
- Compare and contrast weight and mass

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Lesson 4: Solids, Liquids, and Gases

Objectives:
- Define the three common states of matter: solid, liquid, and gas
- Explain the properties of solids, liquids, and gases

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Lesson 5: Unit Review

Objectives:
- Summarize unit concepts

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Lesson 6: Unit Test

Unit 5: Changes in Matter

In this unit, your student will continue learning about matter. He will explore changes to matter’s state. Your student will learn what happens to matter when it freezes, melts, condenses, and evaporates. He will conduct an experiment to determine whether salt water freezes faster—or slower—than fresh water.

Your student will also learn how to differentiate between physical changes and chemical changes in matter. He will read how physical changes can be observed, but some chemical changes cannot. Your student will learn that the release of heat and/or gas generally indicates that a chemical change has occurred.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
- Recognize how water changes temperature in different states
- Investigate the freezing point of saltwater and freshwater
- Differentiate between physical changes and chemical changes
- Explain what a mixture is

Lesson 1: Changes of State: Part 1

Objectives:
- Measure and record the temperature of water in different states

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Lesson 2: Changes of State: Part 2

Objectives:
- Identify the effect of heating and cooling matter

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Lesson 3: Inquiry Skill: Predict

Objectives:
- Determine whether salt water or fresh water freezes faster
Lesson 4: Physical Changes

Objectives:
• Define physical changes as those that do not change the identity of a material
• Describe how to make and separate mixtures

Lesson 5: Chemical Changes

Objectives:
• Describe chemical changes
• Understand that chemical changes are part of our everyday life

Lesson 6: Lab: Physical and Chemical Changes in Matter

Objectives:
• Observe physical and chemical changes in a piece of chalk

Lesson 7: Unit Review

Objectives:
• Summarize unit concepts

Lesson 8: Unit Test

Unit 6: Forces and Motion

In this unit, your student will study the relationship between forces and motion. She will learn how to define factors such as position, distance, and speed. She will also learn how forces change the motion of objects. Your student will learn about magnetic force, and will conduct an experiment to determine how magnetic force is affected by the distance between an object and a magnet.

Your student will go on to study work, energy, and simple machines. She will define kinetic and potential energy, and will be able to explain how energy can change from one form to another. She will explore the six simple machines: levers, pulleys, wheels and axles, inclined planes, screws, and wedges. After your student has completed all of the reading assignments, see if she can identify a compound machine at home.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
• Define position, motion, speed, friction, gravity, and magnetism
• Describe how forces relate to motion
• Investigate how distance affects the force of a magnet
• Differentiate between energy and work and identify different forms of energy

Lesson 1: Position and Motion

Objectives:
• Describe and relate position and motion
• Define speed using distance and time

Lesson 2: Forces
Lesson 3: Lab: How Distance Affects the Pull of a Magnet

Objectives:
- Experiment to determine how the distance between a magnet and an object affects magnetic force

Lesson 4: Work and Energy

Objectives:
- Define energy and work
- Discuss the forms of energy and how energy changes from one form to another

Lesson 5: Inquiry Skill: Infer

Objectives:
- Relate the speed of water and the energy it has

Lesson 6: Unit Review

Objectives:
- Summarize unit concepts

Lesson 7: Unit Test

Unit 7: Forms of Energy

In this final unit, your student will explore the following forms of energy—heat, sound, light, and electricity. He will learn how to differentiate between heat and temperature, and will learn about conductors and insulators in an experiment with three potential insulators. In this unit, your student will learn how sound travels and will learn the difference between volume and pitch.

Your student will also explore properties of light and be able to define opaque, transparent, and translucent. He will learn how different colors are made and how light can be reflected and refracted. At the end of this unit, your student will study electricity. He will gain a basic understanding of static electricity and will explore how electric currents flow through circuits.

Before beginning this unit, look at the materials list in the Course Summary backpack. There may be items that you need to supply to complete the labs.

Objectives:
- Describe heat transfer and identify insulators and conductors
- Explain how sound is produced and define pitch and volume
- Explain how light travels and describe how colors form

Lesson 1: Heat

Objectives:
- Describe how heat moves
- Compare insulators and conductors

Lesson 2: Inquiry Skill: Experiment

Objectives:
• Experiment to compare the effectiveness of three different materials as insulators

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Lesson 3: Sound

Objectives:
• Describe how vibrations produce sounds
• Compare the pitch and volume of a sound

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Lesson 4: Light

Objectives:
• Explore how light travels
• Describe how colors are seen

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Lesson 5: Electricity

Objectives:
• Describe electrical charge
• Identify the parts of a circuit

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Lesson 6: Unit Review

Objectives:
• Summarize unit concepts

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Lesson 7: Unit Test
SCIENCE 4 A
Science 4 A

Science is an adventure in which everyone can take part! In this first semester course, the student will be participating in scientific investigations of many different forms including simple observations and experiments. Results from these investigations will provide information about the surrounding world. The McGraw-Hill textbook, *Science: A Closer Look*, and the science kit are the primary resources for this course.

The opening unit examines volcano exploration and reviews the scientific method. The life science units examine the commonalities and differences among organisms. The Earth Science units provide an opportunity for the student to investigate the different land features on Earth, as well as how to care for Earth. In this course the student will observe seed growth, explore the effects of flooding on a riverbank, and much, much more!

The lessons in this course are designed to accommodate a variety of learning styles, and to provide a variety of opportunities for the entire family to participate in the student's education. Some lessons, or groups of lessons, in each unit are activity-centered, which allows the student to engage the new concepts he encounters through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

**Unit 1: Be a Scientist**

In this introductory unit, your student will learn about the scientific method through the actions of two scientists who are studying volcanoes in Indonesia. Your student will learn how geologists Jim and Francesca use the steps of the scientific method to explore the nature of volcanic eruptions. He will read how this process helps them study the relationship between explosive volcanic eruptions and the element chlorine.

Your student will also be introduced to the many inquiry-based skills that he will use throughout this course. He will learn how to form a hypothesis, make observations, analyze data, draw conclusions, and communicate results. Before your student begins the next unit, he will learn about science safety and why it’s important for scientists to be safe when conducting scientific research.

Objectives:
- Explain why the scientific method is important to scientists
- Learn how scientists develop hypotheses and use inquiry skills
- Recognize that safety is very important in the field of science

**Lesson 1: The Scientific Method: Part 1**

Objectives:
- Identify the steps in the scientific method

**Lesson 2: The Scientific Method: Part 2**

Objectives:
- Learn how scientists test a hypothesis

**Lesson 3: Focus on Skills and Safety**

Objectives:
- Understand and use inquiry skills
- Identify the reasons why safety procedures are important

**Lesson 4: Unit Review and Test**

Objectives:
- Summarize unit concepts
Unit 2: Kingdoms of Life

In this unit, your student will investigate living things. She will learn that living things have specific needs, including food, water, shelter, and oxygen. Your student will compare and contrast plant and animal cells; and she will learn how cells combine to form tissues, organs, and organ systems within organisms.

During the unit, your student will conduct an observation-based experiment with plants, which will help her understand that, like animals, plants have special organ systems that perform certain jobs. She will learn how scientists classify living things into six kingdoms and will take an in-depth look into the plant kingdom. By the end of the unit, your student will have a better understanding of plant parts and how different plants reproduce.

Objectives:
- Identify the kingdoms of living things and summarize five functions of living things
- Compare and contrast plant and animal cells
- Observe plants and identify plant parts and their functions
- Be able to explain photosynthesis, respiration, and pollination
- Identify and describe different microorganisms

Lesson 1: Cells: Part 1

Objectives:
- Summarize five functions of living things

Lesson 2: Cells: Part 2

Objectives:
- Compare plant and animal cells

Lesson 3: Inquiry Skill: Observe

Objectives:
- Observe plants and interpret observations

Lesson 4: Classifying Living Things: Part 1

Objectives:
- Define and compare the kingdoms of living things

Lesson 5: Classifying Living Things: Part 2

Objectives:
- Describe different types of microorganisms

Lesson 6: The Plant Kingdom: Part 1

Objectives:
- Describe the functions of roots, stems, and leaves

Lesson 7: The Plant Kingdom: Part 2

Objectives:
- Explain the processes of photosynthesis and respiration
Unit 3: The Animal Kingdom

In this unit, your student will explore the animal kingdom. He will identify vertebrates and invertebrates and will study seven organ systems in animals. Your student will use the scientific method to form and test a hypothesis related to animal adaptations.

During the unit, your student will define the terms life cycle, life span, and metamorphosis. He will study animal reproduction and will learn how traits are passed on from parents to offspring. By the end of the unit, your student will have a better understanding of the different ways in which animals reproduce.

Objectives:
- Compare and contrast characteristics of vertebrates and invertebrates
- Identify and describe the basic needs of all animals
- Explain the seven organ systems and how they interact
- Define complete and incomplete metamorphosis
- Explain how certain traits are passed from parents to offspring

Lesson 1: Animals without Backbones: Part 1

Objectives:
- Define animal and list the basic needs and characteristics of animals

Lesson 2: Animals without Backbones: Part 2

Objectives:
- Summarize the characteristics of groups of invertebrates

Lesson 3: Animals with Backbones

Objectives:
- Define vertebrates and describe their characteristics
- Describe the seven groups of vertebrates

Lesson 4: Systems in Animals

Objectives:
- Identify seven organ systems of animals
- Summarize the structures and functions of the seven organ systems

Lesson 5: Lab: How do Feet Help Birds Move in Water?

Objectives:
Unit 4: Exploring Ecosystems

In this unit, your student will study ecosystems, communities, and populations, and she will learn how to identify biotic and abiotic factors within an ecosystem. In addition, your student will be introduced to Earth’s six major biomes: deciduous forest, tropical rain forest, grassland, desert, tundra, and taiga.

The latter part of the unit focuses on relationships among organisms in an ecosystem. Your student will define the terms producer, consumer, and decomposer; she will learn where these different types of organisms can be found in a food chain and in a food web. Your student will discover how organisms compete for vital resources in their ecosystems and how all organisms seek energy from food.

Objectives:
- Explain the difference between ecosystems, communities, and populations
- Identify and describe Earth’s major biomes
- Explain how energy flows throughout an ecosystem and describe food webs
- Be able to discuss predator-prey relationships

Lesson 1: Introduction to Ecosystems

Objectives:
- Identify abiotic and biotic factors in an ecosystem
- Describe ecosystems, communities, and populations

Lesson 2: Inquiry Skill: Predict

Objectives:
- Observe how seeds grow in polluted and unpolluted soil

Lesson 3: Biomes

Objectives:
- Define a biome
- Describe Earth’s six main biomes

Lesson 4: Relationships in Ecosystems: Part 1

Objectives:
- Explain how energy is cycled through an ecosystem

Lesson 5: Relationships in Ecosystems: Part 2
Objectives:
• Describe food webs and give examples of predator-and-prey relationships

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Lesson 6: Unit Review and Test

Objectives:
• Summarize unit concepts

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Unit 5: Surviving in Ecosystems

In this unit, your student will learn how organisms adapt to their surroundings. He will complete a reading assignment that provides examples of how certain animal species survive in desert ecosystems. Your student will also learn how some animals have body parts that are adaptations, such as a porcupine’s sharp quills.

During the unit, your student will also study plant adaptations, such as a cactus’ ability to store water. He will learn how an environmental change, such as a drought, can have a dramatic effect on plants in an ecosystem. By the end of the unit, your student will be able to provide examples of species that are endangered or extinct.

Objectives:
• Explain how adaptations allow plants and animals to survive in different environments
• Describe how living things and nonliving things can cause ecosystems to change
• Explain how changes to an ecosystem affects the living things in that ecosystem

Lesson 1: Animal Adaptations

Objectives:
• Define adaptation and give examples of how adaptations help animals to survive in their habitats
• Define and describe the types of symbiotic relationships

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Lesson 2: Inquiry Skill: Form a Hypothesis

Objectives:
• Form a hypothesis about how an organism’s coloring or patterning affects how easily the organism can be seen in an environment

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Lesson 3: Plants and Their Surroundings

Objectives:
• Describe ways in which plants respond to their environments
• Describe plant adaptations

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Lesson 4: Changes in Ecosystems: Part 1

Objectives:
• Describe how living and nonliving things cause ecosystems to change

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Lesson 5: Changes in Ecosystems: Part 2

Objectives:
• Understand that changes to ecosystems affect living organisms

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Lesson 6: Unit Review and Test

Objectives:
- Summarize unit concepts

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Unit 6: Shaping Earth

In this unit, your student will explore Earth’s structure, along with the processes that change the shape of Earth’s surface. She will learn how to identify landforms on Earth’s continents as well as physical structures on the ocean floor. Your student will conduct an experiment that will help her understand how landslides can dramatically change landscapes.

Towards the end of the unit, your student will discover how mountains, earthquakes, and volcanoes form. She will define folds and faults and will learn what people can do to protect themselves in case of an earthquake. Finally, your student will study how weather-related phenomena, such as floods, forest fires, tornadoes, and hurricanes, can cause dramatic changes to Earth’s surface.

Objectives:
- Describe Earth’s layers and explain how plate movement causes earthquakes and volcanic eruptions to occur
- Identify different landforms and features on the ocean floor
- Compare and contrast physical and chemical weathering
- Define erosion and explain how erosion builds up and breaks down Earth’s surface
- Describe the effects of floods, wildfires, tornadoes, hurricanes, landslides, and avalanches

Lesson 1: Earth

Objectives:
- Identify Earth’s landforms and the features of the ocean floor
- Describe the layers of Earth

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Lesson 2: Inquiry Skill: Experiment

Objectives:
- Experiment to learn how damage from landslides can be lessened

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Lesson 3: The Moving Crust: Part 1

Objectives:
- Describe how the movement of plates builds mountains and causes earthquakes and volcanoes

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Lesson 4: The Moving Crust: Part 2

Objectives:
- Explain how scientists use seismic waves to study earthquakes

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Lesson 5: Weathering and Erosion: Part 1

Objectives:
- Define and give examples of physical and chemical weathering

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Lesson 6: Weathering and Erosion: Part 2

Objectives:
Lesson 7: Changes Caused by the Weather: Part 1

Objectives:
- Describe the effects of floods, fires, tornadoes, and hurricanes

Lesson 8: Changes Caused by the Weather: Part 2

Objectives:
- Explain the causes and effects of landslides and avalanches

Lesson 9: Lab: What Happens When a River Floods?

Objectives:
- Model the effects of a flood on a riverbank

Lesson 10: Unit Review and Test

Objectives:
- Summarize unit concepts

Unit 7: Saving Earth's Resources

In this unit, your student will complete reading assignments on minerals, rocks, soil, and fossils. Your student's knowledge of natural resources will increase as he explores how fossil fuels are used and as he identifies renewable resources and nonrenewable resources.

Your student will also study Earth’s supply of saltwater and freshwater. He will explore how water is used and how water can become polluted. The unit will introduce your student to conservation. Your student will read about ways he can conserve resources at home.

Objectives:
- Explain mineral classification and describe the rock cycle
- Describe different types of soil and explain why some soils drain water better than others
- Define fossil fuels and identify renewable and nonrenewable resources
- Explain why land, water, and air are considered resources
- Discuss the effects of pollution and identify ways to conserve natural resources

Lesson 1: Minerals and Rocks: Part 1

Objectives:
- Describe the properties used to identify and classify minerals

Lesson 2: Minerals and Rocks: Part 2

Objectives:
- Compare the three types of rocks

Lesson 3: Inquiry Skill: Communicate

Objectives:
- Communicate the changes in size and shape of mineral grains under pressure
Lesson 4: Soil

Objectives:
- Describe the different layers of soil and how they form
- Define the texture, porosity, and permeability of soil

Lesson 5: Lab: How Different Soil Types Hold Minerals

Objectives:
- Analyze how soil permeability affects the draining away, or leaching, of nutrients and minerals during heavy rainfall

Lesson 6: Resources from the Past

Objectives:
- Describe the different kinds of fossils, the ways they form, and how they provide evidence of Earth's past
- Explain why fossil fuels are a valuable and nonrenewable resource

Lesson 7: Water

Objectives:
- Explain how the water cycle renews Earth's fresh water
- Describe ways people use and obtain fresh water

Lesson 8: Pollution and Conservation

Objectives:
- Identify the effects of pollution to land, water, and air
- Describe ways to reduce pollution and conserve resources

Lesson 9: Unit Review and Test

Objectives:
- Summarize unit concepts
SCIENCE 4 B
Science 4 B

Science is an adventure in which everyone can take part! In this second semester course, the student will be participating in scientific investigations of many different forms including simple observations and experiments. Results from these investigations will provide information about the surrounding world. The McGraw-Hill textbook, Science: A Closer Look, and the science kit are the primary resources for this course.

The Earth Science units provide an opportunity for the student to investigate the solar system and the effects of different climates on Earth. The Physical Science units enable the student to explore the composition and use of different forms of energy. In this course the student will analyze the effect of warmed air on weather, explore chemical reactions, create a compound machine, and much, much more!

The lessons in this course are designed to accommodate a variety of learning styles, and to provide a variety of opportunities for the entire family to participate in the student's education. Some lessons, or groups of lessons, in each unit are activity-centered, which allows the student to engage the new concepts he encounters through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

Unit 1: Weather and Climate

In the beginning of this unit, your student will be introduced to different types of weather. By studying the water cycle, your student will be able to explain how water moves on Earth’s surface and through its atmosphere. She will read about various forms of precipitation and will learn how different types of weather, such as hurricanes and tornadoes, form.

In the latter part of the unit, your student will explore climate. She will learn that climates differ on Earth; some regions have cold and dry climates, while others have warm, humid, and rainy climates. Your student will complete the unit by conducting an experiment to investigate how large masses of warm air can affect regional climates.

Objectives:
- Compare and contrast weather and climate and describe how weather can be measured
- Explain the water cycle and identify different cloud types
- Explain air masses and how hot and cold air affects the weather
- Identify different types of climate on Earth

Lesson 1: Air and Weather

Objectives:
- Define the atmosphere as a mixture of different gases
- Describe four properties of weather that can be measured and the tools used to measure them

Lesson 2: The Water Cycle: Part 1

Objectives:
- Sequence the steps of the water cycle

Lesson 3: The Water Cycle: Part 2

Objectives:
- Identify and describe types of clouds and precipitation

Lesson 4: Tracking the Weather

Objectives:
• Explain how air masses form and identify the types of weather they cause
• Forecast the weather by interpreting data on a weather map

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Lesson 5: Climate

Objectives:
• Define and give examples of climate
• Explain the main factors that determine climate

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Lesson 6: Lab: How Does Warmed Air Affect the Weather?

Objectives:
• Describe how warm air affects the weather

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Lesson 7: Unit Review and Test

Objectives:
• Summarize unit concepts

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Unit 2: The Solar System and Beyond

In this unit, your student will explore the many wonders of the universe. He will complete reading assignments that focus on Earth, the moon and sun, the inner and outer planets, and stars and constellations. Your student will practice the inquiry skill of data interpretation as he investigates a record of the moon’s phases.

During the unit, your student will learn that gravity is the force of attraction between the sun and planets in the solar system. He will learn how scientists use telescopes to study the rocky planets and the gas giants. By the end of the unit, your student will have a greater understanding of the universe and its phenomena, including constellations.

Objectives:
• Explain what causes day and night and the different seasons
• Describe the Earth-moon-sun relationship and describe Earth’s place in the solar system
• Compare and contrast the inner and outer planets
• Describe the main characteristics of the moon and the sun
• Be able to discuss stars and what they are made of

Lesson 1: Earth and Sun

Objectives:
• Explain how Earth’s rotation causes the cycle of day and night
• Explain why the sun’s apparent motion in the sky differs from season to season

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Lesson 2: Earth and Moon

Objectives:
• Explain why the moon is covered with craters
• Identify the causes of the moon's phases, solar eclipses, and lunar eclipses

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Lesson 3: Inquiry Skill: Interpret Data

Objectives:
Unit 3: Properties of Matter

In this unit, your student will investigate matter and how it can be measured and classified. Her reading assignments will cover the states of matter, properties of matter, and the system of measurement that scientists use to measure matter—the metric system. Your student will focus on length, width, area, volume, mass, and density.

In addition to measurement, your student will study classification. She will define the terms element, atom, metal, nonmetal, and metalloid; and she will learn how the elements are organized in the periodic table. By the end of the unit, your student will be prepared to study how matter can change states.

Objectives:
- Explain the states of matter and compare and contrast properties of matter
- Be able to discuss how the properties of matter can be measured
- Explain the periodic table and be able to discuss how the elements are arranged in the periodic table

Lesson 1: Describing Matter: Part 1

Objectives:
- Compare and contrast properties of matter

Lesson 2: Describing Matter: Part 2

Objectives:
- Define and describe the three states of matter

Lesson 3: Measurement

Objectives:
- Describe some properties of matter that can be measured
Unit 4: Matter and Its Changes

In this unit, your student will continue to learn about different types of matter. He will learn how to differentiate between a physical change and a chemical change and will discover that mixtures are simply combinations of matter.

In the beginning of the unit, your student will conduct an experiment that will allow him to practice using variables. He will determine how heat affects a liquid’s evaporation rate. Towards the end of the unit, your student will conduct another experiment to determine if lemon juice can prevent fruit from turning brown.

Objectives:
- Differentiate between physical and chemical changes
- Explain what a mixture is and describe how mixtures can be separated
- Define compounds and explain their properties
- Define and provide examples of acids and bases
Lesson 6: Compounds

Objectives:
- Describe how compounds form and their physical properties
- Compare and contrast acids and bases

Lesson 7: Lab: How Can You Change a Chemical Reaction?

Objectives:
- Predict which substance can prevent the oxidation of fruit

Lesson 8: Unit Review and Test

Objectives:
- Summarize unit concepts

Unit 5: Forces

Throughout this unit, your student will study forces and motion. She will define motion, speed, velocity, and acceleration, and she will learn how they are all related. Your student will watch movies that explain work, energy, and simple machines. She will discover how simple machines are used in everyday life.

By the end of the unit, your student will have a better understanding of how balanced forces and unbalanced forces affect an object's motion. She will be able to explain potential energy and kinetic energy, and she will also be able to describe the following forms of energy: chemical, electrical, light, mechanical, thermal, and nuclear. Your student will read how energy can be transferred and transformed.

Objectives:
- Define motion, speed, velocity, acceleration, friction, and gravity
- Explain how forces act on a moving object
- Define potential and kinetic energy and differentiate between work and energy
- Describe the six simple machines and what they are used for

Lesson 1: Motion and Forces

Objectives:
- Explain how motion, speed, velocity, and acceleration are related
- Summarize the forces that act on a moving object, including friction and gravity

Lesson 2: Changing Motion

Objectives:
- Demonstrate a basic understanding of how forces affect motion
- Explain how friction affects motion

Lesson 3: Work and Energy: Part 1

Objectives:
- Define work and energy

Lesson 4: Work and Energy: Part 2

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Unit 6: Energy

In this final unit, your student’s knowledge of energy will increase as he studies heat, sound, light, electricity, and magnetism. The first reading assignment in the unit will help your student understand the following terms: conduction, convection, radiation, insulator, and conductor. Your student will go on to learn how sound is produced and how sound can travel through a medium such as air or water.

Finally, your student will explore light, electricity, and magnetism. He will learn about the electromagnetic spectrum and will discover that although light is made up of waves, it travels in a straight line. Your student will investigate positive and negative particles and how they cause an object to become electrically charged. He will end the unit by studying magnetic particles, poles, and fields.

Objectives:
• Define heat and explain how heat is transferred between objects
• Explain how sound travels and define frequency, pitch, and volume
• Explain how light can be absorbed, reflected, or refracted
• Describe electricity and how objects can be electrically charged
• Define electromagnets and explain magnetic fields

Lesson 1: Heat

Objectives:
• Explain that heat flows from warmer materials to cooler materials
• Describe and define conduction, convection, and radiation

Lesson 2: Inquiry Skill: Infer

Objectives:
• Infer which material tested is the best insulator

Lesson 3: Sound

Objectives:
• Explain how sound is produced and how it travels through a medium
Lesson 4: Light: Part 1

Objectives:
- Demonstrate that light travels in a straight line

Lesson 5: Light: Part 2

Objectives:
- Describe ways light can be absorbed, reflected, or refracted by objects

Lesson 6: Electricity: Part 1

Objectives:
- Describe the characteristics of electrically charged objects

Lesson 7: Electricity: Part 2

Objectives:
- Explain the difference between static and current electricity

Lesson 8: Lab: Electrically Charged Balloons

Objectives:
- Learn how electric charge can be transferred

Lesson 9: Magnetism and Electricity: Part 1

Objectives:
- Describe a magnetic field and the effect of distance on magnetic force

Lesson 10: Magnetism and Electricity: Part 2

Objectives:
- Understand how an electromagnet, an electric motor, and a generator work

Lesson 11: Unit Review and Test

Objectives:
- Summarize unit concepts
SCIENCE 5 A
Science 5 A

Science is an ongoing process that constantly renders new discoveries! In this first semester course, the student will be sharpening his investigative skills and expanding upon his existing knowledge in order to make his own new discoveries. The McGraw-Hill textbook, Science: A Closer Look, and the science kit are the primary resources for the course. The opening unit explores the role of scientists and the scientific method. The life science units explore cells and heredity. The Earth science units provide an opportunity for the student to design experiments to investigate Earth’s composition and the factors that affect its composition.

The lessons in this course are designed to accommodate many learning styles, and to provide a variety of opportunities for the entire family to participate in the student’s education. Some lessons, or groups of lessons, in each unit are activity-centered, which allow the student to engage the new concepts he encounters through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

Unit 1: Be a Scientist

In this introductory unit, your student will learn about the scientific method through the actions of two scientists who work for the American Museum of Natural History. Your student will learn how biologists Liliana and Susan use the steps of the scientific method to explore how diseases affect organisms. He will read how this process helps them study the parasite that causes a particular disease called malaria.

During this unit, your student will be introduced to several skills that he will use throughout this course. He will learn how to test a hypothesis and how to analyze data and form conclusions. Your student will also learn about science safety and why it’s important to follow safety rules in any science laboratory.

Objectives:
- Explain how scientists use the scientific method to solve scientific problems
- Identify why safety procedures are important when conducting science experiments
- Describe how a hypothesis is formed and how scientists use inquiry skills

Lesson 1: The Scientific Method: Part 1

Objectives:
- Identify the steps in the scientific method

Lesson 2: The Scientific Method: Part 2

Objectives:
- Learn how scientists form and test a hypothesis

Lesson 3: Focus on Skills and Safety

Objectives:
- Understand and use inquiry skills
- Identify the reasons why safety procedures are important

Lesson 4: Unit Review & Unit Test

Objectives:
- Summarize chapter concepts

Unit 2: Cells and Kingdoms
In this unit, your student will explore different forms of life on Earth. She will carefully study plant and animal cells and will identify unicellular and multicellular organisms. Your student will delve deeper into the subject of organ systems; she will learn about the specific functions of organs within a system and will conduct an experiment on the heart.

During the unit, your student will review how organisms are classified into the following groups: kingdom, phylum, class, order, family, genus, and species. She will differentiate between animals that are vertebrates and invertebrates, and plants that are vascular and nonvascular. Your student will also take a closer look at bacteria and viruses. By the end of the unit, your student will have studied plant and animal classification in great detail.

Objectives:
- Explain the similarities and differences between plant and animal cells
- Describe how living things are organized into groups and identify organisms in the plant, animal, and fungi kingdoms
- Identify plant parts and their functions, including how leaves carry out photosynthesis
- List differences between invertebrates and vertebrates
- Summarize how body systems in animals work together to allow an animal to survive and perform functions

Lesson 1: Cells: Part 1

Objectives:
- Describe cells and explain how they are organized in living things

Lesson 2: Cells: Part 2

Objectives:
- Compare and contrast the structures of animals cells and plant cells

Lesson 3: Classifying Life: Part 1

Objectives:
- Describe kingdom and species

Lesson 4: Classifying Life: Part 2

Objectives:
- Describe the organisms in the animal, plant, and fungi kingdoms

Lesson 5: Plants: Part 1

Objectives:
- Describe the structure and function of roots

Lesson 6: Plants: Part 2

Objectives:
- Describe the structure and function of stems and leaves
- Discuss the process by which leaves carry out photosynthesis

Lesson 7: Classifying Animals: Part 1

Objectives:
- Define invertebrates; describe invertebrate groups
Lesson 8: Classifying Animals: Part 2
Objectives:
• Define vertebrates; describe the four major vertebrate groups

Lesson 9: Animal Systems: Part 1
Objectives:
• Summarize the functions of animal systems
• Describe how the skeletal system and muscular system work together to produce movement

Lesson 10: Animal Systems: Part 2
Objectives:
• Summarize the functions of animal systems

Lesson 11: Lab: When Does Your Heart Work the Hardest?
Objectives:
• Determine when your heart works the hardest

Lesson 12: Unit Review
Objectives:
• Summarize chapter concepts

Lesson 13: Unit Test

Unit 3: Parents and Offspring
In this unit, your student will explore plant and animal life cycles. He will review the parts of a flower and will differentiate between perfect and imperfect flowers. He will also review the stages of complete metamorphosis and will learn how fertilization occurs in animals. Your student will study sexual and asexual reproduction and will learn why organisms reproduce in different ways.

During the unit, your student will learn about heredity, or the passing of traits from parents to offspring. Your student will learn about inherited traits and will explore the difference between dominant and recessive traits. By the end of this unit, your student should be able to explain how an organism can inherit a gene for a specific trait, such as blue eye color.

Objectives:
• Compare and contrast sexual and asexual reproduction
• Explain the different life cycles of plants, including those of the angiosperm and conifer
• Explain the different life cycles of animals, including complete and incomplete metamorphosis
• Identify inherited traits and learned behaviors

Lesson 1: Reproduction
Objectives:
• Explain sexual and asexual reproduction
• Compare and contrast sexual and asexual reproduction

Lesson 2: Plant Life Cycles: Part 1
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Objectives:
- Describe the life cycles of mosses and ferns

Lesson 3: Plant Life Cycles: Part 2

Objectives:
- Learn about the angiosperm life cycle
- Understand the conifer life cycle

Lesson 4: Inquiry Skill: Observe

Objectives:
- Observe a flower and draw a diagram

Lesson 5: Animal Life Cycles

Objectives:
- Define complete and incomplete metamorphosis
- Discuss fertilization and explain how the processes of external and internal fertilization work

Lesson 6: Traits and Heredity

Objectives:
- Describe how traits are passed from one generation to the next
- Explain dominant and recessive traits

Lesson 7: Unit Review

Objectives:
- Summarize chapter concepts

Lesson 8: Unit Test

Unit 4: Interactions in Ecosystems

In this unit, your student will explore connections between organisms in an ecosystem. She will learn where producers, consumers, and decomposers fall within a food chain and will identify examples of herbivores, carnivores, and omnivores. Your student will explore how energy flows through each layer of an ecosystem—how it moves from the bottom to the top of a food pyramid.

During the unit, your student will learn how some organisms compete with each other for resources, while other organisms do things to help each other survive. Your student will learn about the following symbiotic relationships: mutualism, commensalism, and parasitism. She will also learn how organisms develop structural and/or behavioral adaptations so they can survive in a changing environment.

Objectives:
- Describe how energy flows throughout an ecosystem and explain food chains and food webs
- Identify structural and behavioral adaptations in animals and structural adaptations in plants
- Explain how living things compete for natural resources
- Define the following terms: habitat, niche, population, community

Lesson 1: Energy Flow in Ecosystems: Part 1
Lesson 2: Energy Flow in Ecosystems: Part 2

Objectives:
- Describe how food chains, food webs, and energy pyramids work

Lesson 3: Relationships in Ecosystems

Objectives:
- Explain how populations compete and are limited by the resources they need
- Define habitat, niche, symbiosis, commensalism, mutualism, and parasitism

Lesson 4: Inquiry Skill: Predict

Objectives:
- Predict how population size will change

Lesson 5: Adaptation and Survival: Part 1

Objectives:
- Explain structural and behavioral adaptations

Lesson 6: Adaptation and Survival: Part 2

Objectives:
- Describe plant and animal adaptations including camouflage and mimicry

Lesson 7: Unit Review

Objectives:
- Summarize chapter concepts

Lesson 8: Unit Test

Unit 5: Ecosystems and Biomes

In this unit, your student will explore ecosystems and biomes. He will study cycles in ecosystems, including the water cycle, the carbon cycle, and the nitrogen cycle—and will be able to explain why they are important. Your student will also study changes in ecosystems and how drastic changes can cause extinction.

During the unit, your student will read about the following biomes: desert, tundra, taiga, tropical rain forest, temperate rain forest, deciduous forest, and grassland. He will also explore ecosystems that are composed of fresh water, salt water, or a mixture of both. Your student will gain a clear understanding of different environments on Earth.

Objectives:
- Identify naturally-occurring cycles in ecosystems and explain how recycling and composting benefit the environment
- Identify different ways in which ecosystems can change and describe how a changed ecosystem affects the living things in it
• Identify and describe Earth's major biomes
• Summarize water ecosystems on Earth

**Lesson 1: Cycles in Ecosystems: Part 1**

Objectives:
• List the steps in the water, carbon, and nitrogen cycles and explain their importance

**Lesson 2: Cycles in Ecosystems: Part 2**

Objectives:
• Explain how recycling and composting benefit the ecosystem

**Lesson 3: Changes in Ecosystems: Part 1**

Objectives:
• Analyze how changes in ecosystems can cause extinction

**Lesson 4: Changes in Ecosystems: Part 2**

Objectives:
• Describe the natural and human-caused changes in ecosystems

**Lesson 5: Inquiry Skill: Interpret Data**

Objectives:
• Understand how the use of an insecticide affected bald eagles' eggs

**Lesson 6: Biomes: Part 1**

Objectives:
• Describe harsh climate biomes: desert, tundra, and taiga

**Lesson 7: Biomes: Part 2**

Objectives:
• Describe the biomes of forests and grasslands

**Lesson 8: Water Ecosystems: Part 1**

Objectives:
• Understand how oceans get salty

**Lesson 9: Water Ecosystems: Part 2**

Objectives:
• Describe freshwater, ocean, and estuary ecosystems

**Lesson 10: Unit Review**

Objectives:
Lesson 11: Unit Test

Unit 6: Our Dynamic Earth

In this unit, your student will learn about Earth's structure. She will explore features on Earth's surface and on the ocean floor, and will define the following terms: atmosphere, hydrosphere, lithosphere, asthenosphere, and biosphere. Your student will also explore topography and she will make a model of a topographic map.

During the unit, your student will learn how plate tectonics is related to mountain formation, volcanic eruptions, and earthquakes. She will watch several movies that explain this relationship in detail. Finally, your student will study weathering and erosion. She will be able to differentiate between chemical and physical weathering, and explain the processes of erosion and deposition.

Objectives:

- Describe Earth's physical features—those on landforms and on the ocean floor
- Explain Earth's layered interior and how topographical maps are useful tools
- Explain the theory of plate tectonics and how it relates to continental drift
- Describe earthquakes and volcanoes and where they occur
- Compare and contrast the processes of weathering and erosion

Lesson 1: Earth's Landforms: Part 1

Objectives:

- Classify Earth's physical features including landforms and features of the ocean floor

Lesson 2: Earth's Landforms: Part 2

Objectives:

- Define Earth's layers

Lesson 3: Inquiry Skill: Make a Model

Objectives:

- Construct a model of a mountain and manipulate it to produce a topographical map

Lesson 4: Plate Tectonics

Objectives:

- Discuss how the theory of plate tectonics explains continental drift
- Identify the processes that produce different kinds of mountains

Lesson 5: Volcanoes

Objectives:

- Explain why a volcano erupts
- Describe how volcanoes build land

Lesson 6: Earthquakes
Lesson 7: Shaping Earth’s Surface: Part 1

Objectives:
- Describe weathering

Lesson 8: Shaping Earth’s Surface: Part 2

Objectives:
- Discuss the relationship between erosion and deposition

Lesson 9: Unit Review

Objectives:
- Summarize chapter concepts

Lesson 10: Unit Test

Unit 7: Protecting Earth’s Resources

In this unit, your student will investigate Earth’s natural resources, including minerals, coal, oil, natural gas, water, and air. He will explore how fossil fuels formed and how fossils help scientists determine the age of rock layers. Your student will also learn how fossil fuels are used and will define renewable and nonrenewable resources.

During the unit, your student will conduct an experiment that will take several days to complete. He will determine what kind of soil is best for plant growth. Your student will finish the unit by reading and watching videos on air and water. He will learn why air and water are considered resources and how pollution affects them.

Objectives:
- Explain the rock cycle and identify the three main types of rocks
- Describe soil and how polluted soil affects living things
- Identify fossils and explain how fossil fuels form and how they are used to create energy
- Explain why air and water are considered natural resources
- Discuss the importance of conservation

Lesson 1: Minerals and Rocks: Part 1

Objectives:
- Compare and contrast igneous, sedimentary, and metamorphic rocks

Lesson 2: Minerals and Rocks: Part 2

Objectives:
- Compare and contrast igneous, sedimentary, and metamorphic rocks
- Trace the pathways of the rock cycle

Lesson 3: Inquiry Skill: Classify

Objectives:
- Classify rocks by their properties
Lesson 4: Soil

Objectives:
- Describe how soil is formed and kinds of soil
- Understand how soil is used and polluted

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Lesson 5: Fossils and Energy: Part 1

Objectives:
- Identify and compare types of fossils

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Lesson 6: Fossils and Energy: Part 2

Objectives:
- Discuss and identify renewable and nonrenewable energy resources, including fossil fuels

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Lesson 7: Air and Water: Part 1

Objectives:
- Explain why air and water are resources

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Lesson 8: Air and Water: Part 2

Objectives:
- Describe important ideas about the pollution and conservation of air and water

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Lesson 9: Unit Review

Objectives:
- Summarize chapter concepts

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Lesson 10: Unit Test
SCIENCE 5 B
Science 5 B

Science is an ongoing process that constantly renders new discoveries. In this second semester course, the student will be sharpening his investigative skills and expanding upon his existing knowledge in order to make his own new discoveries. The McGraw-Hill textbook, Science: A Closer Look, and the science kit are the primary resources for the course. The Earth science units provide an opportunity for the student to investigate weather patterns and the universe. The physical science units examine the characteristics of matter, energy, and forces.

The lessons in this course are designed to accommodate many learning styles, and to provide a variety of opportunities for the entire family to participate in the student's education. Some lessons, or groups of lessons, in each unit are activity-centered, which allow the student to engage the new concepts he encounters through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

Unit 1: Weather Patterns

In this unit, your student will explore weather patterns. She will learn how clouds form and why certain types of severe storms occur in specific locations. From the layers of the atmosphere to global climates, your student will explore the diverse nature of weather on Earth.

During the unit, your student will complete two labs. The first lab will require her to use the scientific inquiry skill of communication to investigate balloons. The second lab will give her the opportunity to form a hypothesis and conduct a hands-on experiment to determine if water vapor is in the air.

Objectives:
- Explain how different types of weather form in the atmosphere
- Describe how Earth's shape and tilt affect global temperatures and wind patterns
- Explain how different types of clouds and precipitation form
- Describe severe storms and how they form
- Identify different climates on Earth

Lesson 1: The Atmosphere and Weather: Part 1

Objectives:
- Explain how Earth's shape and tilt affect temperatures and winds

Lesson 2: The Atmosphere and Weather: Part 2

Objectives:
- Explain how global and local winds form

Lesson 3: Inquiry Skill: Communicate

Objectives:
- Find out and communicate whether balloons can be used to lift a notebook

Lesson 4: Clouds and Precipitation: Part 1

Objectives:
- Explain how clouds and precipitation form

Lesson 5: Clouds and Precipitation: Part 2
• Summarize how air masses and fronts affect the weather

**Lesson 6: Lab: Can You Tell that Water Vapor Is in the Air?**

Objectives:
• Find out how to determine if water vapor is in the air

**Lesson 7: Severe Storms: Part 1**

Objectives:
• Summarize the different kinds of severe storms
• Explain how severe storms form

**Lesson 8: Severe Storms: Part 2**

Objectives:
• Summarize the different kinds of severe storms
• Explain how severe storms form

**Lesson 9: Climate**

Objectives:
• Explain what determines an area's climate
• Summarize the factors that affect climate

**Lesson 10: Unit Review**

Objectives:
• Summarize chapter concepts

**Lesson 11: Unit Test**

**Unit 2: The Universe**

In this unit, your student will read and watch movies about various aspects of the universe. He will learn about the solar system, as a whole—and will then explore the relationship between the Earth, moon, and sun. Your student will read about human exploration and the solar system.

During the unit, your student will study stars. He will learn about the colors and sizes of stars, and will be able to explain the life cycle of a star in detail. Your student will also complete a hands-on experiment to determine how craters form on planets and their moons. By the end of the unit, your student will have a better understanding of the universe.

Objectives:
• Describe the sun-Earth-moon relationship and explain what causes seasons
• Explain why the moon has different phases and how eclipses occur
• Describe the planets and some of their defining features
• Summarize space exploration over time
• Describe stars and explain the Big Bang

**Lesson 1: Earth and Sun**

Objectives:
• Describe the movements of Earth and the sun
• Explain how Earth's movements cause the seasons and day and night
Lesson 2: Inquiry Skill: Use Numbers

Objectives:
- Use numbers to calculate a student’s age on other planets

Lesson 3: Earth and Moon

Objectives:
- Describe the features of the moon, and identify the relative positions of the moon, Earth, and the sun that produce each of the moon’s major phases
- Explain how eclipses and tides occur

Lesson 4: The Solar System: Part 1

Objectives:
- Describe the planets and some of their major features, as well as asteroids, meteors, and comets
- Describe how humans have explored the solar system

Lesson 5: The Solar System: Part 2

Objectives:
- Describe the planets and some of their major features, as well as asteroids, meteors, and comets
- Describe how humans have explored the solar system

Lesson 6: Stars and the Universe: Part 1

Objectives:
- Learn about the cycles, colors, and sizes of stars

Lesson 7: Stars and the Universe: Part 2

Objectives:
- Identify star systems and learn about the big bang theory

Lesson 8: Unit Review

Objectives:
- Summarize chapter concepts

Lesson 9: Unit Test

Unit 3: Comparing Kinds of Matter

In this unit, your student will begin to explore matter and its properties. Your student will study the periodic table and will read about different types of elements, including metals and nonmetals. She will also explore electrical conductivity with relation to metals and nonmetals.

During the unit, your student will learn about the structure of matter and will be able to identify the parts of an atom. She will learn how to compare different kinds of matter and
will explore matter in its different states. Finally, your student will learn how to make a scientific inference by completing the Inquiry Skill activity, Infer.

Objectives:
- Identify different types of matter and explain matter's three states
- Describe how matter can be measured using scientific tools
- Describe elements and explain where different elements are located on the periodic table
- Explain the differences between metals, nonmetals, and metalloids
- Explain how different elements can/cannot conduct electricity

**Lesson 1: Properties of Matter**

Objectives:
- Describe matter and the three states of matter: solid, liquid, and gas
- Measure and calculate density as mass divided by volume

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**Lesson 2: Inquiry Skill: Infer**

Objectives:
- Infer conclusions after experimenting and analyzing data gathered from an experiment and recorded on a chart

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**Lesson 3: Elements: Part 1**

Objectives:
- Explain the structure of matter, elements, and atoms
- Name the parts of an atom

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**Lesson 4: Elements: Part 2**

Objectives:
- Describe common elements and their properties

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**Lesson 5: Metals, Nonmetals, and Metalloids: Part 1**

Objectives:
- Describe the properties of metals, nonmetals, and metalloids

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**Lesson 6: Metals, Nonmetals, and Metalloids: Part 2**

Objectives:
- Determine whether an element is a metal, nonmetal, or metalloid

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**Lesson 7: Lab: Electrical Conductivity**

Objectives:
- Compare the conductivity of metals and nonmetals

**Lesson 8: Unit Review**

Objectives:
- Summarize chapter concepts

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**Lesson 9: Unit Test**

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Unit 4: Physical and Chemical Changes

In this unit, your student will focus on learning about physical and chemical changes in matter. He will explore how mixtures form and will investigate whether or not a mixture can be separated into its parts. He will also investigate what temperature of water freezes the fastest—hot, warm, cool, or cold.

During the unit, your student will complete reading assignments about chemical changes, and acids and bases. He will learn how to determine whether a reaction is a chemical reaction or a physical reaction. He will also learn how salts are formed.

Objectives:
- Explain physical and chemical changes in matter
- Describe what a mixture is and explain how mixtures can be separated
- Describe compounds and explain how to identify chemical changes
- Define acids, bases, and salts and explain their properties

Lesson 1: Changes of State

Objectives:
- Learn that changes of state occur at distinct temperatures or points
- Predict whether an object will expand or contract based on a change in temperature

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Lesson 2: Inquiry Skill: Use Variables

Objectives:
- Investigate whether hot water, warm water, cool water, or cold water freezes fastest

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Lesson 3: Mixtures: Part 1

Objectives:
- Identify different kinds of mixtures and their parts

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Lesson 4: Mixtures: Part 2

Objectives:
- Understand methods of separating mixtures

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Lesson 5: Lab: How Can You Separate Mixtures?

Objectives:
- Compare and contrast different methods of separating a mixture

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Lesson 6: Compounds and Chemical Changes: Part 1

Objectives:
- Find that compounds are made of two or more elements and have different properties than their component elements

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Lesson 7: Compounds and Chemical Changes: Part 2

Objectives:
- Learn the common signs of chemical change

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Lesson Guide (Coaching Guide):

Lesson 8: Acids, Bases, and Salts: Part 1

Objectives:
• Describe the properties of acids and bases, and find out how indicators work with them

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Lesson 9: Acids, Bases, and Salts: Part 2

Objectives:
• Describe the properties of acids and bases, and find out how indicators work with them
• Learn how salts are formed

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Lesson 10: Unit Review

Objectives:
• Summarize chapter concepts

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Lesson 11: Unit Test

Unit 5: Using Forces

In this unit, your student will learn about forces and motion. She will complete labs that will require her to measure the acceleration of a model car and measure the effect of friction on the energy of an object. Your student will also investigate the six different types of simple machines.

During the unit, your student will learn how motion is affected by the force of gravity. She will define balanced and unbalanced forces and will explore Newton’s three laws of motion. Finally, your student will learn how energy is related to work.

Objectives:
• Define velocity, speed, and acceleration and explain the relationship between position and motion
• Describe how motion is affected by gravity and friction
• Explain Newton’s three laws of motion and provide examples for each law
• Differentiate between work and energy and explain potential and kinetic energy
• List the six simple machines and explain how they are used

Lesson 1: Motion: Part 1

Objectives:
• Understand the relationship between position, motion, velocity, and acceleration

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Lesson 2: Motion: Part 2

Objectives:
• Calculate velocity and acceleration

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Lesson 3: Forces and Motion: Part 1

Objectives:
• Understand how gravity and friction affect motion

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Lesson 4: Forces and Motion: Part 2

Objectives:
- Learn about balanced and unbalanced forces
- Learn how to apply Newton’s three laws of motion

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Lesson 5: Inquiry Skill: Measure

Objectives:
- Measure the acceleration of a model car

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Lesson 6: Work and Energy

Objectives:
- Define work and energy
- Understand how work and energy are related

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Lesson 7: Lab: What Affects Potential and Kinetic Energy?

Objectives:
- Measure the effect of friction on the energy of an object

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Lesson 8: Simple Machines

Objectives:
- Identify the six types of simple machines
- Calculate the output force and output distance for a given effort force and effort distance

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Lesson 9: Unit Review

Objectives:
- Summarize chapter concepts

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Lesson 10: Unit Test

Unit 6: Using Energy

In this final unit, your student will explore various types of energy: heat, sound, light, electricity, and magnetism. He will complete three labs that will require him to develop a hypothesis about heat flow, explore the pitch of a sound, and examine the polarity of a magnet.

During the unit, your student will learn how to differentiate between heat and energy. He will also learn how light travels and how colors are made. By the end of this unit, your student will have a better understanding of different forms of energy and how energy is used.

Objectives:
- Explain the difference between temperature and heat
- Explain how sound travels and define frequency, pitch, and volume
- Understand how light travels and explain how different colors form
- Define static electricity and describe electric circuits
- Explain magnetism and describe how a magnet works

Lesson 1: Heat

Objectives:
• Learn the difference between heat and energy
• Find out how heat is transferred by conduction, convection, and radiation

**Lesson 2: Inquiry Skill: Form a Hypothesis**

Objectives:
• Form a hypothesis about how temperature change from heat flow is related to an object's mass

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**Lesson 3: Sound**

Objectives:
• Find out how sound waves travel and how echolocation works
• Learn the parts of a wave: frequency, pitch, and volume

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**Lesson 4: Lab: How Can You Change a Sound?**

Objectives:
• Learn how the length of a column of vibrating air affects the pitch of a sound

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**Lesson 5: Light**

Objectives:
• Learn that light is a wave and a particle
• Recognize that light can be reflected and bent, and that it has wavelengths and colors

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**Lesson 6: Electricity**

Objectives:
• Understand static electricity and the attraction between charged objects
• Describe the different types of electric circuits

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**Lesson 7: Magnetism**

Objectives:
• Explain how magnetism works and how electromagnets work and are used
• Describe how generators produce electricity

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**Lesson 8: Lab: Electric Current and Electromagnets**

Objectives:
• Relate the direction of current flow to the polarity of a magnet

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**Lesson 9: Unit Review**

Objectives:
• Summarize chapter concepts

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**Lesson 10: Unit Test**

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SCIENCE 6 A
Science 6 A

Welcome to Science 6, an innovative course based on the framework for the Next Generation Science standards (NGSS). NGSS focuses on science and engineering practices; Earth, life and physical science core ideas; and fundamental crosscutting concepts vital to relating the various fields of science and developing a scientific world view. The course provides the student opportunities to engage in inquiry-based investigations, STEM (Science Technology Engineering Mathematics) projects, and other dynamic activities. Hands-on and online activities encourage the student to make connections, collaborate, and reflect on his or her learning. Because the course is designed to meet both national and state-based standards, the sequence of content will vary by state.

Tip: Links to Pearson® student interactive SCIENCE online textbooks have been added to the Backpack in the Web Links section. These textbooks are intended as supplemental resources as they are organized differently than this course.

Unit 1: Introduction to Science

In this unit, you will explore what it means to think like a scientist and carry out scientific investigations using the scientific method, a process that is essential to scientific inquiry and problem solving. You will learn how to design and conduct a sound science experiment and how to use math skills to take measurements and collect and analyze data. As you work through the unit, you will gain an appreciation for the attitudes that scientists possess and for the reason behind using a standard system of measurement in science. You will identify scientific tools that are used to solve problems and why it is important to prepare and use caution when carrying out investigations in the laboratory and in the field.

Objectives:

• Explain what scientific inquiry is and describe the attitudes that are necessary for thinking scientifically
• List the steps of the scientific method and apply the scientific processes that are important to science investigations
• Identify the math skills and tools that scientists use in collecting data, making measurements, experimentation, and analyzing data
• Describe the goal of technology and explain how technology relates to science
• Explain why preparation is important to doing science experiments in the lab and in the field

Lesson 1: Thinking like a Scientist

Objectives:

• Identify the steps of the scientific method
• Identify and apply the scientific processes that are important in solving problems
• Describe the attitudes, or habits of mind, that are necessary for thinking scientifically, ethically, and without bias

Lesson 2: Inquiry

Objectives:

• Explain what a scientific inquiry is and how it involves posing questions and developing hypotheses
• Describe how to design and conduct an experiment so that it uses sound scientific principles
• Differentiate between a scientific theory and a scientific law

Lesson 3: Investigation

Objectives:

• Describe the importance of investigation in science
• Apply the scientific method and processes in testing a hypothesis
• Distinguish between qualitative and quantitative data

Lesson 4: Scientific Tools: Mathematics

Objectives:
• Describe math skills scientists use in collecting data and making measurements
• Identify the math tools scientists use to analyze their data

Lesson 5: Scientific Tools: Measurement

Objectives:
• Explain why scientists use a standard measurement system
• Identify the SI units and the tools of measure for length, mass, volume, density, time, and temperature

Lesson 6: Scientific Tools: Models

Objectives:
• Describe the different types of systems and identify characteristics that all systems share
• Explain why models are used in science

Lesson 7: Scientific Tools: Technology

Objectives:
• Describe the goal of technology and explain how technology relates to science
• Identify factors that cause technology to progress

Lesson 8: Being Safe in the Lab

Objectives:
• Explain why preparation is important in carrying out investigations in the lab and in the field
• Describe what you should do if an accident occurs in the lab
• Identify specific safety symbols that are commonly found in science labs

Lesson 9: Introduction to Science Unit Review (two-day lesson)

Objectives:
• Explain what scientific inquiry is and describe the attitudes that are necessary for thinking scientifically
• List the steps of the scientific method and apply the scientific processes that are important to science investigations
• Identify the math skills and tools that scientists use in collecting data, making measurements, experimentation, and analyzing data
• Describe the goal of technology and explain how technology relates to science
• Explain why preparation is important to doing science experiments in the lab and in the field

Lesson 10: Introduction to Science Unit Test

Unit 2: Structure, Function, and Information Processing

In this unit, you will explore, describe, discuss, and investigate the characteristics and basic needs of living things as you engage in hands-on and virtual activities. You will model the basic building blocks of life, explore the body systems of plants and animals, and discover how these systems work together to keep organisms alive.

Objectives:
• Describe the composition of living things and investigate the tools scientists use to study them
• Identify the resources needed for living things to survive and investigate the effects of limited resources
• Use models to illustrate and explain how cell structure is related to cell function
• Summarize the way in which body systems work together to keep an organism alive
• Plan and conduct investigations that show how organisms sense and react to their surroundings

Lesson 1: What Is Life? (two-day lesson)
• Identify the characteristics of living things and their basic needs
• Investigate and generate evidence that organisms need food and water, a way to dispose of waste, and space to survive

Lesson 2: The Chemistry of Life (two-day lesson)

Objectives:
• Distinguish between inorganic and organic molecules
• Carry out investigations to identify the nutrients in food
• Communicate the reason that carbon and water are essential to living things
• Identify the elements and molecules commonly found in living things

Lesson 3: Cells

Objectives:
• Describe a cell
• Explain how scientists discovered cells and how the cell theory was developed
• Analyze the way a microscope works
• Distinguish between prokaryotic cells and eukaryotic cells
• Identify structures within a cell and describe their function

Lesson 4: The Parts of a Cell (two-day lesson)

Objectives:
• Identify and explain the function of specific cell organelles, including the nucleus, mitochondria, chloroplasts, ribosomes, endoplasmic reticulum, vacuole, Golgi bodies, and lysosomes
• Distinguish between the cell membrane and cell wall and explain the functions of each

Lesson 5: Cell Membrane

Objectives:
• Analyze how the cell membrane allows substances into and out of the cell
• Distinguish between active and passive transport and identify substances that are transported by each method
• Compare and contrast diffusion and osmosis
• Describe how substances move across the cell membrane in terms of concentration gradients
• Explain the difference between endocytosis and exocytosis

Lesson 6: Cells Working Together (two-day lesson)

Objectives:
• Distinguish between unicellular and multicellular organisms
• Explain the relationship between cells, tissues, organs, and organ systems

Lesson 7: Plant Body Systems

Objectives:
• Identify the three major body systems of a plant and explain their functions
• Analyze how the structure of plant tissue is related to its function
• Explain the difference between phloem and xylem

Lesson 8: Plant Response

Objectives:
• Identify and give examples of plant tropisms
• Carry out experiments to investigate plant tropisms
• Communicate ways in which plants respond to seasonal changes

Lesson 9: Animals

Objectives:
Lesson 10: Animal Body Plans

Objectives:
- Explain how symmetry is related to body structure in animals
- Classify animals into phyla and give an example of each

Lesson 11: Animal Body Systems

Objectives:
- Analyze the process of cellular respiration and explain its function
- Explain the function of the skeletal, digestive, respiratory, circulatory, and excretory systems
- Summarize the way the digestive, respiratory, and circulatory systems work together in animals

Lesson 12: Animal Response and Memory (two-day lesson)

Objectives:
- Explain the relationship between the senses, sensory neurons, interneurons, and motor neurons
- Summarize the difference between reflexes and voluntary movement and give examples of each
- Plan and conduct investigations into how animals respond to their surroundings
- Compare short-term memory and long-term memory and how they are stored

Lesson 13: Structure, Function, Information Processing Review (two-day lesson)

Objectives:
- Review the concepts presented in the Structure, Function, and Information Processing unit

Lesson 14: Structure, Function, Information Processing Test

Unit 3: Reproduction and Development of Organisms

In this unit, you will explore, describe, discuss and investigate the reproduction and development of organisms as you engage in hands-on and virtual activities. You will compare types of reproduction, explore how plants use animals to help them reproduce, and discuss the roles of environment and genetics in the development and growth of organisms.

Objectives:
- Discuss how the growth of organisms is affected by environmental and genetic factors
- Demonstrate that plants use photosynthesis to grow throughout their lives
- Plan and conduct investigations into how animal behaviors and plant structures affect the successful reproduction of the plant
- Analyze empirical evidence that explains how the chance of successful reproduction depends on animal behaviors
- Communicate ways that technology makes it possible to influence the inheritance of traits

Lesson 1: Flowers and Fruit (two-day lesson)

Objectives:
- Understand that some plants have developed specialized features that enhance animal behaviors that aid in the plant’s reproduction
- Analyze how flower structure is related to its function
- Analyze empirical evidence that explains how the chance of successful reproduction depends on animal behaviors
Lesson 2: Seeds and Spores (two-day lesson)

Objectives:
- Understand that plants reproduce in a variety of ways
- Distinguish gymnosperms and angiosperms
- Illustrate the alternation of generations

Lesson 3: Plant Growth (two-day lesson)

Objectives:
- Demonstrate that plants use photosynthesis to grow throughout their lives
- Explain that organisms are regulated both internally and externally
- Discuss how environmental conditions can affect the growth of plants

Lesson 4: Animal Reproduction

Objectives:
- Give examples of characteristic behaviors that increase the odds of reproduction in animals
- Contrast internal and external fertilization and explain the advantages and disadvantages of each

Lesson 5: Animal Development

Objectives:
- Understand that some animals undergo metamorphosis, while others do not
- Explain the advantages and disadvantages of internal versus external development on land
- Discuss how environmental conditions can affect the growth of animals

Lesson 6: Human Growth and Reproduction

Objectives:
- Identify and explain the function of the structures of the male and female reproductive systems
- Summarize the stages of human development from fertilization to birth
- Use models to understand how a zygote develops and how a developing embryo is protected
- Explain how a developing embryo is nourished

Lesson 7: Human Inheritance (two-day lesson)

Objectives:
- Understand how human gender is determined
- Distinguish between human traits that are sex-linked and those that are not
- Use Punnett squares and pedigrees to demonstrate how human traits are inherited
- Identify human genetic syndromes

Lesson 8: Using Genetic Information (two-day lesson)

Objectives:
- Communicate ways that technology makes it possible to influence the inheritance of traits
- Discuss the advantages and disadvantages of the use of genetic information in society
- Give examples of the importance of selective breeding in society

Lesson 9: Reproduction and Development of Organisms Review (two-day lesson)

Objectives:
- Discuss how the growth of organisms is affected by environmental and genetic factors
• Demonstrate that plants use photosynthesis to grow throughout their lives
• Plan and conduct investigations into how animal behaviors and plant structures affect the successful reproduction of the plant
• Analyze empirical evidence that explains how the chance of successful reproduction depends on animal behaviors
• Communicate ways that technology makes it possible to influence the inheritance of traits

Lesson 10: Reproduction and Development of Organisms Test

Unit 4: Interdependent Relationships in Ecosystems

In this unit, you will explore, describe, discuss, and investigate the relationships between organisms in an ecosystem as you engage in hands-on and virtual activities. You will explore the effects of predation, competition, and social interactions on the survival of individual organisms and on larger populations, model an ecosystem to determine its carrying capacity, and evaluate how human activities and biodiversity affect one another.

Objectives:
• Use models to illustrate and explain the factors that determine the number of organisms an ecosystem can support
• Recognize competitive, predatory, and mutually beneficial interactions between organisms, and give an example of each
• Describe biodiversity and its role in a healthy ecosystem
• Evaluate and discuss the ways in which human activity and biodiversity affect one other

Lesson 1: Populations (two-day lesson)

Objectives:
• Use models to illustrate population changes within an ecosystem
• Summarize reasons why populations increase and decrease and give examples of each
• Relate limiting factors to carrying capacity
• Identify limiting factors affecting a population
• Explain what is meant by carrying capacity

Lesson 2: Competition and Predation

Objectives:
• Identify competitive and predatory interactions between organisms and give an example of each
• Explain how adaptations help organisms survive
• Recognize patterns between the number of prey in an ecosystem and the number of predators
• Describe the roles of organisms within an ecosystem

Lesson 3: Symbiosis

Objectives:
• Distinguish between the three types of symbiosis and give an example of each

Lesson 4: Behavior (two-day lesson)

Objectives:
• Recognize competitive, predatory, and mutually beneficial interactions between organisms and give an example of each
• Distinguish between instinct and learning
• Explain how a behavior can be an adaptation
• Describe cyclic behavior

Lesson 5: Biodiversity

Objectives:
• Describe biodiversity and its role in a healthy ecosystem
• Explain the role of a keystone species in a healthy ecosystem
Lesson 6: Changes in Biodiversity

Objectives:
- Evaluate and discuss the ways in which human activity and biodiversity affect one another

Lesson 7: Space to Live (two-day lesson)

Objectives:
- Identify the way humans use land and how this affects biodiversity
- Evaluate methods of waste disposal

Lesson 8: Impact of Energy Use

Objectives:
- Explain where fossil fuels come from and how obtaining and burning them affects the environment
- Compare renewable and nonrenewable resources and discuss the effects of each on biodiversity
- Summarize how humans can conserve energy and how this affects biodiversity

Lesson 9: Clean Air

Objectives:
- Summarize sources of air pollution, the effect it has on the environment, and solutions to prevent it

Lesson 10: Clean Water (two-day lesson)

Objectives:
- Summarize sources of water pollution, the effect it has on the environment, and solutions to prevent it
- Discuss the effects of human activity on the environment and ways of lessening the impacts of those activities

Lesson 11: Ecosystem Recovery (two-day lesson)

Objectives:
- Explain the process of succession
- Describe how changes in an ecosystem can affect organisms that live there
- Describe the amount of time needed for ecosystem recovery

Lesson 12: Interdependent Relationships in Ecosystems Review (two-day lesson)

Objectives:
- Use models to illustrate and explain the factors that determine the number of organisms an ecosystem can support
- Recognize competitive, predatory, and mutually beneficial interactions between organisms, and give an example of each
- Describe biodiversity and its role in a healthy ecosystem
- Evaluate and discuss the ways in which human activity and biodiversity affect one other

Lesson 13: Interdependent Relationships in Ecosystems Test

Objectives:
- Use models to illustrate and explain the factors that determine the number of organisms an ecosystem can support
- Recognize competitive, predatory, and mutually beneficial interactions between organisms and give an example of each
- Describe biodiversity and its role in a healthy ecosystem
- Evaluate and discuss the ways in which human activity and biodiversity affect one other
SCIENCE 6 B
Welcome to Science 6, an innovative course based on the framework for the Next Generation Science standards (NGSS). NGSS focuses on science and engineering practices; Earth, life and physical science core ideas; and fundamental crosscutting concepts vital to relating the various fields of science and developing a scientific world view. The course provides the student opportunities to engage in inquiry-based investigations, STEM (Science Technology Engineering Mathematics) projects, and other dynamic activities. Hands-on and online activities encourage the student to make connections, collaborate, and reflect on his or her learning. Because the course is designed to meet both national and state-based standards, the sequence of content will vary by state.

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Unit 1: Introduction to Planet Earth

In this unit, you will gain an understanding of why Earth can be described as a system with four main parts, and you will explore some of Earth’s properties that make it suitable for life. You will study Earth’s atmosphere and learn how temperatures on Earth are just right for various life forms. By studying Earth’s rotation and its revolution, you will learn what causes day and night and why there are seasonal cycles on the “blue planet.” By the end of the unit, you will also be able to describe characteristics of Earth’s moon, list the phases of the moon, and explain why the moon goes through phases. This unit will give you an introductory look at Earth and its place in the solar system, and it will prepare you for upcoming units in astronomy and space science.

Objectives:
• Identify and describe the four main components of the Earth system and explain the properties of Earth that support life
• Define rotation and revolution and explain why day and night and seasons occur
• Identify what determines the strength of the force of gravity between two objects and describe what factors keep the moon and Earth in orbit
• Describe the features and characteristics of the moon and explain why the moon has phases and the effect the sun and the moon have on tides
• Define the term eclipse and explain when solar and lunar eclipses occur

Lesson 1: Systems of the Earth

Objectives:
• Identify and describe the main components of the Earth system: atmosphere, geosphere, biosphere, and hydrosphere
• Summarize the effects of constructive and destructive forces

Lesson 2: Properties of Planet Earth that Support Life

Objectives:
• Explain the properties of Earth that support life

Lesson 3: Gravity and Motion (two-day lesson)

Objectives:
• Identify what determines the strength of the force of gravity between two objects
• Describe what factors keep the moon and Earth in orbit

Lesson 4: Earth’s Day and Night

Objectives:
• Define rotation and revolution
• Describe the process by which day and night occur

Lesson 5: Reason for the Seasons (two-day lesson)

Objectives:
• Describe what causes the cycle of seasons on Earth
Lesson 6: Earth’s Moon (two-day lesson)

Objectives:
- Explain the features and characteristics of the moon
- Explain why the moon has phases

Lesson 7: Eclipses

Objectives:
- Describe solar and lunar eclipses
- Explain when eclipses occur

Lesson 8: Tides

Objectives:
- Define tides
- Describe the effects of the moon and sun on tides
- Identify and explain spring and neap tides

Lesson 9: Introduction to Planet Earth Unit Review (two-day lesson)

Objectives:
- Identify and describe the four main components of the Earth system and explain the properties of Earth that support life
- Define rotation and revolution and explain why day and night and seasons occur
- Identify what determines the strength of the force of gravity between two objects and describe what factors keep the moon and Earth in orbit
- Describe the features and characteristics of the moon and explain why the moon has phases and the effect the sun and the moon have on tides
- Define the term eclipse and explain when solar and lunar eclipses occur

Lesson 10: Introduction to Planet Earth Unit Test

Unit 2: Weather and Climate

In this unit, you will relate temperature and precipitation from around the globe to variations in weather. You will assess severe weather events and their likelihood. You will summarize the influences that cause uneven heating of Earth's surface and the resulting regional climates. You will relate the sun's energy to greenhouse gases in the atmosphere and their impact on temperature and habitability. You will evaluate carbon storage within Earth's systems.

Objectives:
- Describe the water cycle and its processes
- Name the main kinds of storms and explain how they form
- Explain the factors that affect climate
- Discuss greenhouse gases and their effect on organisms and the environment

Lesson 1: The Water Cycle (two-day lesson)

Objectives:
- Explain the water cycle
- Describe humidity and how it is measured

Lesson 2: Clouds

Objectives:
- Explain how clouds form
- Name the three kinds of clouds and describe the weather they indicate

Lesson 3: Precipitation (two-day lesson)

Objectives:
- Identify the common types of precipitation
- Describe floods and droughts and their effects and explain how they can be prevented

Lesson 4: Severe Weather (two-day lesson)
Objectives:
- Describe the main kinds of storms and explain how they form
- Explain measures that can be taken to ensure safety in a storm

Lesson 5: Predicting the Weather

Objectives:
- Explain how weather forecasts use observations, data, and technology to predict the weather
- Describe what information can be learned from the information shown on weather maps

Lesson 6: What Causes Climate?

Objectives:
- Identify the factors that influence temperature
- Identify the factors that influence precipitation

Lesson 7: Climate Regions (two-day lesson)

Objectives:
- Explain how climate regions are classified
- Describe the six climate regions
- Explain how organisms adapt to certain climates

Lesson 8: Greenhouse Gases and Habitation (two-day lesson)

Objectives:
- Describe greenhouse gases and explain their effects on the environment and on organisms
- Explain measures for reducing global warming

Lesson 9: Weather and Climate Unit Review (two-day lesson)

Objectives:
- Describe the water cycle and its processes
- Name the main kinds of storms and explain how they form
- Explain the factors that affect climate
- Discuss greenhouse gases and their effect on organisms and the environment

Lesson 10: Weather and Climate Unit Test

Objectives:
- Describe the water cycle and its processes
- Name the main kinds of storms and explain how they form
- Explain the factors that affect climate
- Discuss greenhouse gases and their effect on organisms and the environment

Unit 3: Structures and Properties of Matter

In this unit, you will investigate the physical world from a chemical viewpoint. You will compare the physical and chemical properties of substances, create models of molecules, and demonstrate how different factors, such as thermal energy, affect substances. You will have an opportunity to design a procedure to separate a mixture and discuss with your classmates how thermal energy impacts a substance in different phases.

Objectives:
- Construct models that show that atoms are the building blocks of molecules
- Investigate and explain how pure substances differ from one another
- Describe and model the effect of the removal and addition of thermal energy on motion and temperature of different substances
- Explain the effect on atomic and molecular motion of adding or removing thermal energy to a pure substance in different phases and during a phase change
- Measure the effect sample size has on the change in temperature of a sample

Lesson 1: Describing Matter
Objectives:
- Define matter
- Identify and describe physical and chemical properties of matter

Lesson 2: Atoms and Molecules

Objectives:
- Create models to analyze the composition of molecules in terms of atoms
- Recognize that there are over 100 different types of atoms, which can be combined in various ways to produce different substances
- Describe the composition of a pure substance

Lesson 3: Mixtures (two-day lesson)

Objectives:
- Describe the properties of a mixture
- Compare heterogeneous and homogeneous mixtures
- Design and carry out a plan to separate a mixture
- Make revisions to a plan based on observations and analysis

Lesson 4: Measuring Matter (two-day lesson)

Objectives:
- Explain the relationships among mass, weight, volume, and density
- Use the density equation to calculate density

Lesson 5: Physical and Chemical Changes (two-day lesson)

Objectives:
- Compare chemical and physical changes
- Utilize models to explain that atoms combine to form new substances of varying complexity
- Demonstrate the law of conservation of mass
- Identify Antoine Lavoisier’s role in the discovery of the law of conservation of mass
- Explain that the body of science grows due to the contributions of many scientists

Lesson 6: States of Matter

Objectives:
- Distinguish among solids, liquids, and gases at the molecular level.

Lesson 7: Phase Changes (two-day lesson)

Objectives:
- Relate phase changes to changes in motion of particles of matter due to changes in temperature and/or pressure
- Demonstrate that the particles of matter are in motion
- Utilize models to demonstrate and predict phase changes due to changes in temperature or pressure
- Argue the effects of adding or removing thermal energy to a pure substance in different phases and during a phase change

Lesson 8: Lab: Factors Affecting Temperature Change (two-day lesson)

Objectives:
- Investigate the effects the nature of the matter, the size of the sample, and the environment have on the amount of energy transfer needed to change the temperature of a sample of matter by a given amount
- Describe the effects of the removal and addition of thermal energy on the temperature of different substances

Lesson 9: Structures and Properties of Matter Review (two-day lesson)

Objectives:
- Construct models that show that atoms are the building blocks of molecules
• Investigate and explain how pure substances differ from one another
• Describe and model the effect of the removal and addition of thermal energy on motion and temperature of different substances
• Explain the effect on molecular motion of adding or removing thermal energy to a pure substance in different phases and during a phase change
• Measure the effect sample size has on the change in temperature of a sample

Lesson 10: Structures and Properties of Matter Unit Test

Unit 4: Forces and Motion
Can you identify three forces acting on you right now? In this unit, you will investigate forces and motion by engaging in hands-on and virtual activities. You will demonstrate that outside forces can affect an object's motion, shape, and orientation. You will also collect data to verify Newton's third law of motion and explain the cause and effect relationship between an object's motion and the sum of the forces acting on it.

Objectives:
• Explain how motion is described
• Analyze how outside forces affect an object's motion, position, and shape
• Demonstrate Newton's third law of motion
• Analyze how an object's mass affects its acceleration, and how a force exerted on the object affects its acceleration

Lesson 1: Reference Points and Motion
Objectives:
• Explain the importance of an observer's point of reference when describing motion
• Explain the importance of using the correct units when describing motion

Lesson 2: Speed, Velocity, and Acceleration
Objectives:
• Investigate and analyze how an object's motion can be affected by speed, velocity, and acceleration

Lesson 3: The Nature of Force
Objectives:
• Investigate and analyze how an object's motion can be affected by outside forces
• Use data to verify that an object's motion is the result of the total forces acting on the object

Lesson 4: The Effects of Force
Objectives:
• Investigate and analyze how an object's shape can be affected by outside forces

Lesson 5: Friction and Gravity
Objectives:
• Investigate and analyze how an object's motion, shape, and orientation can be affected by friction and gravity

Lesson 6: Newton's First Law of Motion (two-day lesson)
Objectives:
• Investigate and analyze how an object's motion can be affected by outside forces according to Newton's first law of motion

Lesson 7: Newton's Second Law of Motion (two-day lesson)
Objectives:
• Investigate and analyze how an object's motion can be affected by outside forces according to Newton's second law of motion

Lesson 8: Newton's Third Law of Motion (two-day lesson)

Objectives:
• Investigate and analyze how an object's motion can be affected by outside forces according to Newton's third law of motion

Lesson 9: Momentum

Objectives:
• Explain the relationship between an object's mass, velocity, and momentum

Lesson 10: Freefall and Circular Motion (two-day lesson)

Objectives:
• Investigate and analyze how an object's motion can be affected by free fall and centripetal force

Lesson 11: Forces and Motion Unit Review (two-day lesson)

Objectives:
• Explain how motion is described
• Analyze how outside forces affect an object's motion, position, and shape
• Demonstrate Newton's third law of motion
• Analyze how an object's mass affects its acceleration, and how a force exerted on the object affects its acceleration

Lesson 12: Forces and Motion Unit Test
SCIENCE 7 A
Welcome to Science 7, an innovative course based on the framework for the Next Generation Science standards (NGSS). NGSS focuses on science and engineering practices; Earth, life and physical science core ideas; and fundamental crosscutting concepts vital to relating the various fields of science and developing a scientific world view. The course provides the student opportunities to engage in inquiry-based investigations, STEM (Science Technology Engineering Mathematics) projects, and other dynamic activities. Hands-on and online activities encourage the student to make connections, collaborate, and reflect on his or her learning. Because the course is designed to meet both national and state-based standards, the sequence of content will vary by state.

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Unit 1: Introduction to Science

Science is a continuous and ongoing quest to understand the natural world through observation and experimentation. In this unit, you will be introduced to the nature of science as you engage in hands-on and virtual activities. Just like real scientists, you will outline an inquiry process and use it to guide you through an experiment. You will distinguish between the different variables in an experiment. You will also research and discuss scientific theories with your classmates and summarize ways in which science and technology have influenced society.

Objectives:
- Defend the use of the inquiry process as an effective way to study science
- Differentiate between the independent, dependent, and constant variables in an experiment
- Justify why scientific theories are modified, but seldom discarded
- Explain the nature of science, science research, and how scientific progress is made
- Specify ways science and technology have influenced society

Lesson 1: Why Science?

Objectives:
- Describe scientific skills, ways of thinking, and methods of research
- Analyze the influence of bias on scientific research

Lesson 2: Working Like a Scientist (two-day lesson)

Objectives:
- Describe scientific skills, ways of thinking, and methods of research
- Identify common tools scientists use

Lesson 3: Scientific Inquiry (two-day lesson)

Objectives:
- Defend the use of the inquiry process as an effective way to study science
- Differentiate between the independent, dependent, and constant variables in an experiment
- Identify several ways to stay safe in the science lab

Lesson 4: Scientific Literacy (two-day lesson)

Objectives:
- Explain ways science has influenced society
- Describe characteristics of scientific literacy and identify its importance to the average citizen
- Evaluate claims for and against a real-world, science-related controversy

Lesson 5: Products of Science: Theories and Laws (two-day lesson)

Objectives:
• Explain that science must be a continuous and ongoing progression of study because scientific ideas and theories are subject to change and improve through continued research
• Justify why scientific theories are modified, but seldom discarded

**Lesson 6: Products of Science: Technology (two-day lesson)**

Objectives:
• Explain ways science and technology have influenced society

**Lesson 7: Introduction to Science Unit Review (two-day lesson)**

Objectives:
• Defend the use of the inquiry process as an effective way to study science
• Differentiate between the independent, dependent, and constant variables in an experiment
• Justify why scientific theories are modified, but seldom discarded
• Explain the nature of science, science research, and how scientific progress is made
• Specify ways science and technology have influenced society

**Lesson 8: Introduction to Science Unit Test**

**Unit 2: Earth’s Interior Systems**

In this unit, you will explore, describe, discuss, and investigate the properties of different types of rocks and minerals as you engage in hands-on and virtual activities. You will also have the opportunity to discover and explore pieces of evidence that support the plate tectonics and continental drift theory. In this unit, you will learn about how scientists develop and use data to predict and monitor earthquakes, tsunamis, and volcanic eruptions.

Objectives:
• Describe the properties of minerals
• Explain the processes involved in the rock cycle. Investigate and describe the three major types of rocks: igneous, sedimentary, and metamorphic
• Explain and describe the theory of plate tectonics and drifting continents
• Describe how earthquakes and volcanic eruptions occur
• Analyze and interpret data sets that set the location and frequency of natural hazards like earthquakes and tsunamis

**Lesson 1: Properties of Minerals**

Objectives:
• Define and identify several types of minerals
• Describe the chemical and physical properties of minerals
• Explain how minerals form and where mineral resources are located

**Lesson 2: Classifying Rocks**

Objectives:
• Explain the characteristics that are used to identify rocks
• Describe and classify the three major groups of rocks: igneous rock, sedimentary rock, and metamorphic rock

**Lesson 3: The Rock Cycle**

Objectives:
• Explain the rock cycle

**Lesson 4: Drifting Continents**

Objectives:
• Explain the theory of continental drift
• Explain the evidence of continental drift

**Lesson 5: Sea-Floor Spreading**

Objectives:
Lesson 6: Plate Tectonics (two-day lesson)

Objectives:
- Explain the theory of plate tectonics
- Describe the three types of plate boundaries

Lesson 7: Earth’s Cycling of Matter (two-day lesson)

Objectives:
- Explain how heat is transferred
- Explain how cycling of matter occurs in the mantle
- Describe convection currents in the mantle

Lesson 8: Earthquakes (two-day lesson)

Objectives:
- Explain the causes of earthquakes
- Explain how scientists locate the epicenter of an earthquake
- Describe how seismic waves travel through Earth and explain how seismographs work

Lesson 9: Volcanoes

Objectives:
- Describe how volcanoes form
- Explain what happens when a volcano erupts
- Describe the stages of volcanic activity

Lesson 10: Earth’s Interior Systems Unit Review (two-day lesson)

Objectives:
- Describe the properties of minerals
- Investigate and describe the three major types of rocks: igneous, sedimentary, and metamorphic
- Explain the processes involved in the rock cycle
- Explain and describe the theory of plate tectonics and drifting continents
- Describe how earthquakes and volcanic eruptions occur

Lesson 11: Earth’s Interior Systems Unit Test

Objectives:
- Describe the properties of minerals
- Investigate and describe the three major types of rocks: igneous, sedimentary and metamorphic
- Explain the processes involved in the rock cycle
- Explain and describe the theory of plate tectonics and drifting continents
- Describe how earthquakes and volcanic eruptions occur

Unit 3: Earth’s Surface Systems

In this unit, you will explore, describe, discuss, and investigate the processes of weathering, erosion, and deposition as you engage in hands-on and virtual activities. You will also have the opportunity to discover Earth’s surface land and water features. In this unit, you will also learn about soil formation and conservation.

Objectives:
- Describe Earth’s surface land and water features
- Investigate the causes of weathering
- Explain the processes of erosion and deposition and how they shape Earth’s surface
- Explain and describe the agents of erosion: gravity, water, wind, and glaciers
- Describe how soil is formed and conserved

Lesson 1: Exploring Earth’s Surface

Objectives:
Lesson 2: Water, Water Everywhere

Objectives:
- Explain what a river system is
- Describe ponds and lakes
- Identify characteristics of the ocean and ocean water
- Identify the features and main sections of the ocean floor

Lesson 3: Weathering (two-day lesson)

Objectives:
- Explain how weathering and erosion affect Earth’s surface
- Explain what causes mechanical and chemical weathering
- Describe the factors that determine how fast weathering occurs

Lesson 4: Erosion and Deposition: Mass Movement (two-day lesson)

Objectives:
- Describe the processes that wear down and build up Earth’s surface
- Identify the different types of mass movement
- Identify the causes of the different types of mass movement

Lesson 5: Water Erosion (two-day lesson)

Objectives:
- Explain how moving water can cause erosion
- Describe some of the land features that are formed by water erosion and deposition

Lesson 6: Glacial Erosion (two-day lesson)

Objectives:
- Describe the two kinds of glaciers and explain how glaciers form and move
- Explain how glaciers cause erosion and deposition

Lesson 7: Wind Erosion (two-day lesson)

Objectives:
- Explain how wind causes erosion and deposition

Lesson 8: Soil Formation

Objectives:
- Describe the composition of soil
- Identify the roles of plants and animals in soil formation

Lesson 9: Soil Conservation

Objectives:
- Explain how soil can lose its value to humans and other organisms
- Identify and describe methods of soil conservation

Lesson 10: Earth’s Surface Systems Unit Review (two-day lesson)

Objectives:
- Describe Earth’s surface land and water features
- Investigate the causes of weathering
- Explain the processes of erosion and deposition and how they shape Earth’s surface
- Explain and describe the agents of erosion: gravity, water, wind, and glaciers
Lesson 11: Earth’s Surface Systems Unit Test

Objectives:
- Describe Earth’s surface land and water features
- Investigate the causes of weathering
- Explain the processes of erosion and deposition and how they shape Earth’s surface
- Explain and describe the agents of erosion: gravity, water, wind, and glaciers
- Describe how soil is formed and conserved

Unit 4: Chemical Reactions

Have you ever seen a chemical reaction before? In this unit, you will perform and observe chemical reactions, and compare the physical and chemical properties of reactants and products. You will also design your own experiment to show that reactants and products are different substances. Finally, you will create a digital poster to model the events of the carbon cycle.

Objectives:
- Relate the principle of conservation of mass to chemical reactions
- Verify that substances at the end of a reaction have different properties than the original substances
- Explain why some reactions release energy while some others absorb energy
- Construct models to show the movement of matter and energy through the carbon cycle

Lesson 1: Atomic Models

Objectives:
- Compare the different atomic models leading to the modern atomic model
- Analyze the modern model of an atom
- Explain why the atomic model and theory is subject to change

Lesson 2: The Periodic Table

Objectives:
- Describe the arrangement of elements on the periodic table
- Explain the information provided by the periodic table
- Distinguish among metals, nonmetals, and metalloids
- Use the periodic table to predict properties of elements

Lesson 3: Chemical Bonds (two-day lesson)

Objectives:
- Analyze and explain the types of chemical bonds that occur when atoms combine to form new substances

Lesson 4: Observing Chemical Changes (two-day lesson)

Objectives:
- Verify that substances at the end of a reaction have different properties than the original substances

Lesson 5: Endothermic and Exothermic Reactions (three-day lesson)

Objectives:
- Explain why some reactions release energy while some others absorb energy
- Explain that photosynthesis is a chemical reaction that absorbs energy
- Differentiate between endothermic and exothermic reactions

Lesson 6: Describing Chemical Reactions

Objectives:
- Relate the principle of conservation of mass to chemical reactions

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Differentiate among synthesis, decomposition, and replacement reactions
Formulate and interpret balanced chemical equations
Explain that the reactants and products of a chemical reaction are chemically different because atoms have regrouped

Lesson 7: Making and Breaking Bonds: The Carbon Cycle (two-day lesson)

Objectives:
- Construct models to show the movement of matter and energy through the carbon cycle
- Explain that the process of photosynthesis is one way carbon is cycled through the ecosystem
- Explain that both the burning of fuel and cellular respiration in plants and animals are ways carbon is cycled through the ecosystem

Lesson 8: Chemical Reactions Unit Review (two-day lesson)

Objectives:
- Relate the principle of conservation of mass to chemical reactions
- Verify that substances at the end of a reaction have different properties than the original substances
- Explain why some reactions release energy, while some others absorb energy
- Construct models to show the movement of matter and energy through the carbon cycle

Lesson 9: Chemical Reactions Unit Test
SCIENCE 7 B
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Unit 1: Energy

Energy is everywhere and in everything. In this unit, you will learn about energy by engaging in hands-on and virtual activities. You will investigate kinetic and potential energy. You will search your own house for examples of thermal energy transfer. You will figure out ways to increase or decrease friction in everyday machines, and even come up with plans for your own device that can operate without producing lots of waste heat.

Objectives:
• Examine and explain the relationship between the kinetic energy of an object and its mass and speed
• Estimate the amount of potential energy an object has based on its position within an electrical, gravitational, or magnetic field
• Use and/or construct models that illustrate energy transfer by convection, conduction, and radiation
• Determine possible ways to maximize or minimize friction and energy transfer in everyday machines
• Devise plans for a device that can operate without generating large amounts of heat and justify your choice of materials

Lesson 1: Work and Machines (two-day lesson)

Objectives:
• Calculate and describe work
• Describe ways machines make work easier
• Explain that by reducing friction, machines can be made more efficient, thus requiring less energy input to perform a task
• Calculate and describe the mechanical advantage and efficiency of machines

Lesson 2: An Overview of Energy (two-day lesson)

Objectives:
• Characterize all motion energy as kinetic energy
• Characterize all stored energy as potential energy
• Differentiate among the different forms of energy

Lesson 3: Kinetic Energy

Objectives:
• Calculate kinetic energy
• Analyze and explain the relationship between the kinetic energy of an object and its mass and speed

Lesson 4: Gravitational Potential Energy

Objectives:
• Analyze the potential energy of an object based on its position within a gravitational field

Lesson 5: Electric and Magnetic Potential Energy (two-day lesson)
Objectives:
• Analyze the potential energy of an object based on its position within an electrical or magnetic field

Lesson 6: Energy Transformation and Conservation

Objectives:
• Identify and describe energy transformations
• Explain that energy transformations occur whenever the motion energy of an object changes
• Identify ways to increase or decrease friction and energy transfer

Lesson 7: Temperature, Thermal Energy, and Heat (two-day lesson)

Objectives:
• Explain that temperature is a measure of the average kinetic energy of particles of matter, and that the types, states, and amounts of matter present determine the temperature and the total energy of a system.

Lesson 8: Transfer of Heat

Objectives:
• Analyze models of energy transfer by convection, conduction, and radiation
• Compare and contrast conduction, convection, and radiation

Lesson 9: Conductors and Insulators

Objectives:
• Compare and contrast different materials’ ability to conduct heat
• Differentiate between conductors and insulators

Lesson 10: Virtual Lab: Reducing Heat Transfer (two-day lesson)

Objectives:
• Identify appropriate methods and materials for reducing heat transfer

Lesson 11: Energy Unit Review (two-day lesson)

Objectives:
• Examine and explain the relationship between the kinetic energy of an object and its mass and speed
• Estimate the amount of potential energy an object has based on its position within an electrical, gravitational, or magnetic field
• Use and/or construct models that illustrate energy transfer by convection, conduction, and radiation
• Determine possible ways to maximize or minimize friction and energy transfer in everyday machines
• Devise plans for a device that can operate without generating large amounts of heat and justify your choice of materials

Lesson 12: Energy Unit Test

Unit 2: Waves and Electromagnetic Radiation

What do spear fishing, wireless devices, and rainbows have in common? In this unit, you will investigate and describe waves and electromagnetic radiation. You will investigate the causes of different colors and brightness of light, and determine if sound waves travel in space. You will also investigate the properties of light that make things like blue blocker sunglasses and wireless devices work.

Objectives:
• Investigate and interpret the relationship between properties of waves and various wave behaviors and characteristics
• Summarize various ways modern technology uses waves to enhance communication

Lesson 1: Wave Properties (two-day lesson)
• Describe the basic properties of waves
• Compare and contrast transverse and longitudinal waves
• Differentiate among absorption, reflection, and refraction

Lesson 2: Sound (two-day lesson)

Objectives:
• Use and/or construct models to investigate and illustrate the conditions necessary for sound waves to travel
• Explain how sound waves are reflected, absorbed, or transmitted
• Identify factors that affect the speed of sound
• Correlate the properties of sound (i.e., loudness, pitch) with wave properties
• Describe how animals and people use sound

Lesson 3: Electromagnetic Radiation

Objectives:
• Use the wave model of light to investigate and interpret various characteristics of light
• Describe the waves of the electromagnetic spectrum
• Compare and contrast the waves of the electromagnetic spectrum

Lesson 4: Enhancing Communication with Waves

Objectives:
• Generalize ways modern technology uses waves to enhance communication
• Explain how radio waves transmit information
• Explain how cell phones work
• Explain how satellites work

Lesson 5: Properties of Visible Light (two-day lesson)

Objectives:
• Use the wave model of light to investigate and interpret various characteristics of light
• Differentiate among transparent, translucent, and opaque objects
• Differentiate between the two kinds of reflection
• Explain why light rays refract when they enter a medium at an angle

Lesson 6: Investigating Refraction of Light (two-day lesson)

Objectives:
• Use data to support the hypothesis that light travels in straight lines except at the point it enters a new medium

Lesson 7: Radioactivity (two-day lesson)

Objectives:
• Summarize the accidental discovery of radioactivity in uranium minerals
• Summarize the accomplishments and contributions to science of Marie and Pierre Curie
• Explain that the discovery of radioactivity as a source of Earth's heat energy made it possible to understand how Earth can be several billion years old and still have a hot interior

Lesson 8: Waves and Electromagnetic Radiation Unit Review (two-day lesson)

Objectives:
• Investigate and interpret the relationship between properties of waves and various wave behaviors and characteristics
• Summarize various ways modern technology uses waves to enhance communication

Lesson 9: Waves and Electromagnetic Radiation Unit Test
Unit 3: Introduction to Genetics

In this unit, you will explore, describe, discuss, and investigate the passing of biological information from one generation to the next as you engage in hands-on and virtual activities. You will compare mitosis and meiosis, discuss the roles of environment and genetics in the development and growth of organisms, and assess the ways in which varying genes can affect characteristics.

Objectives:
- Use models to explain variation and duplication in offspring in sexual and asexual reproduction
- Relate specific inherited traits to mutations of genes
- Explain how mutations and changes to the formation of proteins affect traits
- Illustrate how probability can be used to predict traits

Lesson 1: Introduction to Heredity (two-day lesson)

Objectives:
- Understand the concept of heredity
- Recognize that some traits are inherited and some are not
- Compare and contrast the roles of genetic factors and local conditions in determining physical traits

Lesson 2: Inheritance and Traits

Objectives:
- Explain the location of genes, and that chromosome pairs contain two variations of many different genes
- Contrast dominant and recessive traits

Lesson 3: Probability and Heredity

Objectives:
- Analyze the basic laws of genetics using Punnett squares
- Use a Punnett square to determine the probability of an offspring inheriting a particular genotype and phenotype

Lesson 4: Patterns of Inheritance

Objectives:
- Contrast dominant, recessive, codominant, and incomplete dominant traits and give examples of each

Lesson 5: Asexual and Sexual Reproduction

Objectives:
- Explain that an individual organism does not live forever and must reproduce in order to pass on its traits
- Categorize reproduction as sexual or asexual
- Analyze asexual reproduction and determine why the spread of detrimental characteristics is limited, allowing genetic continuity
- Summarize the process of sexual reproduction and explain how variations of inherited traits can increase or decrease an organism’s chance of survival

Lesson 6: Mitosis and Meiosis (two-day lesson)

Objectives:
- Illustrate mitosis and understand the functions of cell division
- Illustrate meiosis and explain what happens during gamete production and fertilization
- Summarize the differences between mitosis and meiosis

Lesson 7: DNA and Proteins

Objectives:
- Explain what makes up the genetic code
- Summarize how genes determine the traits of an individual
- Understand how genes code for proteins
Lesson 8: Mutations

Objectives:
- Explain how mutations in DNA affect protein synthesis
- Relate specific inherited traits to mutations of genes
- Describe how mutations occur

Lesson 9: Introduction to Genetics Unit Review (two-day lesson)

Objectives:
- Use models to explain variation and duplication in offspring in sexual and asexual reproduction
- Relate specific inherited traits to mutations of genes
- Explain how mutations and changes to the formation of proteins affect traits
- Illustrate how probability can be used to predict traits

Lesson 10: Introduction to Genetics Unit Test

Unit 4: Natural Selection and Adaptation

In this unit, you will explore, describe, discuss and investigate the role of natural selection in the adaptation of organisms to their environment, as you engage in hands-on and virtual activities. You will explore the effects of natural selection on a population, discover how two populations of the same species can develop into separate species, and evaluate the evidence of evolution.

Objectives:
- Explain why fossils of some extinct organisms have been found while others have not
- Describe how scientists use the fossil record, comparative anatomy, and similarities in development between species to understand the history of life on Earth
- Summarize the way in which natural selection can change the characteristics of a population
- Explain how two populations of the same species can develop into separate species

Lesson 1: Darwin's Theory

Objectives:
- Summarize Darwin's theory of evolution by natural selection

Lesson 2: Natural Selection (three-day lesson)

Objectives:
- Summarize the way in which environmental pressures can change the characteristics of a population
- Explain how genetic variation between individuals in a population can lead to evolution
- Compare and contrast natural and artificial selection

Lesson 3: Evidence of Evolution

Objectives:
- Explain how homologous structures, similarities in early development, and conservation in DNA structure led scientists to infer an evolutionary relationship between living and once-living organisms

Lesson 4: Fossil Record (two-day lesson)

Objectives:
- Explain why fossils of some extinct organisms have been found while others have not
- Discuss how scientists use the fossil record, comparative anatomy, and similarities in development between species to understand the history of life on Earth

Lesson 5: How Do New Species Form?
Lesson 6: How Fast Does Evolution Occur?
Objectives:
- Explain the difference between the patterns of gradualism and punctuated equilibrium

Lesson 7: Evolution and Biological Classification
Objectives:
- Summarize how scientists classify organisms with similar evolutionary histories

Lesson 8: Natural Selection and Adaptation Unit Review (two-day lesson)
Objectives:
- Explain why fossils of some extinct organisms have been found while others have not
- Describe how scientists use the fossil record, comparative anatomy, and similarities in development between species to understand the history of life on Earth
- Summarize the way in which natural selection can change the characteristics of a population
- Explain how two populations of the same species can develop into separate species

Lesson 9: Natural Selection and Adaptation Unit Test
Objectives:
- Summarize Darwin's theory of evolution by natural selection
- Describe how scientists use the fossil record, comparative anatomy, and similarities in development between species to understand the history of life on Earth
- Summarize the way in which natural selection can change the characteristics of a population
- Explain how two populations of the same species can develop into separate species
- Summarize how scientists classify organisms with similar evolutionary histories
SCIENCE 8 A
**Science 8 A**

Welcome to Science 8, an innovative course based on the framework for the Next Generation Science standards (NGSS). NGSS focuses on science and engineering practices; Earth, life and physical science core ideas; and fundamental crosscutting concepts vital to relating the various fields of science and developing a scientific world view. The course provides the student opportunities to engage in inquiry-based investigations, STEM (Science Technology Engineering Mathematics) projects, and other dynamic activities. Hands-on and online activities encourage the student to make connections, collaborate, and reflect on his or her learning. Because the course is designed to meet both national and state-based standards, the sequence of content will vary by state.

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**Unit 1: Introduction to Science**

In this unit, you will explore the branches of science and the scientists that study them as you engage in hands-on and virtual activities. You will discover how scientists think and work, investigate the tools they use and how to use them safely, and evaluate how science and technology influence everyday life.

Objectives:
- Define science and give examples of what different scientists study
- Evaluate, design, and explain the use of models and experimental design in science
- Summarize the differences between a scientific theory and scientific law
- Analyze the tools scientists use and when and how to use them appropriately
- Explain how science and technology influences everyday life

**Lesson 1: Science Is All Around You (two-day lesson)**

Objectives:
- Define science and give examples of what different scientists study
- Recognize possible benefits of studying science

**Lesson 2: Science Skills**

Objectives:
- Analyze the roles of observation, inference, prediction, classification, and evaluation in science

**Lesson 3: Think Like a Scientist**

Objectives:
- Analyze the roles of curiosity, honesty, and creativity in science
- Explain why scientists need to be open-minded, skeptical, ethical, and aware of bias
- Understand the difference between deductive reasoning and inductive reasoning

**Lesson 4: Work Like a Scientist (two-day lesson)**

Objectives:
- Describe the scientific method
- Evaluate, design, and explain the use of experimental design in science
- Summarize the differences between a scientific theory and a scientific law

**Lesson 5: Scientific Literacy**

Objectives:
- Develop an argument that explains why it is important to study science
- Analyze scientific claims

**Lesson 6: The Tools of Science**

Objectives:
• Identify the standard units of measurement for and the tools used to measure length, mass, volume, temperature, and time
• Explain why scientists use standard units of measurements
• Distinguish between the concepts of mass and weight
• Identify the parts of a microscope and how they work

Lesson 7: Mathematics in Science

Objectives:
• Distinguish between the concepts of accuracy and precision
• Determine the number of significant figures in a measurement and in a calculation
• Explain how and why scientists use line graphs

Lesson 8: Models and Systems

Objectives:
• Analyze the reasons scientists use models to help them understand the natural world
• Understand the roles of input, process, output, and feedback in a system
• Compare models of natural systems to the system itself

Lesson 9: Laboratory Safety (two-day lesson)

Objectives:
• Analyze the tools scientists use and when and how to use them appropriately
• Explain the safety precautions necessary for carrying out scientific experiments and field testing
• Understand standard safety symbols
• Describe what should be done if an accident occurs

Lesson 10: Technology and You

Objectives:
• Distinguish between science and technology
• Explain how science and technology influences everyday life
• Describe the goal of technology and how it progresses
• Analyze a technological system and identify the input, process, output, and feedback within the system

Lesson 11: Study Skills

Objectives:
• Identify and implement effective study skills

Lesson 12: Introduction to Science Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit

Lesson 13: Introduction to Science Unit Test

Unit 2: Our Solar System

In this unit, you will study the solar system and how it is made up of the sun, the planets, their moons, and a variety of smaller objects, including asteroids, comets, and meteors. You will learn about the sun’s surface features as well as its interior and its atmosphere and how the sun fits into the universe. You will study both the inner planets and outer planets and will be able to describe the unique characteristics that distinguish each planet. You will learn about the similarities and differences between small bodies in the solar system, including asteroids, meteors, and comets, and you will study the life cycle of stars and learn how stars are classified. By the end of the unit, you will be able to identify major types of galaxies and explain the big bang theory. You will also be able to describe pieces of evidence that indicate that the universe is expanding, and you will be able to discuss how space technology has benefitted people.

Objectives:
• Identify objects within the solar system and explain how the solar system was formed
• Describe the physical characteristics of the sun, including its interior and its atmosphere, and identify each of the inner and outer planets and describe the characteristics that distinguish them from one another
• Explain how scientists classify small bodies in the solar system, including asteroids, meteors, and comets
• Explain the big bang theory and reasons why scientists believe the universe is expanding
• Describe the benefits that space technology has provided for modern society

Lesson 1: Introducing the Solar System

Objectives:
• Identify the objects that make up the solar system
• Explain how the solar system formed

Lesson 2: The Sun (two-day lesson)

Objectives:
• Identify the layers of the sun’s interior and atmosphere
• Describe the features that form on or above the sun’s surface

Lesson 3: The Inner Planets (two-day lesson)

Objectives:
• Describe the characteristics that the inner planets have in common
• Identify the main characteristics that distinguish each of the inner planets

Lesson 4: The Outer Planets (two-day lesson)

Objectives:
• Describe the characteristics that the gas giants have in common
• Identify the characteristics that distinguish each outer planet

Lesson 5: Smaller Solar System Objects

Objectives:
• Explain how scientists classify small bodies in the solar system
• Explain the similarities and differences between asteroids, meteors, and comets

Lesson 6: Stars and Constellations

Objectives:
• Explain how stars are classified
• Summarize the life cycle of stars
• Define and give examples of constellations

Lesson 7: Star Systems and Galaxies

Objectives:
• Define a star system
• Identify the major types of galaxies

Lesson 8: The Expanding Universe (two-day lesson)

Objectives:
• Explain the big bang theory
• Describe pieces of evidence that show that the universe is expanding

Lesson 9: Using Space Science on Earth (two-day lesson)

Objectives:
• Describe the conditions in space, including near vacuum, extreme temperatures, and microgravity
• Identify the benefits that space technology has provided for modern society
• Describe some uses of satellites orbiting Earth
Lesson 10: Our Solar System Unit Review (two-day lesson)

Objectives:
- Identify objects within the solar system and explain how the solar system formed
- Describe the physical characteristics of the sun, including its interior and its atmosphere, and identify each of the inner and outer planets and describe the characteristics that distinguish them from one another
- Explain how scientists classify small bodies in the solar system, including asteroids, meteors, and comets
- Explain the big bang theory and reasons why scientists believe the universe is expanding
- Describe the benefits that space technology has provided for modern society

Lesson 11: Our Solar System Unit Test

Unit 3: Earth’s History

In this unit, you will learn about Earth’s history through actual evidence of Earth’s past—fossils. You will learn how fossils are formed and how there are different types of fossils, depending on environmental conditions that were present during burial and fossilization. You will learn what it would be like to be a paleontologist and how geologists can use the rock record to determine the relative age of rock layers and radioactive dating to determine the absolute age of rock samples that contain radioactive elements. You will study the geologic time scale and construct your own timeline to get a better idea of how Earth’s timeline highlights important events throughout history. Finally, you will learn about major time periods in Earth’s history, including Precambrian time and the Paleozoic, Mesozoic, and Cenozoic eras, and some of the significant events that occurred during those time periods. By the end of the unit, you will be able to explain how some species survived changes throughout Earth’s history, while others have become extinct.

Objectives:
- Explain how different types of fossils form and describe what fossils tell about organisms of the past
- Describe how geologists determine the relative age of rock layers using the law of superposition and explain how scientists can determine the absolute age of rocks using radioactive dating
- Explain the importance of the geologic time scale and how it can be used to learn about Earth’s history
- Identify significant events during Precambrian time and the Paleozoic, Mesozoic, and Cenozoic eras and explain the factors that can cause the extinction of organisms
- Explain how some species have survived, while others have become extinct, and explain the carbon cycle and its importance to nutrient cycling on Earth

Lesson 1: Fossils

Objectives:
- Explain how fossils are formed
- Identify the different kinds of fossils
- Describe what fossils tell about organisms and environments of the past

Lesson 2: Relative Age of Rocks

Objectives:
- Describe how geologists determine the relative age of rocks
- Explain how unconformities and folding can alter the order of rock layers

Lesson 3: Radioactive Dating (two-day lesson)

Objectives:
- Explain what happens during radioactive decay
- Define and explain half-life
- Describe what scientists can learn from radioactive dating

Lesson 4: Geologic Time Scale

Objectives:
Lesson 5: Early Earth

Objectives:
- Explain how Earth developed during Precambrian time

Lesson 6: Eras of Earth’s History (two-day lesson)

Objectives:
- Describe the major events in the Paleozoic era
- Describe the major events in the Mesozoic era
- Describe the major events in the Cenozoic era

Lesson 7: Extinction (two-day lesson)

Objectives:
- Explain the factors that cause extinction of organisms
- Identify organisms that are extinct

Lesson 8: Life Prevails (two-day lesson)

Objectives:
- Explain how some species survived and flourished through time when others have become extinct
- Explain the carbon cycle

Lesson 9: Earth’s History Unit Review (two-day lesson)

Objectives:
- Explain how different types of fossils form and describe what fossils tell about organisms of the past
- Describe how geologists determine the relative age of rock layers using the law of superposition and explain how scientists can determine the absolute age of rocks using radioactive dating
- Explain the importance of the geologic time scale and how it can be used to learn about Earth’s history
- Identify significant events during Precambrian time and the Paleozoic, Mesozoic, and Cenozoic eras and explain the factors that can cause the extinction of organisms
- Explain how some species have survived, while others have become extinct, and explain the carbon cycle and its importance to nutrient cycling on Earth

Lesson 10: Earth’s History Unit Test

Unit 4: Human Impact on the Environment

In this unit, you will appraise the significant impact humans and their activities are having on Earth's systems and resources. You will design solutions to reduce human impacts that deplete resources. You will evaluate renewable energy resources and explore the positive impact these technologies can have. You will evaluate ways in which technology monitoring assists in creating a well-informed and environmentally responsible public.

Objectives:
- Describe renewable and nonrenewable resources
- Explain how water, air, and land pollution impact the environment
- Explain ways of conserving natural resources

Lesson 1: Exploring Environmental Issues

Objectives:
- Identify general categories of environmental issues
- Describe local and global environmental issues
- Identify sources and types of pollution
- Describe how decision-makers balance opposing needs and concerns

Lesson 2: Renewable and Nonrenewable Resources
Objectives:
- Explain what natural resources are and distinguish between renewable and nonrenewable resources
- Explain why natural resources are important

Lesson 3: Human Population Growth

Objectives:
- Describe how the human population has grown over time
- Explain how population growth affects the environment
- Identify factors that affect the rate of human population growth

Lesson 4: Air Pollution

Objectives:
- Identify the causes of indoor and outdoor air pollution
- Explain the importance of the ozone layer and how it has been damaged
- Explain ways of reducing air pollution

Lesson 5: Water Pollution (two-day lesson)

Objectives:
- Explain why freshwater is a limited resource
- Identify the major sources of water pollution
- Describe how water pollution can be reduced

Lesson 6: Waste Disposal and Recycling (two-day lesson)

Objectives:
- Describe methods of solid waste disposal
- Differentiate biodegradable and nonbiodegradable wastes
- Explain the advantages and disadvantages of each solid waste disposal method
- Explain recycling as a method of solid waste disposal

Lesson 7: The True Cost of Fossil Fuels

Objectives:
- Explain why fossil fuels are considered nonrenewable resources
- Explain how fossil fuels are formed
- Describe the three major fossil fuels

Lesson 8: Achieving Stability: Alternative Sources of Energy (two-day lesson)

Objectives:
- Identify and describe alternative sources of energy
- Describe the advantages and disadvantages of using alternative forms of energy
- Explain how a nuclear power plant produces electricity

Lesson 9: Preserving Biodiversity

Objectives:
- Explain the value of biodiversity
- Identify the factors that affect biodiversity
- Identify ways that human activity threatens and protects biodiversity

Lesson 10: Human Impact on the Environment Unit Review (two-day lesson)

Objectives:
- Describe renewable and nonrenewable resources
- Explain how water, air, and land pollution impact the environment
- Explain ways of conserving natural resources

Lesson 11: Human Impact on the Environment Unit Test
• Describe renewable and nonrenewable resources
• Explain how water, air, and land pollution impact the environment
• Explain ways of conserving natural resources
SCIENCE 8 B
Science 8 B

Welcome to Science 8, an innovative course based on the framework for the Next Generation Science standards (NGSS). NGSS focuses on science and engineering practices; Earth, life and physical science core ideas; and fundamental crosscutting concepts vital to relating the various fields of science and developing a scientific world view. The course provides the student opportunities to engage in inquiry-based investigations, STEM (Science Technology Engineering Mathematics) projects, and other dynamic activities. Hands-on and online activities encourage the student to make connections, collaborate, and reflect on his or her learning. Because the course is designed to meet both national and state-based standards, the sequence of content will vary by state.

Tip: Links to Pearson® student interactive SCIENCE online textbooks have been added to the Backpack in the Web Links section. These textbooks are intended as supplemental resources as they are organized differently than this course.

Unit 1: Matter and Energy in Organisms and Ecosystems

In this unit, you will explore, describe, discuss, and investigate the cycling of matter and energy through an ecosystem as you engage in hands-on and virtual activities. You will explore the roles of producers, consumers, and decomposers in an ecosystem, model their interactions, and discover how changes in an ecosystem affect the organisms that live there.

Objectives:
• Describe photosynthesis and conduct investigations to determine how changing conditions affect the process
• Use models to illustrate and explain the transfer of matter and energy through an ecosystem
• Summarize the roles of producers, consumers, and decomposers in the transfer of matter and energy through an ecosystem
• Conduct investigations and use models to illustrate and explain how matter is cycled through the living and nonliving parts of an ecosystem
• Plan and conduct investigations into how changes in an ecosystem can affect organisms in the ecosystem

Lesson 1: Living Things and Their Environment

Objectives:
• Distinguish between abiotic and biotic factors in an ecosystem and give examples of each
• Describe the levels of organization in an ecosystem
• Draw conclusions about and explain the importance of abiotic factors in an ecosystem
• Analyze the resources in the environment that living things need to survive

Lesson 2: Land Biomes (two-day lesson)

Objectives:
• Identify major land biomes by their characteristics
• Discuss the relationship between climate and biomes
• Compare and contrast the six land biomes

Lesson 3: Aquatic Ecosystems

Objectives:
• Explain why sunlight is important to all aquatic ecosystems
• Distinguish between freshwater and marine ecosystems and provide examples of organisms that live in each
• Identify factors that distinguish aquatic biomes
• Describe aquatic biomes

Lesson 4: Biogeography (two-day lesson)

Objectives:
• Summarize the ways in which species are dispersed
• Define an exotic species and explain how they are dispersed
• Distinguish between exotic species and invasive species
• Explain the concept of adaptation
• Explain the role of continental drift in the distribution of species

Lesson 5: Producers (two-day lesson)

Objectives:
• Explain the role of producers in ecosystems
• Describe photosynthesis
• Conduct investigations to determine how changing conditions affect photosynthesis
• Explain how photosynthesis results in a change from light energy to chemical energy
• Explain the role of photosynthesis in plant survival

Lesson 6: Consumers and Decomposers (two-day lesson)

Objectives:
• Describe the relationship of producers, consumers, and decomposers within an ecosystem
• Distinguish between carnivores, herbivores, and omnivores and give examples of foods they might eat
• Summarize the differences between an autotroph and a heterotroph
• Describe the interaction between predator and prey

Lesson 7: Food Webs and Pyramids (two-day lesson)

Objectives:
• Use models to illustrate and explain the transfer of matter and energy through an ecosystem
• Summarize the roles of producers, consumers, and decomposers in the transfer of matter and energy through an ecosystem
• Use models to illustrate and explain how matter and energy is cycled through the living and nonliving parts of an ecosystem
• Evaluate the consequences of changes to a food web

Lesson 8: The Water Cycle (two-day lesson)

Objectives:
• Use models to illustrate and explain the cycling of water through an ecosystem
• Explain why water is a limited resource

Lesson 9: The Carbon and Oxygen Cycles

Objectives:
• Summarize the carbon-oxygen cycle
• Discuss global warming

Lesson 10: The Nitrogen Cycle

Objectives:
• Summarize the nitrogen cycle
• Explain the role of decomposers in the nitrogen cycle
• Explain the role of soil bacteria in the nitrogen cycle

Lesson 11: Changes in an Ecosystem

Objectives:
• Discuss how changes in an ecosystem can affect organisms in the ecosystem
• Plan and conduct investigations into how changes in an ecosystem can affect organisms in the ecosystem

Lesson 12: Matter and Energy Unit Review (two-day lesson)

Objectives:
• Describe photosynthesis and conduct investigations to determine how changing conditions affect the process
Lesson 13: Matter and Energy Unit Test

Objectives:
- Use models to illustrate and explain the transfer of matter and energy through an ecosystem
- Draw conclusions about and explain the importance of abiotic factors in an ecosystem
- Distinguish between abiotic and biotic factors in an ecosystem and give examples of each
- Compare and contrast the six land biomes
- Identify factors that distinguish aquatic biomes
- Summarize the ways in which species are dispersed
- Explain the concept of adaptation

Unit 2: The Human Body

In this unit, you will explore, describe, discuss, and investigate structures and functions of the human body as you engage in hands-on and virtual activities. You will analyze how the major systems in your body work individually and how all of the systems work together to maintain overall function of the body. You will also explore the nature of disease and infection, and how scientists’ ideas about disease have changed over time. Finally, you will discuss the impact antibiotic resistant bacteria can have on human health.

Objectives:
- Identify the components and functions of the major systems of the human body
- Explain how the major body systems interact and work together
- Analyze the causes of infection and disease
- Explore how humans can fight and prevent disease
- Synthesize the information learned about the human body to promote good health

Lesson 1: Human Body Organization

Objectives:
- Describe the levels of organization in the human body
- Identify the major organ systems of the human body and describe their functions
- Analyze how the major organ systems work together

Lesson 2: Holding It All Together: Muscles and Bones

Objectives:
- Explain how the circulatory system relies on the skeletal system
- Describe how the skeletal system and the muscular system work together to allow movement
- Distinguish between different types of muscles found in the body
- Describe how muscle structure is related to its function
- Identify the structure of bones
- Explain ways to keep bones healthy

Lesson 3: Holding It All Together: Joints and Skin

Objectives:
- Describe the role of joints in the body
- Distinguish between different types of joints
- Describe the structure of the skin and the role it serves for the body
- Identify ways to keep skin healthy
- Describe how a joint functions like a lever

Lesson 4: Food and Energy (two-day lesson)
Objectives:
- Sequence the organs and structures through which food passes as it moves through the digestive system
- Explain why the body needs food
- Explain how the structure of the digestive system assists in its function
- Explain how the digestive system and circulatory system work together to provide the body's cells with the nutrients they need

Lesson 5: The Body's Transport System

Objectives:
- Summarize the structures of the circulatory system
- Summarize the function of the circulatory system
- Explain how the structure of the circulatory system assists in its function
- Describe the characteristics of blood
- Describe how blood moves through the body

Lesson 6: Getting Oxygen

Objectives:
- Summarize the structures of the respiratory system
- Summarize the function of the respiratory system
- Explain how the structure of the respiratory system assists in its function
- Explain how the respiratory system and circulatory system work together to deliver oxygen and remove waste from body cells
- Describe the processes of breathing and gas exchange

Lesson 7: Removing Waste

Objectives:
- Explain why excretion is necessary for the body to maintain homeostasis
- Summarize the structures of the excretory system
- Summarize the function of the excretory system

Lesson 8: What Causes Disease? (three-day lesson)

Objectives:
- Explain the nature of disease and infection
- Compare and contrast types of infectious agents and how they spread
- Identify the positive and negative ways viruses, bacteria, and fungi affect living things
- Communicate and give examples of how the idea of what causes disease has evolved over time based on evidence

Lesson 9: Fighting Disease (two-day lesson)

Objectives:
- Describe the immune response and how vaccines build immunity
- Summarize the structures and function of the immune system
- Use models to show how the immune system fights disease
- Discuss how antibiotic resistance occurs and its impact on human health

Lesson 10: Processing Information

Objectives:
- Summarize the structures of the nervous system
- Summarize the function of the nervous system
- Describe how the senses work
- Distinguish between reflex and voluntary movement and describe how nerve impulses move during each
- Explain how impulses move between neurons

Lesson 11: Hormones and Homeostasis (two-day lesson)

Objectives:
- Summarize the structure and function of the endocrine system
- Explain that hormone levels are controlled by negative feedback
- Describe how diabetes occurs and how it affects the body
• Summarize how body systems interact to keep a stable internal environment
• Describe the growth and development of humans from infancy to old age

**Lesson 12: The Human Body Unit Review (two-day lesson)**

Objectives:
• Identify the components and functions of the major systems of the human body
• Explain how the major body systems interact and work together
• Analyze the causes of infection and disease
• Explore how humans can fight and prevent disease
• Synthesize the information learned about the human body to promote good health

**Lesson 13: The Human Body Unit Test**

Objectives:
• Analyze the structures found in body systems to explain how they carry out their functions
• Analyze the individual roles of the major systems of the human body
• Summarize how the major systems of the human body work together to maintain homeostasis
• Explain the nature of disease and infection
• Compare and contrast types of infectious agents
• Communicate and give examples of how the idea of what causes disease has evolved over time based on evidence
• Explain how the major systems of the human body work together to carry out functions needed by the body

**Unit 3: Interaction of Forces**

In this unit, you will continue your study of forces by investigating ways non-contact forces, like gravity and magnetism, interact with and affect matter. You will use your knowledge of forces to predict how objects should move in space and on Earth. You will discover ways to strengthen and weaken electric and magnetic forces. You will also design your own experiment to investigate ways to move objects without touching them. Finally, you will create a model to demonstrate the effect of gravitational attractions on the movements of objects in space.

Objectives:
• Devise ways to change the strength of electric and magnetic forces
• Construct and refine a model to illustrate how gravitational interactions among objects in space affect their motion
• Describe the components of an electric circuit
• Predict the stability of a physical system

**Lesson 1: Electric Force**

Objectives:
• Investigate the properties of electric forces

**Lesson 2: Magnetism**

Objectives:
• Investigate the properties of magnetic forces

**Lesson 3: Electromagnetism (two-day lesson)**

Objectives:
• Understand the relationship between electric currents and magnetic fields
• Analyze how motors and generators use electromagnetic forces

**Lesson 4: Electric Circuits (two-day lesson)**

Objectives:
• Understand the components of a simple electric circuit
• Explain voltage, current, and resistance in simple electric circuits
• Contrast parallel and series circuits

Lesson 5: Gravity (two-day lesson)

Objectives:
• Analyze how gravity is affected by mass or distance

Lesson 6: Stability of Physical Systems

Objectives:
• Predict the stability of a physical system

Lesson 7: Interaction of Forces Unit Review (two-day lesson)

Objectives:
• Devise ways to change the strength of electric and magnetic forces
• Construct and refine a model to illustrate how gravitational interactions among objects in space affect their motion
• Understand the components of an electric circuit
• Predict the stability of a physical system

Lesson 8: Interaction of Forces Unit Test

Unit 4: Energy and the Environment

There are many sources of energy available on Earth, and humans use a lot of it! In this unit, you will investigate different sources and types of energy, the pros and cons of their use, and ways to conserve them. You will also research and critique the economic and environmental effects of using different energy sources, and discuss your findings with your classmates.

Objectives:
• Categorize various types of energy resources
• Determine how various nonrenewable resources are obtained and used
• Determine how various renewable resources are obtained and used
• Specify ways to sustain renewable resources and to reduce, reuse, and recycle
• Determine the environmental and economic effects of the use of various energy sources

Lesson 1: Natural Resources (two-day lesson)

Objectives:
• Categorize various types of energy resources

Lesson 2: Nonrenewable Resources

Objectives:
• Determine how various nonrenewable resources are obtained and used
• Determine the environmental and economic effects of the use of nonrenewable energy sources

Lesson 3: Renewable Resources – Sources and Uses

Objectives:
• Determine how various renewable resources are obtained and used
• Determine the environmental and economic effects of the use of renewable energy sources

Lesson 4: Renewable Resources – Conservation and Protection

Objectives:
• Specify ways to sustain renewable resources and to reduce, reuse, and recycle

Lesson 5: Alternative Energy Sources (two-day lesson)

Objectives:
• Determine how various inexhaustible resources are obtained and used
• Determine the environmental and economic effects of the use of alternative energy sources
Lesson 6: Pollution and Solutions (two-day lesson)

Objectives:
- Determine the environmental and economic effects of the use of various energy sources

Lesson 7: Real World Connections (two-day lesson)

Objectives:
- Determine the environmental and economic effects of various energy sources

Lesson 8: Energy and the Environment Unit Review (two-day lesson)

Objectives:
- Categorize various types of energy resources
- Determine how various nonrenewable resources are obtained and used
- Determine how various renewable resources are obtained and used
- Specify ways to sustain renewable resources and to reduce, reuse, and recycle
- Determine the environmental and economic effects of the use various energy sources

Lesson 9: Energy and the Environment Unit Test
BIOLOGY A
Biology A

In this course, the student will study the science of life. The student will explore the idea that living things are extremely diverse in form, yet are unified by certain core characteristics that they all share. In learning about these core characteristics, the student will be able to critically evaluate data and information related to biological problems, connect many ideas to the student's own life, and see the world in a new way.

Unit 1: The Nature of Life

In this unit, you will begin by considering the fundamental nature of science and the role it plays in the study of biology. You will lay a foundation for the remainder of the course by exploring the unifying factors that are common to all living things.

Objectives:
- Explain the role of science in the study of life
- Describe the chemical basis of life

Lesson 1: The Nature of Science

Objectives:
- Identify three goals of science
- Describe the steps used in scientific methodology
- Apply the scientific method to example cases

Lesson 2: Science and Society (two-day lesson)

Objectives:
- Describe the factors that encourage scientific investigation
- Describe how science and society are interconnected
- Analyze ethical consideration of scientific research

Lesson 3: The Science of Life

Objectives:
- List the characteristics of living things
- Explain how life can be studied at different levels
- Evaluate characteristics of things to determine whether they are living or non-living

Lesson 4: The Building Blocks of Life (two-day lesson)

Objectives:
- Identify the three subatomic particles found in atoms
- Analyze the similarities and differences between the isotopes of an element
- Explain how compounds are different from their component elements
- Describe the two main types of chemical bonds

Lesson 5: The Importance of Water (two-day lesson)

Objectives:
- Discuss the unique properties of water
- Evaluate the impact of water's properties on living things
- Explain what acidic solutions and basic solutions are

Lesson 6: Organic Compounds (two-day lesson)

Objectives:
Lesson 7: The Chemistry of Life

Objectives:
- Describe the basis of life in terms of chemistry
- Analyze developments that moved understanding of the chemical basis of life forward
- Explain the concept of metabolism

Lesson 8: Chemical Reactions and Life (two-day lesson)

Objectives:
- Explain how chemical reactions affect chemical bonds
- Describe the two ways that energy may be involved in a chemical reaction
- Analyze how living things use chemical reactions to sustain the living state

Lesson 9: Essential Enzymes

Objectives:
- Describe the effect of an enzyme on a chemical reaction
- Analyze enzyme-catalyzed chemical reactions
- Explain why enzymes are important to living things

Lesson 10: Keystone Exam Review

Objectives:
- Review concepts presented in the unit
- Practice analysis and writing skills
- Examine test taking strategies

Lesson 11: The Nature of Life Unit Review

Objectives:
- Review the concepts presented in the unit

Lesson 12: The Nature of Life Unit Test

Objectives:
- Complete a unit assessment

Unit 2: Cells

In this unit, you will focus on the cell as the smallest unit of life. You will investigate cell size, structure, and organization, and link these characteristics to the many functions that the cell performs. As a unit portfolio assessment, you will carry out a lab exercise to study the effect of cell size on diffusion of materials into the cell.

Objectives:
- Describe the cell as the fundamental unit of life and explain how cell structure supports the various life functions it must carry out
- Explain how photosynthetic organisms convert radiant energy from the sun to chemical energy
- Explain how organisms use chemical energy to drive basic life functions
- Describe the cell cycle and cell division and explain their importance to an organism

Lesson 1: The Basic Unit of Life (two-day lesson)

Objectives:
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Lesson 2: Cell Structure (two-day lesson)

Objectives:
- Describe the structure and function of the cell nucleus
- Describe the role of vacuoles, lysosomes, and the cytoskeleton
- Identify the role of ribosomes, endoplasmic reticulum, and Golgi apparatus in making proteins
- Describe the function of chloroplasts and mitochondria in the cell

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Lesson 3: Material Transport

Objectives:
- Explain the process of diffusion as it relates to transport across a cell membrane
- Describe two types of material transport across the cell membrane
- Analyze effects of osmosis on cells

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Lesson 4: Lab: The Effect of Cell Size on Material Transport (two-day lesson)

Objectives:
- Explain why cell size is limited

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Lesson 5: Cells and Homeostasis (two-day lesson)

Objectives:
- Explain how unicellular organisms maintain homeostasis
- Explain how multicellular organisms maintain homeostasis

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Lesson 6: Energy and Life

Objectives:
- Describe the role of ATP in cellular activities
- Explain where plants get the energy they need to produce food

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Lesson 7: Overview of Photosynthesis

Objectives:
- Describe the role of light in photosynthesis
- Explain the requirement for chlorophyll in photosynthesis
- Describe the two sequential processes for photosynthesis
- Identify the reactants and products of photosynthesis

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Lesson 8: The Process of Photosynthesis (two-day lesson)

Objectives:
- Explain what happens during the light-dependent reactions
- Explain what happens during the light-independent reactions

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Lesson 9: Overview of Cellular Respiration

Objectives:
- Make comparisons between cellular respiration and photosynthesis
- Analyze the energy content of food
- Explain the function of cellular respiration in the cell

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Lesson 10: The Process of Cellular Respiration (two-day lesson)
Objectives:
- Explain what happens during glycolysis
- Explain what happens during the Krebs cycle
- Explain how high-energy electrons are used by the electron transport chain

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Lesson 11: Fermentation

Objectives:
- Compare aerobic and anaerobic respiration
- Explain conditions leading to anaerobic respiration
- Distinguish between the two types of fermentation
- Analyze everyday examples of fermentation

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Lesson 12: Cells Overview—Mid-unit Review

Objectives:
- Review basic cell biology
- Review Key Words

Lesson 13: Cell Growth, Division, and Reproduction (two-day lesson)

Objectives:
- Explain why cells divide
- Analyze the requirement for passing intact genetic information from parent to offspring during reproduction or from cell to cell during cell division

Lesson 14: Cell Division (two-day lesson)

Objectives:
- Describe processes occurring at each stage of mitosis
- Describe what happens to chromosomes during cell division

Lesson 15: The Cell Cycle (two-day lesson)

Objectives:
- Analyze the structure of a eukaryotic chromosome
- Analyze the stages of the cell cycle
- Compare and contrast the amount of time a cell spends at the different stages of the cell cycle

Lesson 16: Regulating the Cell Cycle (two-day lesson)

Objectives:
- Describe cell cycle regulation
- Analyze ways that the cell cycle can be manipulated
- Evaluate the benefits and problems associated with human intervention in cell cycle regulation

Lesson 17: Cell Differentiation

Objectives:
- Analyze the process of differentiation
- Explain why stem cells are important to a multicellular organism

Lesson 18: Keystone Exam Review

Objectives:
- Review concepts presented in the unit
- Practice analysis and writing skills
- Examine test taking strategies

Lesson 19: Cells Unit Review
Objectives:
• Review the concepts presented in the unit

Lesson 20: Cells Unit Test

Objectives:
• Complete a unit assessment

Unit 3: Genetics

In this unit, you will learn how biological information is encoded and passed from an organism to its offspring. You will begin with the work of Gregor Mendel to understand the basis for the patterns of inheritance that can be observed any time the features of parents and their young are compared. You will move on to develop an understanding of the basic unit of biological information, the gene, as a sequence of DNA. As part of this unit, you will complete a portfolio assessment in which you will make and present a model to describe the process of meiosis.

Objectives:
• Explain how traits of organisms are passed from one generation to the next using the principles of Mendel and the concept of meiosis
• Explain the chemical basis of biological information
• Describe the flow of biological information from gene to protein
• Describe ways that the study of genetics is being applied to understand human biology and to understand and manipulate the traits of other organisms

Lesson 1: Mendel's Experiments (two-day lesson)

Objectives:
• Describe the experiments and conclusions of Gregor Mendel
• Analyze results of genetic crosses
• Describe the process of segregation of alleles

Lesson 2: Applying Mendel's Principles I (two-day lesson)

Objectives:
• Predict the outcomes of genetic crosses using Punnett squares
• Explain what is meant by independent assortment

Lesson 3: Applying Mendel's Principles II (two-day lesson)

Objectives:
• Explain codominance, incomplete dominance, multiple alleles, and polygenic traits
• Evaluate situations involving codominance, incomplete dominance, multiple alleles, and polygenic traits
• Explain how environmental factors can influence phenotype

Lesson 4: Meiosis (two-day lesson)

Objectives:
• Explain the process of meiosis

Lesson 5: The Molecular Nature of Genes

Objectives:
• Explain the role of DNA in heredity
• Evaluate results of experiments that test the nature of a cell’s genetic material

Lesson 6: Chromosomes and DNA (two-day lesson)

Objectives:
• Analyze the steps leading to the development of the double helix model of DNA
• Analyze the structure of DNA

Lesson 7: DNA Replication (two-day lesson)

Objectives:
Lesson 8: DNA Sequencing and Analysis (two-day lesson)

Objectives:
• Describe ways that DNA is analyzed
• Evaluate results of lab tests on DNA to draw conclusions

Lesson 9: Molecular Biology of the Cell (two-day lesson)

Objectives:
• Describe the central dogma
• Explain the different roles of DNA and proteins in forming an individual’s identity

Lesson 10: The Process of Transcription (two-day lesson)

Objectives:
• Contrast RNA and DNA
• Explain the process of transcription

Lesson 11: The Process of Translation (two-day lesson)

Objectives:
• Explain how the genetic code is read
• Summarize the process of translation

Lesson 12: The Effects of Mutations (two-day lesson)

Objectives:
• Describe different types of mutations and identify examples
• Analyze mutations and their effects on proteins and on organisms

Lesson 13: Regulation of Gene Expression in Prokaryotes

Objectives:
• Describe how prokaryotes regulate gene expression
• Analyze regulation by an operon

Lesson 14: Regulation of Gene Expression in Eukaryotes

Objectives:
• Explain how genes are regulated in eukaryotes
• Explain the purpose of gene regulation in cell differentiation
• Describe how gene regulation controls development in multicellular organisms


Objectives:
• Review cellular processes related to storage and expression of genetic information
• Review key words

Lesson 16: The Human Genome (two-day lesson)
Objectives:
- Identify chromosomes in a karyotype
- Explain the inheritance of traits in humans
- Explain how pedigrees can provide information about human inheritance
- Analyze human pedigrees

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Lesson 17: Genetic Engineering (two-day lesson)

Objectives:
- Explain selective breeding
- Evaluate the effects produced by creating recombinant DNA
- Explain the usefulness of transgenic organisms to humans
- Explain the processes involved in genetic engineering research

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Lesson 18: Applications and Ethics of Genetic Engineering

Objectives:
- Describe some applications of genetic engineering
- Identify some of the pros and cons of genetically modified organisms and products made from them
- Argue an opinion about whether genetically modified organisms should be used to solve human problems

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Lesson 19: Keystone Exam Review

Objectives:
- Review concepts presented in the unit
- Practice analysis and writing skills
- Examine test taking strategies

Lesson 20: Genetics Unit Review

Objectives:
- Review the concepts presented in the unit

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Lesson 21: Genetics Unit Test

Objectives:
- Complete a unit assessment

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Unit 4: Semester Review and Final

Lesson 1: Biology Semester A Exam Review (two-day lesson)

Objectives:
- Review the concepts presented throughout the course

Lesson 2: Keystone Review Quiz

Objectives:
- Review concepts presented in Semester A
- Practice analysis and writing skills

Lesson 3: Biology Semester A Exam

Objectives:
- Complete a semester assessment
BIOLOGY B
Biology B

In this course, the student will study the science of life. The student will explore the idea that living things are extremely diverse in form, yet are unified by certain core characteristics that they all share. In learning about these core characteristics, the student will be able to critically evaluate data and information related to biological problems, connect many ideas to the student's own life, and see the world in a new way.

Unit 1: Evolution

In this unit, you will consider the observations Charles Darwin made that led him to propose his theory of evolution. You will explore the range of diversity of living organisms as well as the methods biologists use to classify them, which are rooted in evolutionary theory. As a portfolio assessment, you will develop a dichotomous key for identifying a group of organisms in your local area.

Objectives:
- Explain the concept of natural selection
- Explain how species evolve
- Describe the classification of organisms by biologists
- Explain why fossils have been important in establishing current thinking about the history of life on Earth

Lesson 1: Darwin's Voyage of Discovery

Objectives:
- State Charles Darwin's contribution to science
- Describe the three patterns of biodiversity noted by Darwin

Lesson 2: Ideas That Shaped Darwin's Thinking

Objectives:
- Describe the theories that laid the foundation for Darwin's theory of natural selection
- Explain the process of artificial selection

Lesson 3: Darwin's Theory of Natural Selection

Objectives:
- Describe the conditions under which natural selection occurs
- Explain the theory of natural selection
- Explain the principle of common descent

Lesson 4: Evidence of Evolution

Objectives:
- Describe the conditions under which natural selection occurs
- Explain the principle of common descent

Lesson 5: Genes and Variation

Objectives:
- Define evolution in genetic terms
- Identify the main sources of genetic variation in a population
- State what determines the number of phenotypes for a trait

Lesson 6: Genetic Change in Populations: 1

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Lesson 7: Genetic Change in Populations: 2

Objectives:
- Explain how different factors affect genetic equilibrium

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Lesson 8: Speciation (two-day lesson)

Objectives:
- Identify the types of isolation that can lead to the formation of new species
- Describe the current hypothesis about Galapagos finch speciation

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Lesson 9: Molecular Evolution: 1

Objectives:
- Explain how molecular clocks are used
- Explain how new genes evolve

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Lesson 10: Molecular Evolution: 2

Objectives:
- Explain how molecular clocks are used
- Explain how new genes evolve

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Lesson 11: Evolution Review

Objectives:
- Explain Darwin’s theory of natural selection
- Describe how populations change over time
- Identify adaptations and explain how and why they develop in an organism

Lesson 12: Finding Order in Diversity: 1

Objectives:
- Describe the goals of binomial nomenclature and systematics
- Identify the taxa in the classification system devised by Linnaeus

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Lesson 13: Finding Order in Diversity: 2

Objectives:
- Describe the goals of binomial nomenclature and systematics
- Identify the taxa in the classification system devised by Linnaeus

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Lesson 14: Modern Evolutionary Classification

Objectives:
- Explain the difference between evolutionary classification and Linnaean classification
- Describe how to make and interpret a cladogram
- Explain the use of DNA sequences in classification
Lesson 15: Building the Tree of Life

Objectives:
• Name the six kingdoms of life as they are currently identified
• Explain what the tree of life represents

Lesson 16: The Fossil Record

Objectives:
• Explain what information fossils can reveal about ancient life

Lesson 17: Patterns and Processes of Evolution

Objectives:
• Distinguish between background extinction and mass extinction
• Explain what other organisms are related to dinosaurs and the supporting evidence
• Describe two models of speciation
• Identify examples of adaptive radiation, convergent evolution, and coevolution

Lesson 18: The Mysteries of Life’s Origins

Objectives:
• Explain what the Miller-Urey experiment demonstrated
• Describe self-replication, mutation, and selection as operating principles needed for life to arise
• Explain the cause for the rise in oxygen in Earth’s atmosphere

Lesson 19: Keystone Exam Review

Objectives:
• Review concepts presented in the unit
• Practice analysis and writing skills
• Examine test-taking strategies

Lesson 20: Evolution Unit Review

Objectives:
• Review concepts presented in unit

Lesson 21: Evolution Unit Test

Unit 2: Ecology

In this unit, you will study the environmental factors, both living and non-living, that affect the survival of organisms. You will learn how matter and energy move in and between ecosystems, creating networks and links that connect all of the organisms on Earth. You will complete a unit portfolio assessment in which you measure the biodiversity of organisms in a simulated ecosystem.

Objectives:
• Explain how the survival of organisms is affected by interactions between the organisms and the living and non-living things in their environment
• Analyze the factors that shape ecosystems
• Explain the factors that influence the sizes of populations
• Evaluate the effects of humans on ecosystems

Lesson 1: Introduction to Ecology

Objectives:
• Describe ecology
• Apply the hierarchy of levels in the biosphere to specific cases
Lesson 2: Energy Roles of Organisms

Objectives:
• Differentiate between producers and consumers
• Compare and contrast types of consumers
• Compare and contrast types of producers
• Evaluate energy roles of organisms

Lesson 3: Movement of Energy in Ecosystems

Objectives:
• Analyze the movement of energy through the biosphere
• Explain the concept of an ecological pyramid

Lesson 4: Movement of Matter in Ecosystems

Objectives:
• Analyze the factors that affect the cycling of matter
• Describe the cycling of matter in both living and nonliving parts of an ecosystem
• Explain the importance of nutrients to living systems
• Compare the flow of energy and the cycling of matter in the biosphere

Lesson 5: Interactions Between Organisms in an Ecosystem (two-day lesson)

Objectives:
• Analyze competition’s role in determining the composition of a community
• Analyze the various types of relationships that organisms can have with one another

Lesson 6: Population Changes Due to Organism Interactions (two-day lesson)

Objectives:
• Explain why a population might change in a cyclic fashion
• Predict changes in an ecosystem as a result of changing populations
• Describe a healthy ecosystem

Lesson 7: Ecosystem Changes Over Time (two-day lesson)

Objectives:
• Evaluate ecosystem recovery following a disturbance
• Compare and contrast primary and secondary succession
• Compare succession following natural and human disturbances

Lesson 8: Ecology Overview—Review of Lessons 1–7

Objectives:
• Review principles of ecology
• Review Key Words

Lesson 9: Climate

Objectives:
• Explain the difference between weather and climate
• Analyze factors that affect climate
• Explain the greenhouse effect

Lesson 10: Biomes

Objectives:
• Describe the major land biomes on Earth
• Compare the major land biomes on Earth
• Evaluate the factors that give rise to different types of terrestrial biomes
Lesson 11: Aquatic Ecosystems

Objectives:
- Analyze the factors that affect aquatic ecosystems
- Analyze the importance of estuaries
- Describe and compare the distinct ocean zones that make up marine ecosystems

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Lesson 12: Biodiversity (two-day lesson)

Objectives:
- Define biodiversity
- Describe factors that change biodiversity

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Lesson 13: Population Growth (two-day lesson)

Objectives:
- Analyze factors that affect population growth
- Describe exponential growth
- Describe logistic growth
- Evaluate reasons for population changes

Lesson 14: Human Impact on Ecosystems (two-day lesson)

Objectives:
- Analyze how human activities affect soil and land
- Analyze how human activities affect water resources
- Analyze how human activities affect air resources
- Define biodiversity
- Explain why biodiversity is important
- Identify current threats to biodiversity

Lesson 15: The Challenge of Protecting Earth

Objectives:
- Describe human population growth
- Describe effects human activities have on the biosphere
- Evaluate how humans can reduce their impact on ecosystems

Lesson 16: Keystone Exam Review

Objectives:
- Review concepts presented in the unit
- Practice analysis and writing skills
- Examine test-taking strategies

Lesson 17: Ecology Unit Review

Objectives:
- Review the concepts presented in the unit

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Lesson 18: Ecology Unit Test

Objectives:
- Complete a unit assessment

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Unit 3: From Microorganisms to Plants

In this unit, you will explore the structure, function, reproduction, and evolution of viruses and the organisms in the kingdoms of Eubacteria, Archaeabacteria, "Protista," Fungi, and Plantae. You will discover the ways in which plants respond to their environments and why
they do so. You will research and prepare a presentation about an organism that causes human disease as a portfolio assessment.

Objectives:
- Differentiate between viruses and prokaryotes, and explain how their structures and life cycles allow each to be successful
- Describe the distinguishing features of protists and fungi and explain their ecological roles
- Identify the four main groups of plants and describe the adaptations of each that have allowed them to be successful in terrestrial habitats
- Describe the structures and functions of cells, tissues, and organs in seed plants
- Explain the effects of environmental factors on plant reproduction, growth, and development

Lesson 1: Viruses

Objectives:
- Explain how viruses reproduce
- Explain how viruses cause infection

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Lesson 2: Prokaryotes

Objectives:
- Describe how the two groups of prokaryotes differ
- Describe how prokaryotes vary in structure and function
- Explain the role of bacteria in the living world

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Lesson 3: Viruses, Bacteria, and Disease

Objectives:
- Explain how bacteria cause disease
- Explain how viruses cause disease

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Lesson 4: Protists: 1

Objectives:
- Explain what a protist is
- Describe how protists are related to other eukaryotes
- Describe the various methods of protist locomotion
- Describe how protists reproduce

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Lesson 5: Protists: 2

Objectives:
- Describe the ecological significance of photosynthetic protists
- Describe how heterotrophic protists obtain food

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Lesson 6: Fungi

Objectives:
- Explain how fungi obtain nutrients
- Explain how fungi reproduce
- Describe the ecological roles of fungi

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Lesson 7: An Overview of Plants
Lesson 8: Seedless Plants

Objectives:
- Identify the characteristics of green algae
- Describe the adaptations of bryophytes
- Explain the importance of vascular tissue

Lesson 9: Seed Plants

Objectives:
- Describe the reproductive adaptations of seed plants
- Identify the reproductive structures of gymnosperms

Lesson 10: Flowering Plants

Objectives:
- Identify the reproductive structures of angiosperms
- Identify the functions of various structures in a flower
- Explain how fertilization differs between angiosperms and other plants

Lesson 11: Viruses to Plants Review

Objectives:
- Identify the defining characteristics of viruses, prokaryotes, protists, and fungi
- Compare methods of reproduction, locomotion, and means of obtaining basic needs among the viruses, prokaryotes, protists, and fungi
- Describe how adaptations made by vascular plants allowed more complex development
- Compare and contrast the structure, methods of reproduction, and adaptations developed in the five major plant groups

Lesson 12: Specialized Tissue in Plants

Objectives:
- Explain the primary functions of the main tissue systems of seed plants
- Describe the different functions of roots
- Describe the functions of plant stems
- Describe how leaves’ characteristics enable plants to carry out photosynthesis
- Describe the process of transpiration

Lesson 13: Gas Exchange and Vascular Transport

Objectives:
- Explain how gas exchange in leaves relates to homeostasis
- Explain the process of water movement in a plant
- Describe how the products of photosynthesis are transported through a plant
Lesson 14: Seed Germination and Plant Growth

Objectives:
• List the factors that influence the dormancy and germination of seeds

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Lesson 15: Plant Hormones

Objectives:
• Describe the effects of hormones on plant growth and development

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Lesson 16: Tropisms and Photoperiods

Objectives:
• Explain how plant growth response to light, gravity, and touch
• Describe how plants respond to photoperiods and changes in season

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Lesson 17: From Microorganisms to Plants Unit Review

Objectives:
• Review concepts presented in unit

Lesson 18: From Microorganisms to Plants Unit Test

Unit 4: Animals

In this unit, you will explore the evolution and diversity of the animal kingdom. You will discover how scientists classify animals, how their body systems work together to maintain homeostasis, and how animal behavior affects their survival. You will research and prepare a presentation explaining how animal body structures are related to their function and as a portfolio assignment, and you will explore some trends in animal evolution.

Objectives:
• Describe the traits that distinguish animals from other organisms
• Explain the diversity of invertebrates, chordates, and primates using the theory of evolution
• Describe the structures and body systems of animals that allow them to maintain homeostasis
• Describe the structures and body systems of animals that allow them to sense and respond to their environment
• Describe animal behavior

Lesson 1: Defining Animals

Objectives:
• List the characteristics that all animals share
• Differentiate between invertebrates and chordates
• List and discuss the essential functions that animals perform in order to survive

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Lesson 2: Animal Body Plans

Objectives:
• Discuss some trends in animal evolution
• Explain the differences among the animal phyla

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Lesson 3: Invertebrate Evolution and Diversity

Objectives:
• Explain what fossil evidence indicates about the timing of the evolution of the first animals
• Interpret the cladogram of invertebrates

Lesson 4: Chordate Evolution and Diversity

Objectives:
• Describe the most ancient chordates
• Interpret the cladogram of chordates

Lesson 5: Primate Evolution and Diversity

Objectives:
• Identify the characteristics that all primates share
• Describe the major evolutionary groups of primates
• Describe the adaptations that enabled later hominine species to walk upright

Lesson 6: Animal Diversity and Evolution Review

Objectives:
• Define and identify a chordate
• Define and identify an invertebrate
• Define and identify a primate
• Describe adaptations animals have that make them successful
• Describe the diversity of form in the animal kingdom

Lesson 7: Animal Structure and Function

Objectives:
• Describe structure/function relationships in biology
• Describe the need for organisms to balance intake of nutrients and water with release of metabolic wastes

Lesson 8: Feeding and Digestion

Objectives:
• Describe the different ways animals get food
• Explain how digestion occurs in different animals
• Describe how mouthparts are adapted for an animal's diet

Lesson 9: Respiration

Objectives:
• Describe the characteristics of respiratory structures that all animals share
• Explain how aquatic animals breathe
• Identify the respiratory structures that enable land animals to breathe

Lesson 10: Circulation

Objectives:
• Compare open and closed circulatory systems
• Compare patterns of circulation in vertebrates
Lesson 11: Excretion

Objectives:
• Describe the methods animals use to manage nitrogenous wastes
• Explain how aquatic animals eliminate wastes
• Explain how land animals eliminate wastes

Lesson 12: Response and Information Processing

Objectives:
• Describe how animals respond to stimuli
• Summarize the trends in evolution of nervous systems in animals
• Describe some of the sensory systems in animals.

Lesson 13: Reproduction

Objectives:
• Compare asexual and sexual reproduction
• Contrast internal and external fertilization
• Explain how terrestrial vertebrates are adapted to reproduction on land

Lesson 14: Lab Investigator: Virtual Dissection Tool

Objectives:
• Develop a comparative understanding of systems in different specimens
• Create a lab project using the virtual dissection tool

Lesson 15: Homeostasis

Objectives:
• Explain how homeostasis is maintained in animals
• Describe the importance of body temperature control in animals

Lesson 16: Animal Behavior

Objectives:
• Identify the significance of behavior in the evolution of a species
• Explain what an innate behavior is
• Describe the major types of learning

Lesson 17: Behavior and Environment

Objectives:
• Explain how environmental changes affect animal behavior
• Explain how social behaviors increase the evolutionary fitness of a species
• Summarize the ways that animals communicate

Lesson 18: Animals Review

Objectives:
• Review the concepts presented in this unit

Lesson 19: Animals Unit Test
**Unit 5: Biology Semester B Review and Test**

**Lesson 1: Biology Semester B Review**

Objectives:
- Review the concepts presented in Biology Semester B

**Lesson 2: Biology Semester B Test**
CHEMISTRY A
Chemistry A

In this first of two courses that comprise Chemistry, the student will explore the fundamental concepts of chemistry as he engages in reading and responding exercises, hands-on and virtual lab experiments, and interdisciplinary problem-solving activities. The student will build on prior knowledge to learn how to model the structure of an atom, analyze the periodic table of elements, represent and interpret reactions between atoms and molecules, and perform calculations to solve problems in chemistry. The course provides many opportunities for the student to apply these concepts to real-world situations.

Unit 1: Introduction to Chemistry

Chemistry can help explain much of what is happening in the world around you. This branch of science is vast because it deals with the study of matter, which is present just about everywhere. In this introductory unit, you will study the different areas of chemistry, identify how chemistry affects various industries, review the steps of the scientific method, and examine the measurement system that all scientists use. You will also learn how to measure, convert, and calculate accurately to solve chemistry problems. You will repeatedly apply these math concepts throughout the course.

Objectives:

- Identify the traditional areas of study in chemistry
- Describe how chemistry research affects industries
- Describe the scientific method
- Perform accurate metric conversions
- Calculate the density of a material from experimental data

Lesson 1: Chemistry

Objectives:

- Identify five traditional areas of study in chemistry
- Relate pure chemistry to applied chemistry
- Identify reasons to study chemistry

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Lesson 2: Chemistry Far and Wide

Objectives:

- Identify some areas affected by chemistry research
- Describe some examples of research in chemistry
- Distinguish between macroscopic and microscopic views

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Lesson 3: Thinking Like a Scientist

Objectives:

- Describe how Lavoisier transformed chemistry
- Identify three steps in the scientific method
- Explain why collaboration and communication are important in science

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Lesson 4: Problem Solving in Chemistry

Objectives:

- Identify two general steps in problem solving
- Describe three steps for solving numeric problems
- Describe two steps for solving conceptual problems

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Lesson 5: Measurements and Their Uncertainty

Objectives:

- Convert measurements to scientific notation
- Distinguish among accuracy, precision, and error of measurement
Lesson 6: The International System of Units (SI) (two-day lesson)

Objectives:
• List SI units of measurement and common SI prefixes
• Distinguish between the mass and weight of an object
• Convert between the Celsius and kelvin temperature scales

Lesson 7: Conversion Problems (two-day lesson)

Objectives:
• Construct conversion factors from equivalent measurements
• Apply the technique of dimensional analysis to a variety of conversion problems
• Solve problems by breaking the solution into steps
• Convert complex units, using dimensional analysis

Lesson 8: Density

Objectives:
• Calculate the density of material from experimental data
• Describe how density varies with temperature

Lesson 9: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in this unit.

Lesson 10: Unit Test

Unit 2: An Overview of Matter and Change

Chemistry is the study of matter and the changes it undergoes. In this unit you will begin to examine the basic types of matter and the factors that may alter it. You will learn how to classify matter, review the chemical naming system of elements, describe the physical and chemical properties of different substances, and analyze chemical and physical changes of matter. You will further explore some of these concepts later in the course.

Objectives:
• Describe physical and chemical properties and changes
• Define element, compound, and mixture
• Compare different types of substances
• Identify signs that indicate a chemical change has occurred

Lesson 1: Properties of Matter

Objectives:
• Identify properties of matter as extensive or intensive
• Define physical property and list several common properties of substances
• Differentiate among three states of matter
• Describe a physical change

Lesson 2: Mixtures
Objectives:
• Categorize a sample of matter as a substance or a mixture
• Distinguish between homogeneous and heterogeneous samples of matter
• Describe two ways that components of mixtures can be separated

Lesson 3: Chromatography Lab (two-day lesson)

Objectives:
• Use paper chromatography to separate a mixture
• Calculate ratios to analyze compounds in a mixture

Lesson 4: Elements and Compounds

Objectives:
• Explain the difference between an element and a compound
• Distinguish between a substance and a mixture
• Identify the chemical symbols of elements, and name elements, given their symbols

Lesson 5: Lab Investigator: Chemical Reactions

Objectives:
• Use the Lab Investigator: Chemical Reactions Tool to build and balance chemical equations

Lesson 6: Chemical Reactions

Objectives:
• Describe what happens during a chemical change
• Identify four possible clues that a chemical change has taken place
• Apply the law of conservation of mass to chemical reactions

Lesson 7: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in this unit

Lesson 8: Unit Test

Unit 3: Atoms and Elements

In order to understand the composition of matter, you need to understand the structure of an atom, the smallest particle of an element that has all the characteristics of that element. In this unit you will study the composition of atoms and elements. You will examine various historic models of the atom, learn how to write an electron configuration for an atom, compare atoms of different elements, and learn how an atom becomes an ion. In addition, you will review how elements are organized in the periodic table and analyze trends in the table.

Objectives:
• Compare historic models of the atom
• Describe the structure of an atom
• Define isotope
• Explain how elements are organized in a periodic table
• Identify information provided in the periodic table

Lesson 1: Defining the Atom
• Explain Dalton's atomic theory
• Identify the special instruments necessary to observe individual atoms

Lesson 2: Structure of the Nuclear Atom

Objectives:
• Identify three types of subatomic particles
• Describe the structure of atoms according to the Rutherford atomic model

Lesson 3: Distinguishing Between Atoms (two-day lesson)

Objectives:
• Explain what makes the elements and isotopes different from each other
• Calculate the number of neutrons in an atom
• Calculate the atomic mass of an element

Lesson 4: Models of the Atom

Objectives:
• Identify the inadequacies in the Rutherford atomic model
• Identify the new proposal in the Bohr model of the atom
• Describe the energies and positions of electrons according to the quantum mechanical model
• Describe how the shapes of orbitals related to different sub-levels differ

Lesson 5: Electron Arrangement in Atoms

Objectives:
• Describe how to write the electron configuration for an atom
• Explain why the actual electron configurations for some elements differ from those predicted by the aufbau principle

Lesson 6: Organizing the Elements

Objectives:
• Explain how elements are organized in a periodic table
• Compare early and modern periodic tables
• Identify three broad classes of elements

Lesson 7: Classifying the Elements

Objectives:
• Describe the information in a periodic table
• Classify elements based on electron configuration
• Distinguish representative elements and transition metals

Lesson 8: Periodic Trends (two-day lesson)

Objectives:
• Describe trends among the elements for atomic size
• Explain how ions form
• Describe periodic trends for first ionization energy, ionic size, and electronegativity
Lesson 9: Researching Elements in the Periodic Table (two-day lesson)  

Objectives:  
• Use the Internet to perform research  
• Use data to create graphs  
• Compare properties of different elements  
• Analyze the relationship between two periodic traits

Lesson 10: Unit Review (two-day lesson)  

Objectives:  
• Review the concepts presented in the unit.

Lesson 11: Unit Test  

Unit 4: Chemical Bonding  

Atoms and molecules constantly combine to form new substances. In this unit you will learn how different types of chemical bonding occur. You will examine how atoms become charged ions; compare ionic, metallic, and covalent bonds; model how atoms combine; describe the properties of different types of compounds; and evaluate the strength of bonds. It is important that you understand how chemical bonding occurs before you study chemical reactions.  

Objectives:  
• Describe how cations and anions form  
• Explain the octet rule  
• Compare the properties of ionic and molecular compounds  
• Demonstrate how electron dot structures represent ionic and molecular compounds  
• Evaluate the strength of ionic and covalent bonds

Lesson 1: Ions  

Objectives:  
• Determine the number of valence electrons in an atom of a representative element  
• Explain how the octet rule applies to atoms of metallic and nonmetallic elements  
• Describe how cations form  
• Explain how anions form

Lesson 2: Ionic Bonds and Ionic Compounds  

Objectives:  
• Explain the electrical charge of an ionic compound  
• Describe three properties of ionic compounds

Lesson 3: Bonding in Metals  

Objectives:  
• Model the valence electrons of metal atoms  
• Describe the arrangement of atoms in a metal  
• Explain the importance of alloys

Lesson 4: Flame Tests for Metals  

Objectives:  
• To identify metallic ions using flame test results
Lesson 5: Molecular Compounds

Objectives:
• Distinguish between the melting points and boiling points of molecular compounds and ionic compounds
• Describe the information a molecular formula provides

Lesson 6: The Nature of Covalent Bonding (two-day lesson)

Objectives:
• Describe how electrons are shared to form covalent bonds and identify exceptions to the octet rule
• Demonstrate how electron dot structures represent shared electrons
• Describe how atoms form double or triple covalent bonds
• Distinguish between a covalent bond and a coordinate covalent bond and describe how the strength of a covalent bond is related to its bond dissociation energy
• Describe how oxygen atoms are bonded in ozone

Lesson 7: Polar Bonds and Molecules (two-day lesson)

Objectives:
• Describe how electronegativity values determine the distribution of charge in a polar molecule
• Describe what happens to polar molecules when they are placed between oppositely charged metal plates
• Evaluate the strength of ionic and covalent bonds
• Identify the reason why network solids have high melting points

Lesson 8: Modeling Molecules

Objectives:
• Construct models of molecules
• Compare different types of representations of molecules
• Explain how the structural formula of a molecule can be used to help determine its bond angles

Lesson 9: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit.

Lesson 10: Unit Test

Unit 5: Chemical Formulas and Reactions

In order to understand many core chemistry concepts, you must be able represent and analyze chemical reactions. In this unit you will practice doing so as you apply rules for naming and writing chemical formulas, balance equations, compare and interpret empirical and molecular formulas, and predict the products of different types of reactions. In addition, you will learn how to convert one quantity of a substance, such as mass or volume, to another, such as moles or number of particles, and calculate percent composition of a compound.

Objectives:
• Describe and apply the rules for naming different types of compounds and formulas
• Define and apply the laws of definite proportions and multiple proportions
• Describe how to convert the mass or volume of a substance to number of particles and vice versa
• Calculate the percent compositions, empirical formulas, and molecular formulas of compounds
• Describe and analyze the major types of chemical reactions

Lesson 1: Naming Ions

Objectives:
• Identify the charges of monatomic ions by using the periodic table, and name the ions
• Define the polyatomic ion and write the names and formulas of the most common polyatomic ions
• Identify the two common endings for the names of most polyatomic ions

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Lesson 2: Naming and Writing Formulas for Ionic Compounds (two-day lesson)

Objectives:
• Apply the rules for the naming and writing formulas for binary ionic compounds
• Apply the rules for naming and writing formulas for compounds with polyatomic ions

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Lesson 3: Names and Formulas of Ionic Compounds

Objectives:
• Write the names and formulas for ionic compounds

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Lesson 4: Naming and Writing Formulas: Molecular Compounds

Objectives:
• Interpret the prefixes in the names of molecular compounds in terms of their chemical formulas
• Apply the rules for naming and writing formulas for binary molecular compounds.

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Lesson 5: Naming and Writing Formulas for Acids and Bases

Objectives:
• Apply three rules for naming acids
• Apply the rules in reverse to write formulas of acids
• Apply the rules for naming bases

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Lesson 6: The Laws Governing Formulas and Names

Objectives:
• Define the laws of definite proportions and multiple proportions
• Apply the rules for naming chemical compounds by using a flowchart

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Lesson 7: The Mole: A Measurement of Matter (two-day lesson)

Objectives:
• Describe the methods of measuring the amount of something
• Define Avogadro’s number as it relates to a mole of a substance
• Distinguish between the atomic mass of an element and its molar mass
• Describe how the mass of a mole of a compound is calculated

Appendix A.2.c Science Course Guides
Chemistry A
Lesson 8: Mole-Mass and Mole-Volume Relationships (two-day lesson)

Objectives:
• Describe how to convert the mass of a substance to the number of moles of a substance, and moles to mass
• Identify the volume of a quantity of gas at STP

Lesson 9: Percent Composition and Chemical Formulas

Objectives:
• Describe how to calculate the percent by mass of an element in a compound
• Interpret an empirical formula
• Distinguish between empirical and molecular formulas

Lesson 10: Describing Chemical Reactions

Objectives:
• Describe how to write a word equation
• Describe how to write a skeleton equation
• Describe the steps for writing a balanced chemical equation

Lesson 11: Types of Chemical Reactions (two-day lesson)

Objectives:
• Describe the five general types of reactions
• Predict the products of the five general types of reactions

Lesson 12: Classifying Reactions Lab (two-day lesson)

Objectives:
• Identify different types of reactions
• Predict the products of reactions
• Balance chemical equations
• Demonstrate safety precautions while performing experimental procedures

Lesson 13: Reactions in Aqueous Solution

Objectives:
• Describe the information found in a net ionic equation
• Predict the formation of a precipitate in a double-replacement reaction

Lesson 14: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit.

Lesson 15: Unit Test

Unit 6: Stoichiometry

In order to thoroughly understand chemical equations, you need to be able to mathematically interpret them. In this unit you will apply math concepts in order to analyze...
chemical equations in terms of moles, particles, mass, and volume. You will also learn how to calculate the maximum amount of product that reaction can produce.

Objectives:
- Describe how balanced equations apply to both chemistry and everyday life
- Explain balanced chemical equations in terms of moles, representative particles, mass, and gas volume at standard temperature and pressure
- Calculate stoichiometric quantities from balanced chemical equations
- Identify and use the limiting reagent in a reaction to calculate the maximum amount of product(s) produced and the excess reagent that remains unreacted

**Lesson 1: The Arithmetic of Equations (two-day lesson)**

Objectives:
- Explain how balanced equations apply to both chemistry and everyday life
- Interpret balanced chemical equations in terms of moles, representative particles, mass, and gas volume at STP
- Identify the quantities that are always conserved in chemical reactions

**Lesson 2: Chemical Calculations**

Objectives:
- Construct mole ratios from balanced chemical equations and apply these ratios in stoichiometric calculations
- Calculate stoichiometric quantities from balanced chemical equations using units of moles, mass, representative particles, and volumes of gases at STP

**Lesson 3: Activity: Stoichiometry (two-day lesson)**

Objectives:
- Solve problems using dimensional analysis
- Use mass to count atoms

**Lesson 4: Limiting Percent Reagent and Percent Yield**

Objectives:
- Identify and use the limiting reagent in a reaction to calculate the maximum amount of product(s) produced and the excess reagent that remains unreacted
- Calculate theoretical yield, actual yield, or percent yield given appropriate information

**Lesson 5: Unit Review (two-day lesson)**

Objectives:
- Review the concepts presented in the unit.

**Lesson 6: Unit Test**

**Unit 7: Final Review and Exam**

In this unit, you will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes and answers to questions in your Science journal before you begin to review.

Objectives:
• Identify strategies that you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, answers to lesson questions and assessments, and key vocabulary terms

Lesson 1: Chemistry A Final Review (three-day lesson)

Objectives:
• Identify strategies that you will use to prepare for your exam
• Organize your time and study materials
• Review your notes, answers to lesson questions and assessments, and key vocabulary terms

Lesson 2: Chemistry A Final Exam
CHEMISTRY B
Chemistry B

In this second of two courses that comprise Chemistry, the student will explore the fundamental concepts of chemistry as he engages in reading and responding exercises, hands-on and virtual lab experiments, and interdisciplinary problem-solving activities. Throughout the course the student will analyze the nature of solids, liquids, and gases, investigate the properties of solutions, describe and calculate the energies of different types of reactions, begin to explore electrochemistry, and continue to examine the fundamental concepts of nuclear and organic chemistry. The course provides many opportunities for the student to apply these concepts to real-world situations.

Unit 1: Solids, Liquids, and Gases

In this unit you will analyze the states of matter in terms of particles and use the kinetic theory of matter to describe the behavior of matter in each state. You will predict how temperature, volume, and the number of particles affect gas pressure, and how to quantify these effects using Boyle’s, Charles’s, and the combined gas laws. You will have the opportunity to perform a virtual lab to investigate the relationship between the pressure and volume of a gas. Finally, you will learn how solutions form and compare different types of solutions.

Objectives:
- Describe the different states of matter
- Describe phase changes in terms of energy
- Apply the gas laws
- Compare homogeneous and heterogeneous aqueous solutions

Lesson 1: The Nature of Gases

Objectives:
- Describe the assumptions of the kinetic theory as it applies to gases.
- Interpret gas pressure in terms of kinetic theory.
- Define the relationship between Kelvin temperature and average kinetic energy.

Lesson 2: The Nature of Liquids

Objectives:
- Identify factors that determine physical properties of a liquid.
- Define evaporation in terms of kinetic energy.
- Describe the equilibrium between a liquid and its vapor.
- Identify the conditions at which boiling occurs.

Lesson 3: The Nature of Solids

Objectives:
- Evaluate how the way particles are organized explains the properties of solids.
- Identify the factors that determine the shape of a crystal.
- Explain how allotropes of an element are different.

Lesson 4: Changes of State

Objectives:
- Identify the conditions necessary for sublimation.
- Describe how equilibrium conditions are represented in a phase diagram.

Lesson 5: Properties of Gases

Objectives:
Lesson 6: The Gas Laws (two-day lesson)

Objectives:
- Describe the relationships among the temperature, pressure, and volume of a gas.
- Use the combined gas law to solve problems.

Lesson 7: Ideal Gases

Objectives:
- Compute the value of an unknown using the ideal gas law.
- Compare and contrast real and ideal gases.

Lesson 8: Virtual Lab: Gas Pressure-Volume Relationship

Objectives:
- Investigate the relationship between the pressure and volume of a gas

Lesson 9: Gases: Mixtures and Movements

Objectives:
- Relate the total pressure of a mixture of gases to the partial pressures of the component gases.
- Explain how the molar mass of a gas affects the rate at which the gas diffuses and effuses.

Lesson 10: Water and Its Properties

Objectives:
- Explain the high surface tension and low vapor pressure of water in terms of the surface structure of the water molecule and hydrogen bonding.

Lesson 11: Homogeneous Aqueous Systems (two-day lesson)

Objectives:
- Distinguish between a solvent and a solute.
- Describe what happens in the solution process.
- Explain why all ionic compounds are electrolytes.
- Demonstrate how the formula for a hydrate is written.

Lesson 12: Heterogeneous Aqueous Systems

Objectives:
- Distinguish between a suspension and a solution.
- Identify the distinguishing characteristic of a colloid.

Lesson 13: Unit Review (two-day lesson)

Objectives:
Lesson 14: Unit Test

Unit 2: Solutions, Acids, and Bases

In this unit you will continue to learn about different types of solutions as you examine some special properties of solutions and solve problems involving solubility and concentration. You will explore acids and bases as you compare acid-base theories, calculate acid and base concentrations, and describe what happens during neutralization reactions. You will have the opportunity to perform a virtual and a hands-on titration lab at the end of the unit.

Objectives:
- Identify the factors that determine the rate at which a solute dissolves
- Solve problems involving concentrations of solutions
- Define the properties of acids and bases
- Classify a solution as neutral, acidic, or basic
- Use the process of titration to determine the concentration of an acid or a base

Lesson 1: Lab Investigator: Chemical Reactions

Lesson 2: Properties of Solutions

Objectives:
- Identify the factors that determine the rate at which a solute dissolves.
- Identify the units usually used to express the solubility of a solute.
- Identify the factors that determine the mass of a solute that will dissolve in a given mass of solute.

Lesson 3: Concentrations of Solutions

Objectives:
- Solve problems involving molarity of a solution.
- Describe the effect of dilution on the total moles of solute in solution.
- Define percent by volume and percent by mass solutions.

Lesson 4: Colligative Properties of Solutions

Objectives:
- Identify three colligative properties of solutions.
- Explain why the vapor pressure, freezing point, and boiling point of a solution differ from those properties of the pure solvent.

Lesson 5: Acid-Base Theories

Objectives:
- Define the properties of acids and bases.
- Compare and contrast acids and bases as defined by the theories of Arrhenius, Bronsted-Lowry, and Lewis.

Lesson 6: Hydrogen Ions and Acidity

Objectives:
- Describe how [H+] and [OH-] are related in an aqueous solution.
- Classify a solution as neutral, acidic, or basic given the hydrogen-ion or hydroxide-ion concentrations.
- Convert hydrogen-ion concentrations into pH values and hydroxide-ion concentrations into pH values.
- Describe the purpose of an acid-base pH indicator.
Lesson 7: Strength of Acids and Bases (two-day lesson)

Objectives:
• Define strong acids and weak acids.
• Describe how an acid's strength is related to the value of its acid dissociation constant.
• Calculate an acid dissociation constant (Ka) from concentration and pH measurements.
• Order acids by strength according to their acid dissociation constants (Ka).
• Order bases by strength according to their base dissociation constants (Kb).

Lesson 8: Neutralization Reactions

Objectives:
• Define the products of an acid-base reaction.
• Explain how acid-base titration is used to calculate the concentration of an acid or a base.
• Explain the concept of equivalence in neutralization reactions.
• Describe the relationship between equivalence point and the end point of a titration.

Lesson 9: Virtual Titration Lab (two-day lesson)

Objectives:
• Define titration
• Titrate an acid and a base
• Calculate the molarity of an acid and a base

Lesson 10: Kitchen Table Titration Lab (three-day lesson)

Objectives:
• Titrate an acid
• Calibrate an eye dropper
• Calculate the molarity of an acid

Lesson 11: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit.

Lesson 12: Unit Test

Unit 3: Heat, Energy, and Reactions

In this unit you will continue to explore chemical reactions in terms of heat and energy as you learn how scientists measure the heat of a reaction and solve problems involving heat transfers in chemical reactions. You will identify factors that affect the rate of a reaction and design an experiment to test these factors. Finally, you will learn how amounts of reactants and products change in a chemical system at equilibrium and identify stresses that can change the equilibrium of a chemical reaction.

Objectives:
• Explain how energy, heat, and work are related
• Solve for enthalpy changes in chemical reactions
• Design an experiment to test the factors that affect the rate of a reaction
• Describe how the amounts of reactants and products change in a chemical system at equilibrium
• Identify stresses that may compromise the equilibrium of a chemical reaction
Lesson 1: The Flow of Energy - Heat and Work

Objectives:
• Explain how energy, heat, and work are related.
• Classify processes as either exothermic or endothermic.
• Identify the units used to measure heat transfer.
• Distinguish between heat capacity and specific heat.

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Lesson 2: Measuring and Expressing Enthalpy Changes

Objectives:
• Describe how calorimeters are used to measure heat flow.
• Construct thermochemical equations.
• Solve for enthalpy changes in chemical reactions by using heats of reaction.

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Lesson 3: Calculating Heats of Reaction

Objectives:
• State Hess's law of heat summation and describe how it is used in chemistry.
• Solve for enthalpy changes by using Hess's law or standard heats of formation.

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Lesson 4: Lab: Heat of Combustion

Objectives:
• Calculate the heat of combustion of methane gas

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Lesson 5: Rates of Reactions

Objectives:
• Describe how to express the rate of a chemical reaction.
• Identify four factors that influence the rate of a chemical reaction.

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Lesson 6: Factors that Affect the Rate of a Reaction (two-day lesson)

Objectives:
• Design an experiment
• Test factors that affect the rate of a reaction
• Record observations
• Draw conclusions based on direct observations

Lesson 7: Reversible Reactions and Equilibrium (two-day lesson)

Objectives:
• Describe how the amounts of reactants and products change in a chemical system at equilibrium.
• Identify three stresses that can change the equilibrium position of a chemical system.
• Explain what the value of Keq indicates about the position of equilibrium.

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Lesson 8: Entropy and Free Energy

Objectives:
• Identify two characteristics of spontaneous reactions.
• Describe the role of entropy in chemical reactions.
• Identify two factors that determine the spontaneity of a reaction.
• Define Gibbs free-energy change.

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Lesson 9: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit.

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Lesson 10: Unit Test

Unit 4: Electrochemistry

In this unit you will study electrochemistry, the branch of chemistry that deals with the relationship between electricity and chemical changes. You will examine how reactants and products gain and lose electrons, learn how to determine the oxidation number of an atom, and compare different types of electrochemical cells, which convert electrical energy into chemical energy or vice versa. In addition, you will have the opportunity to perform a virtual redox titration.

Objectives:
• Identify whether substances are being reduced or oxidized during a chemical reaction
• Determine the oxidation number of an atom
• Interpret an activity series
• Distinguish between electrolytic and voltaic cells

Lesson 1: The Meaning of Oxidation and Reduction (two-day lesson)

Objectives:
• Define oxidation and reduction in terms of the loss or gain of oxygen and the loss or gain of electrons.
• State the characteristics of a redox reaction and identify the oxidizing and reducing agent.
• Describe what happens to iron when it corrodes.

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Lesson 2: Oxidation Numbers

Objectives:
• Determine the oxidation number of an atom of any element in a pure substance.
• Define oxidation and reduction in terms of a change in oxidation number and identify atoms being oxidized or reduced in redox reactions.

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Lesson 3: Balancing Redox Reactions

Objectives:
• Describe how oxidation numbers are used to identify redox reactions.
• Balance a redox equation using the oxidation-number-change method.
• Balance a redox equation by breaking the equation into oxidation and reduction half-reactions, and then using the half-reaction method.

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Lesson 4: Virtual Lab: Redox Titrations (two-day lesson)

Objectives:
• Determine the concentration of iron in a sample using an oxidation-reduction titration with potassium permanganate.

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Lesson 5: Electrochemical Cells

Appendix A.2.c Science Course Guides Chemistry B
Objectives:
- Interpret an activity series and identify the elements that are most easily oxidized and those that are least easily oxidized.
- Name the types of reactions involved in electrochemical processes.
- Describe how a voltaic cell produces electrical energy.
- Describe current technologies that use electrochemical processes to produce energy.

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Lesson 6: Electrolytic Cells

Objectives:
- Distinguish between electrolytic and voltaic cells.
- Identify the products of the electrolysis of water.
- Describe the chemical changes that take place during the electrolysis of brine.
- Name three ways that electrolysis is used in metal processing.

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Lesson 7: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit.

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Lesson 8: Unit Test

Unit 5: Organic Chemistry

Many everyday items, such as clothes, food, and containers, are carbon-based, or organic compounds. Throughout this unit you will classify organic compounds, model their structures, examine how they form, and identify the organic compounds that certain common products contain. In addition, you will learn about the roles that carbon plays in biochemical processes.

Objectives:
- Classify organic compounds
- Construct general formulas and structures of organic compounds
- Describe how enzymes affect biochemical reactions
- Identify some common plastics and their uses

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Lesson 1: Hydrocarbons

Objectives:
- Describe the relationship between the number of valence electrons and bonding in carbon.
- Define and describe alkanes.
- Relate the polarity of hydrocarbons to their solubility.

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Lesson 2: Unsaturated Hydrocarbons and Isomers (two-day lesson)

Objectives:
- Describe the difference between unsaturated and saturated hydrocarbons.
- Distinguish between the structures of alkenes and alkynes.
- Explain why structural isomers have different properties.
- Describe the conditions under which geometric isomerism are possible.
- Identify optical isomers.

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Lesson 3: Hydrocarbon Rings

Objectives:

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Lesson 4: Hydrocarbons from Earth

Objectives:
- Identify three important fossil fuels and describe their origins.
- Describe the composition of natural gas, petroleum, and coal.
- Describe what happens when petroleum is refined.

Lesson 5: Introduction to Functional Groups

Objectives:
- Explain how organic compounds are classified.
- Identify halocarbons and the IUPAC rules for naming halocarbons.
- Describe how halocarbons can be prepared.

Lesson 6: Alcohols and Ethers

Objectives:
- Identify how alcohols are classified and named.
- Predict how the solubility of an alcohol varies with the length of its carbon chain.
- Name the reactions of alkenes that may be used to introduce functional groups.
- Construct the general structure of an ether and describe how ethers are named.

Lesson 7: Carbonyl Compounds (two-day lesson)

Objectives:
- Identify the structure of a carbonyl group as found in aldehydes and ketones.
- Construct the general formula for carboxylic acids and explain how they are named.
- Describe an ester.
- Explain how dehydrogenation is an oxidation reaction.

Lesson 8: Amino Acids and Their Polymers

Objectives:
- Diagram the structure of an amino acid.
- Describe how peptide bonds form and identify what determines the properties of peptides and proteins.
- Describe how enzymes affect biochemical reactions.

Lesson 9: Properties of Plastics (two-day lesson)

Objectives:
- Identify some of common plastics and their uses
- Compare and contrast the properties of different plastics and make inferences from those comparisons
- Identify products that different plastics can become through recycling

Lesson 10: Unit Review (two-day lesson)

Objectives:
Lesson 11: Unit Test

Unit 6: Nuclear Chemistry

Although nuclear materials are fairly common, most people do not know exactly what they are or what makes them both beneficial and dangerous. In this unit, you will explore different types and uses of radioactivity and analyze the various changes that nuclear particles may undergo. Also, you will learn how nuclear waste is stored and how scientists detect radiation.

Objectives:
• Describe the three types of nuclear radiation
• Solve problems involving nuclear decay
• Compare fission and fusion reactions
• Identify devices that are used to detect radiation
• Identify different uses of radiation

Lesson 1: Nuclear Radiation

Objectives:
• Explain how an unstable nucleus releases energy.
• Describe the three types of nuclear radiation.

Lesson 2: Nuclear Transformations (two-day lesson)

Objectives:
• Describe the type of decay a radioisotope undergoes.
• Solve problems that involve half-life.
• Identify the two ways transmutation can occur.

Lesson 3: Fission and Fusion of Atomic Nuclei

Objectives:
• Describe what happens in a nuclear chain reaction.
• Explain the role of water in the storage of spent fuel rods.
• Distinguish fission reactions from fusion reactions.

Lesson 4: Radiation in Your Life

Objectives:
• Identify three devices that are used to detect radiation.
• Describe how radioisotopes are used in medicine.

Lesson 5: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit.

Lesson 6: Unit Test

Unit 7: Final Review and Exam

In this unit, you will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the semester. Since this
is a comprehensive exam, it may be helpful to organize your notes and answers to questions in your Science journal before you begin to review.

Objectives:
- Identify strategies that you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, answers to lesson questions and assessments, and key vocabulary terms

Lesson 1: Chemistry B Final Review (three-day lesson)

Objectives:
- Identify strategies that you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, answers to lesson questions and assessments, and key vocabulary terms

Lesson 2: Chemistry B Final Exam
EARTH SCIENCE A
Earth Science A

This is the first of two courses that comprise Earth Science. This course is designed to prepare the student to confidently enter and complete college-level Earth science courses. The Prentice Hall text, Earth Science, provides the basis for the course content.

This course consists of varied curriculum that provides the student the opportunity to explore, compare, research, reflect, and make real-world connections. The student will engage in hands-on explorations and virtual simulations, which will enhance traditional lesson formats.

During this course, the student will identify the branches of Earth science, locate geographic features on topographic maps, conduct hands-on experiments with minerals and rocks, compare and contrast weathering and erosion, explore plate tectonics with relation to earthquakes and volcanoes, and investigate the formation of mountains.

Unit 1: Introduction to Earth Science

Earth Science is a vast branch of science that covers many subject areas, including geology, oceanography, meteorology, and astronomy. Earth scientists study physical and chemical aspects of Earth and its place in the solar system, using various mapping techniques and advanced global positioning technology. Because Earth contains so many interactive parts, scientists often study Earth as a system. The Earth system is powered by energy from the sun and by geologic forces inside Earth.

In this introductory unit, you will learn about Earth’s composition and internal structure. You will read about different techniques that scientists use to study Earth and other planets in the solar system and you will learn how the theory of plate tectonics influences the field of Earth science. You will explore Earth’s four major spheres—the geosphere, hydrosphere, atmosphere, and biosphere—and you will determine how human activity impacts the Earth system.

Objectives:

• Define Earth science and identify skills that scientists use to solve problems
• Explain Earth’s major spheres and describe how Earth formed
• Identify different types of maps and what they can be used for
• Explain why Earth is often studied as a system and describe how humans affect Earth’s systems

Lesson 1: What Is Earth Science?

Objectives:

• Define Earth science
• Describe the formation of Earth and the solar system

Lesson 2: A View of Earth

Objectives:

• Describe Earth's four major spheres
• Differentiate among the three parts of the geosphere
• State the value of the theory of plate tectonics to Earth science

Lesson 3: Representing Earth's Surface

Objectives:

• Locate points on the Earth's surface by their latitude and longitude
• Describe the advantages and disadvantages of different types of maps
• Explain what makes topographic maps different from other maps

Lesson 4: Earth System Science
Lesson 5: What Is Scientific Inquiry?

Objectives:
- Define the terms hypothesis and theory

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Lesson 6: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

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Lesson 7: Unit Test

Unit 2: Minerals

Did you know that close to 4,000 different minerals have been identified on Earth? When scientists discover a new mineral, they study its physical characteristics and try to determine how it may have formed. Once a mineral has been named, it can be grouped with other minerals that share similar properties.

In this unit, you will examine some of the more common mineral groups on Earth, including silicates, carbonates, oxides, sulfates, sulfides, halides, and native elements. You will learn about mineral properties and the tests that scientists conduct to classify minerals. You will also study elements, atoms, and subatomic particles, and you will learn how atoms of different elements combine to form compounds.

Objectives:
- Describe how minerals, elements, atoms, and subatomic particles are related
- Explain how compounds form and describe chemical bonds within compounds
- Determine mineral characteristics that can be used for classification purposes
- Identify various tests that scientists can conduct to identify mineral samples

Lesson 1: Matter: Part 1

Objectives:
- Explain how elements are related to minerals
- Identify the kinds of particles that make up atoms
- Explain the differences between ions and isotopes

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Lesson 2: Matter: Part 2

Objectives:
- Explain what compounds are and describe why they form
- Compare and contrast the three major types of chemical bonds

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Lesson 3: Minerals

Objectives:
- List five characteristics of minerals
- Describe the processes that result in mineral formation
- Explain how minerals can be classified
- List some of the major groups of minerals
Lesson 4: Properties of Minerals

Objectives:
• Explain why color is often not a useful property in identifying minerals
• Define the terms luster, crystal form, streak, and Mohs scale
• Distinguish between cleavage and fracture
• Explain density and how it can be used to identify substances
• Describe some other properties that can be used to identify minerals

Lesson 5: Lab: Mineral Identification (two-day lesson)

Objectives:
• Explain some of the simple tests that can be used to identify minerals
• Differentiate among some of the common rock-forming minerals

Lesson 6: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit

Lesson 7: Unit Test

Unit 3: Rocks

When different minerals mix together, they form rocks. There are three main types of rocks on Earth—igneous, sedimentary, and metamorphic—each of which forms in a unique way. Rocks can change from one type to another because of the rock cycle, which you will learn about, and the constant changes within Earth’s interior.

In this unit, you will study each rock type in great detail. You will learn how each one forms and where scientists usually find that type of rock on Earth. You will explore the rock cycle and the natural processes that influence rock transformations. At the end of the unit, you will conduct an investigation using various samples from your rock kit.

Objectives:
• Explain the rock cycle and identify the three main types of rocks
• Identify igneous, sedimentary, and metamorphic rocks and where they might be located
• Explain the forces that drive the rock cycle
• Determine which tests can be used to identify rocks

Lesson 1: The Rock Cycle

Objectives:
• Define the term rock
• Identify the three major types of rocks and explain how they differ
• Describe the rock cycle
• List the forces that power Earth's rock cycle

Lesson 2: Igneous Rocks

Objectives:
• Compare and contrast intrusive and extrusive igneous rocks
• Demonstrate how the rate of cooling affects an igneous rock's texture
• Classify igneous rocks according to texture and composition
Lesson 3: Sedimentary Rocks

Objectives:
- Describe the major processes involved in the formation of sedimentary rock
- Distinguish between clastic sedimentary rocks and chemical sedimentary rocks
- Identify the features that are unique to some sedimentary rocks

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Lesson 4: Metamorphic Rocks

Objectives:
- Predict where most metamorphism takes place
- Distinguish contact metamorphism from regional metamorphism
- Identify the three agents of metamorphism and explain what changes they cause
- Recognize foliated metamorphic rocks and describe how they form
- Classify metamorphic rocks

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Lesson 5: Lab: Rock Identification (two-day lesson)

Objectives:
- Explain some of the simple tests that can be used to identify rocks
- Differentiate among some of the common rocks

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Lesson 6: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

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Lesson 7: Unit Test

Unit 4: Earth’s Resources

Earth contains valuable resources—such as air and water—that are used every day by plants, animals, and humans. These resources are categorized into two main groups: renewable resources and nonrenewable resources. Since there are limited amounts of nonrenewable resources on Earth, scientists have determined alternative ways to extract energy from resources such as wind, water, and the sun.

In this unit, you will explore different forms of renewable and nonrenewable resources. You will read about fossil fuels and the ways they are used to produce energy for various human activities. You will identify alternative energy resources and their advantages and disadvantages, and you will explore how Earth’s natural resources can be protected from harmful pollutants and overuse.

Objectives:
- Differentiate between renewable and nonrenewable resources
- Define fossil fuels and explain how and what they are used for
- Identify alternative energy resources and explain their advantages and disadvantages
- Determine ways in which land, water, and air resources can be protected
- Identify laws that address different forms of pollution

Lesson 1: Energy and Mineral Resources

Objectives:
- Distinguish between renewable and nonrenewable resources
- Identify which energy resources are fossil fuels
- Predict which energy resources might replace dwindling petroleum supplies in the future
Lesson 2: Alternate Energy Resources

Objectives:
- Evaluate the advantages of solar energy
- Explain how nuclear power plants use nuclear fission to produce energy
- Evaluate wind power's potential for providing energy in the future
- Relate how hydroelectric power, geothermal energy, and tidal power contribute to our energy resources

Lesson 3: Water, Air, and Land Resources

Objectives:
- Explain why fresh water is a vital resource
- Recognize why the chemical composition of the atmosphere is important
- Identify Earth’s important land resources

Lesson 4: Protecting Resources

Objectives:
- Identify the first laws passed to deal with water pollution
- Name the most important law passed to deal with air pollution
- Explain what is involved in protecting land resources

Lesson 5: Lab: Products that Conserve Resources (two-day lesson)

Objectives:
- Measure the dimensions of three different-sized juice cartons
- Calculate the surface area of each carton
- Compare the amount of cardboard used in each carton
- Evaluate the packaging for which conserves resources the best

Lesson 6: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

Lesson 7: Unit Test

Unit 5: Sculpturing Earth's Surface

Geologically, Earth is constantly changing. Earth’s surface is influenced by internal forces that create mountains and external forces that weather and erode Earth’s crust. Some geologic changes occur over long periods of time, while others happen quickly, drastically changing landscapes in minutes.

In this unit, you will study processes that sculpt Earth’s surface, including weathering, erosion, deposition, and even human activities such as logging and construction. You will learn how and why mass movements occur, and you will explore the various ways water can shape landscapes over time.

Objectives:
- Explain the difference between mechanical weathering and chemical weathering and compare and contrast the processes of weathering and erosion
• Identify the major components of soil and explain how soil type varies with depth
• Explain Earth’s water cycle and describe how the water cycle is kept in balanced
• Identify different types of mass movements and explain how streams cause erosion
• Describe different forms of groundwater and explain how groundwater resources can become polluted

Lesson 1: Weathering

Objectives:
• Define mechanical weathering
• Explain chemical weathering
• Identify the factors that affect the rate of weathering

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Lesson 2: Soil

Objectives:
• Recognize the major components of soil and list the most important factors in soil formation
• Explain how soil varies with depth
• Compare and contrast the three most common types of soil
• Demonstrate how human activities can affect the rate of soil erosion

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Lesson 3: Mass Movements

Objectives:
• Define mass movement
• Identify the factors that trigger mass movements
• Classify mass movements

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Lesson 4: Lab: Effect of Temperature on Chemical Weathering

Objectives:
• Determine the relationship between temperature and chemical weathering

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Lesson 5: Running Water

Objectives:
• Explain how the water cycle circulates Earth’s water supply in an unending cycle
• Explain how the water cycle is kept in balance
• Describe the ability of a stream to erode and transport material
• Compare and contrast the changes in gradient and discharge between a stream’s headwaters and mouth
• Define base level

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Lesson 6: The Work of Streams

Objectives:
• Explain how streams erode their channels and transport sediments
• Explain how stream deposition occurs
• Identify the two general types of stream valleys
• Predict the causes of floods and describe major flood control measures
• Explain the relationship between streams and drainage basins

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Lesson 7: Water Beneath the Surface

Appendix A.2.c Science Course Guides
Objectives:
• Describe the location and movement of groundwater
• Describe the formation of a spring
• Explain environmental threats to water supplies
• Describe the formation of caverns
• Describe landforms in karst areas

Lesson 8: Unit Review (two-day lesson)
Objectives:
• Review the concepts presented in the unit

Lesson 9: Unit Test

Unit 6: Glaciers, Deserts, and Wind
Glaciers cover and shape approximately 10 percent of the total land area on Earth. As a glacier moves—or flows—it erodes rock from valley floors and walls. In sharp contrast, deserts are areas that lack moisture and have very little organic material. Desert ecosystems are easily shaped by running water and wind.

In this unit, you will learn about glaciers and deserts. You will study different types of glaciers and how they move, and you will read how sand- and pebble-covered deserts are affected by the processes of weathering and erosion. At the end of the unit, you will take a closer look at exactly how wind erodes desert landscapes.

Objectives:
• Identify different types of glaciers and explain glacial movement
• Use a topographic map to infer how geographic features were formed by glaciers
• Explain how running water and the process of weathering affect deserts
• Describe how landscapes are shaped by wind erosion

Lesson 1: Glaciers
Objectives:
• Describe the different types of glaciers and where each type is found
• Explain how glaciers move and describe the different types of glacial drift
• Identify the landscape features that glaciers form
• Explain the causes of the most recent ice age

Lesson 2: Lab: Interpreting a Glacial Landscape
Objectives:
• Use a topographic map to identify geographic features formed by glaciers
• Infer how geographic features were formed

Lesson 3: Deserts
Objectives:
• Describe how running water affects deserts
• Explain the roles mechanical and chemical weathering play in the formation of deserts

Lesson 4: Landscapes Shaped by Wind
Objectives:
• Describe two ways that wind can cause erosion
• Identify types of landforms that are deposited by the wind
Lesson 5: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

Lesson 6: Unit Test

Unit 7: Earthquakes and Earth's Interior

Caused by the rapid release of energy stored inside Earth, earthquakes can greatly damage Earth's surface, particularly if they occur near a large city. Earthquakes can create various hazards, including seismic shaking, landslides, and even tsunamis.

In this unit, you will explore earthquakes and why they occur. By completing the lab Locating an Earthquake you will learn how scientists are able to determine an earthquake’s epicenter and its focus. In order to understand how scientists measure earthquakes, you will study two types of seismic waves: body waves and surface waves.

Objectives:
- Describe how earthquakes occur and explain the difference between an earthquake’s epicenter and its focus
- Identify major hazards that are associated with earthquakes and explain how earthquake damage can be minimized
- Explain different types of seismic waves and describe how earthquakes are measured
- Identify Earth’s layers and describe the composition of each layer

Lesson 1: What Is an Earthquake?

Objectives:
- Compare and contrast the epicenter and focus of an earthquake
- Identify the cause of earthquakes
- Compare and contrast aftershocks and foreshocks

Lesson 2: Measuring Earthquakes

Objectives:
- Identify the three types of seismic waves
- Describe how seismic waves are recorded
- Describe the different ways earthquakes are measured
- Explain how to locate the epicenter of an earthquake

Lesson 3: Earthquake Hazards

Objectives:
- Identify the major hazards associated with earthquakes
- Describe how earthquake damage can be reduced

Lesson 4: Earth's Layered Structure

Objectives:
- List the layers of the Earth based on composition and physical properties
- Describe the composition of each layer of Earth
- Explain how scientists determined Earth's structure and composition

Lesson 5: Lab: Locating an Earthquake (two-day lesson)
Unit 8: Plate Tectonics and Other Igneous Activity

The hypothesis of continental drift, followed by the theory of plate tectonics, significantly changed scientists’ understanding of Earth’s geologic forces. As scientists began to accept new ideas about movement within Earth’s layers, they were able to explain many other geologic forces, such as earthquakes, volcanic eruptions, and even seafloor spreading.

In this unit, you will explore the theory of plate tectonics and how it impacted the field of geology. You will learn what causes tectonic plate motion and you will examine different types of plate boundaries. During the unit, you will read how volcanic eruptions are directly related to activity within Earth’s interior. You will learn about different types of volcanism and you will study the three main types of volcanoes: shield, cinder cone, and composite cone.

Objectives:
- Explain the hypothesis of continental drift and the theory of plate tectonics
- Explain seafloor spreading and identify evidence, such as paleomagnetism, that supports the idea of seafloor spreading
- Explain how volcanic activity is closely related to plate tectonics
- Identify the three main types of volcanoes and describe the different materials that are ejected from volcanoes during an eruption
- Define intrusive igneous features, such as dikes, sills, laccoliths, and batholiths

Lesson 1: Continental Drift

Objectives:
- Describe the hypothesis of continental drift
- Evaluate the evidence in support of continental drift
- Identify the main objections to Wegener’s hypothesis of continental drift

Lesson 2: Sea-Floor Spreading

Objectives:
- Identify mid-ocean ridges and deep-ocean trenches
- Explain the processes of sea-floor spreading and subduction
- Explain the evidence for sea-floor spreading, including paleomagnetism and magnetic reversals, earthquake patterns, and the age of the ocean floor

Lesson 3: Theory of Plate Tectonics

Objectives:
- Explain the theory of plate tectonics
- Describe lithospheric plates
- Identify the three types of plate boundaries

Lesson 4: Mechanisms of Plate Motion

Objectives:
Lesson 5: Lab: Paleomagnetism and the Ocean Floor (two-day lesson)

Objectives:
• Learn how the paleomagnetic patterns on the ocean floor are used to determine the rate of sea-floor spreading

Lesson 6: Volcanoes and Plate Tectonics

Objectives:
• Describe the origin of magma
• Explain the relationship between plate tectonics and volcanism, including intraplate volcanism

Lesson 7: The Nature of Volcanic Eruptions

Objectives:
• Explain the factors that determine the type of volcanic eruptions that occur
• Describe the various types of volcanic materials that are ejected from volcanoes
• List the three main types of volcanoes
• Distinguish how the different types of volcanic landforms form

Lesson 8: Intrusive Igneous Activity

Objectives:
• Describe the major intrusive igneous features such as dikes, sills, and laccoliths, and how they form
• Describe batholiths and how they form

Lesson 9: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit

Lesson 10: Unit Test

Unit 9: Mountain Building

Mountains are classified into four main types: volcanic, folded, fault-block, and dome. These types of mountains can be found in various places on Earth’s surface. The mountain-building process occurs mostly at convergent plate boundaries, where colliding plates result in massive forces that create mountains.

In this unit, you will explore how and where mountains are built on Earth’s surface. You will identify the four main types of mountains and at which convergent plate boundary they usually occur. During the unit, you will complete an investigation of anticlines and synclines, which will help you better understand the different types of folded mountains.

Objectives:
• Define deformation and describe how rocks permanently deform due to stress
• Determine what role isostasy plays in the process of mountain building
Lesson 1: Forces in Earth's Crust

Objectives:
- Identify the factors that determine the strength of a rock and explain how rocks permanently deform
- Distinguish among the types of stresses that affect rocks
- Explain how isostatic adjustment is involved in mountain formation

Lesson 2: Folds, Faults, and Mountains

Objectives:
- List the three main types of folds
- Identify the main types of faults
- Describe folded mountains and fault-block mountains and explain how they form
- Describe plateaus, domes, and basins and explain how they form

Lesson 3: Mountains and Plates

Objectives:
- Identify the type of mountains associated with the different types of convergent plate boundaries
- Identify the type of mountains associated with divergent plate boundaries
- Describe the role of accretion in the formation of continents and mountain building

Lesson 4: Lab: Investigating Anticlines and Synclines (two-day lesson)

Objectives:
- Measure the angles of rock layers in diagrams of an anticline or a syncline
- Determine whether a fold is an anticline or a syncline
- Visualize how rocks are oriented in anticlines and synclines
- Make a block diagram to show the appearance of an eroded fold

Lesson 5: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

Lesson 6: Unit Test

Unit 10: Final Review and Exam

In this unit, you will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes and answers to questions in your science journal before you begin to review.

Objectives:
- Identify strategies that you will use to prepare for the final exam
- Organize your time and study materials
• Review your notes, answers to lesson questions and assessments, and key vocabulary terms

**Lesson 1: Earth Science A Final Review (three-day lesson)**

**Lesson 2: Earth Science A Final Exam**

Reach Cyber Charter School Application

Appendix A.2.c Science Course Guides  
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EARTH SCIENCE B
Earth Science B

This is the second of two courses that comprise Earth Science. This course is designed to prepare the student to confidently enter and complete college-level Earth science courses. The Prentice Hall text, *Earth Science*, provides the basis for the course content.

This course consists of varied curriculum that provides the student the opportunity to explore, compare, research, reflect, and make real-world connections. The student will engage in hands-on explorations and virtual simulations, which will enhance traditional lesson formats.

During this course, the student will explore Earth’s history by studying fossils and rock layers; investigate oceanic productivity and features on the sea floor; learn about atmospheric processes, including the water cycle; infer how severe storms form; study the Earth-moon-sun relationship; and explore other celestial bodies, such as stars.

**Unit 1: Geologic Time and Earth's History**

In this introductory unit, you will explore Earth's early history by studying fossils, the rock record, and the geologic time scale. You will learn how scientists are able to date rock layers using radiometric dating, and how they are able to develop theories of past environments using fossils. In addition, you will learn how the geologic time scale is organized and how it was originally developed by scientists in the 1800s.

During this unit, you will complete a lab on fossils, which will enable you to understand how fossils can be used to define rock sequences. At the end of the unit, you will study Precambrian Time and the Paleozoic, Mesozoic, and Cenozoic Eras. You will learn how Earth changed biologically and geologically during these important time periods in history.

Objectives:
- Describe the different types of fossils and explain how fossils and the fossil record help explain Earth's history
- Explain radiometric dating and list different elements that can be studied to date rock layers
- Explain how the geologic time scale is organized and define eons, eras, periods, and epochs
- Explain how oceans and the atmosphere formed during Precambrian Time
- Identify significant geologic and biologic factors during the Paleozoic, Mesozoic, and Cenozoic Eras

**Lesson 1: Discovering Earth’s History**

Objectives:
- List three main ideas that geologists use in studying Earth's history
- List the key principles of relative dating and describe how geologists use relative dating in their work
- Describe how geologists use inclusions, unconformities, and correlation of rock layers to interpret the rock record

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**Lesson 2: Fossils: Evidence of Past Life**

Objectives:
- Describe the different types of fossils and how they form
- Identify the factors that determine if an organism will become a fossil
- Explain how the principle of fossil succession and the theory of evolution help scientists interpret the fossil record
- Describe how geologists use fossils to correlate rock layers and reconstruct past environments

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**Lesson 3: Dating with Radioactivity**

Objectives:
- Define radioactivity and half-life
Lesson 4: The Geologic Time Scale

Objectives:
- Describe the geologic time scale
- Explain how the geologic time scale is organized

Lesson 5: Lab: Fossil Occurrence and the Age of Rocks (two-day lesson)

Objectives:
- Use fossils to assign relative dates to rocks and rock sequences

Lesson 6: Precambrian Time

Objectives:
- Describe the major geologic developments of Precambrian time
- Describe the major developments in the evolution of living things during Precambrian time

Lesson 7: Paleozoic Era: Life Explodes (two-day lesson)

Objectives:
- List the kinds of environmental changes that have affected the evolution of life over geologic time
- Describe the major developments in Earth's geology and life forms during the Paleozoic era

Lesson 8: Mesozoic Era: Age of Reptiles

Objectives:
- Describe the major developments in Earth's geology and life forms during the Mesozoic era
- State the cause of the mass extinction at the end of the Mesozoic era

Lesson 9: Cenozoic Era: Age of Mammals

Objectives:
- Explain why mammals became widespread and successful in the Cenozoic era
- Describe the major developments in Earth's geology and life forms during the Cenozoic era

Lesson 10: Unit Review (two-day lesson)

Lesson 11: Unit Test (two-day lesson)

Unit 2: Oceanography

In this unit, your reading assignments and activity components will immerse you in the field of oceanography. From physical features of the ocean floor to ocean productivity and the diversity of marine life, you will find that you cover most aspects of the world's oceans.
During this unit, you will study the density of seawater. You will be asked to complete a Virtual Lab in which you will experiment with different solids and liquids, to better understand density. At the end of the unit, you will learn about waves, tides, and how ocean waters circulate throughout the world. You will also learn about shoreline processes and how various features are created due to natural causes.

Objectives:
- Define oceanography and identify the main differences between land and ocean features on Earth
- Identify the main regions of the ocean floor and list the different types of seafloor sediments
- Describe how marine organisms are classified and explain how the ocean is divided into different marine zones
- Explain ocean circulation and identify the difference in density between fresh water and seawater
- Examine ocean waves, tides, and the processes that form shoreline features

Lesson 1: The Vast World Ocean

Objectives:
- Recognize that most of Earth’s surface is covered by water
- List Earth’s four main ocean basins and identify their locations
- Describe the topography of the ocean floor and compare it to land
- Identify and describe three major technologies used to study the ocean floor

Lesson 2: Ocean Floor Features

Objectives:
- List the three main regions of the ocean floor
- Differentiate between the continental margins of the Atlantic and Pacific Oceans
- Explain the features of the ocean floor at deep-ocean trenches, abyssal plains, and mid-ocean ridges

Lesson 3: Seafloor Sediments

Objectives:
- List the three types of seafloor sediments
- Describe the formation of terrigenous, biogenous, and hydrogenous sediments

Lesson 4: Resources from the Seafloor

Objectives:
- Identify ocean resources used for energy production
- Explain how gas hydrates are formed
- List other types of ocean resources

Lesson 5: The Composition of Seawater (two-day lesson)

Objectives:
- Identify the units used to express the salinity of ocean water
- List the sources of salt in ocean water
- Recognize the factors that affect the density of ocean water
- Compare and contrast the three main zones of the open ocean
Lesson 6: The Diversity of Ocean Life

Objectives:
- Recognize how marine organisms can be classified
- Differentiate between plankton and nekton
- Describe the area of the ocean in which most benthic organisms live
- List the factors used to divide the ocean into marine zones

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Lesson 7: Oceanic Productivity

Objectives:
- List the factors that influence a region's photosynthetic productivity
- Describe the transfer of energy from one trophic level to another
- Compare and contrast food webs and food chains

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Lesson 8: Lab: Seawater Density (two-day lesson)

Objectives:
- Learn about the difference in density between freshwater and seawater

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Lesson 9: Ocean Circulation

Objectives:
- Explain how surface currents develop
- Describe how ocean currents affect climate
- State the importance of upwelling
- Describe the formation of density currents

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Lesson 10: Waves and Tides (two-day lesson)

Objectives:
- Describe how ocean waves get their energy
- State three factors that determine the characteristics of a wave
- Describe how energy moves through a wave
- Explain the forces that produce tides

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Lesson 11: Shoreline Processes and Features (two-day lesson)

Objectives:
- List the agents responsible for the movement of sediments along the shoreline
- Explain how refraction affects wave action along the shore
- Describe the processes that form shoreline features
- List the structures that can be built to protect a shoreline

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Lesson 12: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

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Lesson 13: Unit Test

Unit 3: Meteorology: Part 1
In this unit, you will study various topics within the field of meteorology. You will learn how to differentiate between weather and climate, and you will compare and contrast heat and temperature. When studying heat, you will complete an investigation about the specific heat of land and water.

During this unit, you will also explore how clouds form. You will learn about the four processes that lift air—orographic lifting, frontal wedging, convergence, and localized convective lifting—and you will study how different types of precipitation form. At the end of the unit, you will study air pressure and wind. You will learn how air pressure is exerted on objects and how local and regional wind patterns form.

Objectives:
- Explore characteristics of the atmosphere and compare and contrast weather and climate
- Define heat and temperature and explain how heat is transferred
- Study the heating of land and water and complete a virtual lab on specific heat
- Explain water's changes of state and describe various forms of precipitation
- Study air pressure and identify local winds and regional weather patterns

Lesson 1: Atmosphere Characteristics

Objectives:
- Compare and contrast weather and climate
- Explain why seasonal changes occur

Lesson 2: Heating the Atmosphere

Objectives:
- Explain how heat and temperature are related
- List the three major mechanisms of heat transfer
- Describe how the atmosphere is affected by heat transfer mechanisms

Lesson 3: Temperature Controls

Objectives:
- Explain what temperature control is
- Compare and contrast the heating of land and water
- Explain why some clouds reflect a portion of sunlight back to space

Lesson 4: Lab: Heating Land and Water (two-day lesson)

Objectives:
- Model the difference in the heating of land and water when they are subjected to a source of radiation

Lesson 5: Water in the Atmosphere

Objectives:
- Identify the gas that is most important for understanding atmospheric processes
- Describe what happens during a change of state
- Compare and contrast the abilities of cold air and warm air to hold water vapor
- Define relative humidity
- Describe the factors that affect the relative humidity of air

Lesson 6: Cloud Formation

Objectives:
- Describe what happens to air when it is compressed or allowed to expand
- List four mechanisms that cause air to rise
- Compare and contrast movements of stable and unstable air
- Describe the conditions in air that favor condensation of water

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Lesson 7: Cloud Types and Precipitation

Objectives:
- Describe how clouds are classified
- Compare and contrast clouds and fogs
- Explain what must happen for precipitation to form
- Identify what controls the type of precipitation that reaches Earth's surface

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Lesson 8: Understanding Air Pressure

Objectives:
- Describe how air pressure is exerted on objects
- Explain how changes in air pressure affect the mercury column of a barometer
- Identify the ultimate energy source for wind
- Describe how the Coriolis effect influences freely moving objects

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Lesson 9: Pressure Centers and Winds

Objectives:
- Explain how winds blow around pressure centers in the Northern and Southern Hemispheres
- Describe the air pressure patterns within cyclones and anticyclones
- Describe how friction controls the net flow of air around a cyclone and an anticyclone
- Explain how the unequal heating of Earth's surface affects the atmosphere

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Lesson 10: Regional Wind Systems

Objectives:
- Identify the causes of local winds
- Describe the general movement of weather in the United States
- Compare and contrast weather patterns characteristic of El Niño and La Niña events

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Lesson 11: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

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Lesson 12: Unit Test

Unit 4: Meteorology: Part 2

In this unit, you will continue your study of meteorology. First you will learn about air masses and how they are classified. Then you will explore fronts, including: warm fronts, cold fronts, stationary fronts, and occluded fronts. You will also study severe storms and you will identify the conditions in which they form.
During this unit, you will explore global climates and the characteristics that define them. You will learn about some of the natural processes that can cause changes in climate, and you will study global warming. Upon completion of the unit, you will have a better understanding of the consequences of global warming and climate change.

Objectives:
- Explain how air masses are classified and describe the four main types of fronts
- Become familiar with the atmospheric conditions that cause thunderstorms, tornadoes, and hurricanes
- Explain how middle-latitude cyclones affect local weather patterns
- Explain how elevation, mountain ranges, global winds, large bodies of water, and vegetation affect climate
- Compare and contrast world climates and their characteristics

Lesson 1: Air Masses

Objectives:
- Define air mass
- Explain how air masses are classified
- Explain the characteristics of each air mass class
- Explain the influence of continental polar and maritime tropical air masses on the majority of North America

Lesson 2: Fronts

Objectives:
- Describe the formation of a front
- Differentiate among the formation of a warm front, cold front, stationary front, and occluded front
- Describe the weather patterns associated with each type of front

Lesson 3: Severe Storms (two-day lesson)

Objectives:
- Explain the formation of a thunderstorm
- Describe the conditions needed for a tornado to form
- Identify the conditions that must exist for a hurricane to form

Lesson 4: Lab: Middle-Latitude Cyclones (two-day lesson)

Objectives:
- Explain how middle-latitude cyclones affect the weather of the area over which they form
- Predict how middle-latitude cyclones change weather patterns as they move through an area

Lesson 5: Factors that Affect Climate

Objectives:
- Describe how latitude affects climate
- Describe how elevation and mountain ranges affect climate
- Describe how large bodies of water affect climate
- Describe how global winds affect climate
- Describe how vegetation affects climate

Lesson 6: World Climates

Objectives:
Lesson 7: Climate Changes

Objectives:
- Describe natural processes that can cause changes in climate
- Explain the greenhouse effect
- Define global warming
- List some of the consequences of global warming

Lesson 8: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

Lesson 9: Unit Test

Unit 5: Astronomy: Part 1

In this unit, you will begin to study outer space. You will first learn how early astronomers viewed Earth's place in the solar system, and you will study famous contributors to early astronomy, such as Galileo and Newton. Next you will study the Earth-moon-sun system and you will identify different features on the surface of the moon.

During this unit, you will examine the solar system and its interrelated parts. You will learn about the terrestrial and Jovian planets, as well as other bodies such as asteroids, meteors, and comets. By the end of the lesson, you will be able to explain why Pluto is no longer considered one of the planets in our solar system.

Objectives:
- Compare and contrast the early models of the solar system and explain the contributions of early astronomers
- Describe movements of the Earth-moon-sun system and explain the physical nature of the moon
- Complete an investigation of the different phases of the moon
- List the major differences between the inner planets and the outer planets
- Explain why Pluto is not a planet and describe asteroids, meteors, and comets

Lesson 1: Early Astronomy

Objectives:
- Describe the contributions of ancient Greeks to astronomy
- Compare and contrast the geocentric and heliocentric models of the solar system
- Explain the contributions to astronomy of Copernicus, Brahe, Kepler, Galileo, and Newton

Lesson 2: The Earth-Moon-Sun System

Objectives:
- Describe the movements of Earth known as rotation, revolution, and precession
- Explain how the moon goes through phases
- Explain how eclipses occur
Lesson 3: Earth's Moon

Objectives:
- Describe how the physical features of the lunar surface were created
- Explain the history of the moon

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Lesson 4: Virtual Lab: Tracking the Phases of the Moon (two-day lesson)

Objectives:
- Investigate the phases of the moon

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Lesson 5: The Solar System

Objectives:
- List the major differences between the terrestrial and Jovian planets
- Explain how the solar system formed

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Lesson 6: The Terrestrial Planets

Objectives:
- Describe the distinguishing characteristics of each terrestrial planet

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Lesson 7: The Outer Planets (and Pluto)

Objectives:
- Describe the distinguishing characteristics of each Jovian planet
- Explain why Pluto is not considered a planet

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Lesson 8: Minor Members of the Solar System

Objectives:
- Identify the location within our solar system where most asteroids are found
- Describe the structure of a comet
- Explain the possible origins for a meteoroid

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Lesson 9: Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

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Lesson 10: Unit Test

Unit 6: Astronomy: Part 2

In this unit, you will study light and how it applies to the field of astronomy. You will examine the electromagnetic spectrum and you will learn how the Doppler effect can be used to study stars. You will also study the following types of telescopes: refracting, reflecting, radio, and space.

During this unit, you will investigate the orbital speed of the planets in our solar system. You will also learn about star properties and the birth, life, and death of stars. Finally, you will learn about the universe on a greater scale; you will discover that scientists believe in universal expansion and you will study the big bang theory.

Objectives:
Lesson 1: The Study of Light

Objectives:
• Describe the waves that compose the electromagnetic spectrum
• Describe what the different types of spectra reveal about stars
• Explain how the Doppler effect is applied to the motion of stars in relation to Earth

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Lesson 2: Tools for Studying Space

Objectives:
• Explain how refracting, reflecting, and radio telescopes work
• Describe the advantages and disadvantages of each type of telescope
• Explain the advantages that a space telescope has over an Earth-based telescope

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Lesson 3: The Sun

Objectives:
• Explain the structure of the sun
• Describe the physical features on the surface of the sun
• Explain how the sun produces energy

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Lesson 4: Virtual Lab: Measuring Orbital Speed of Planets (two-day lesson)

Objectives:
• Determine how fast Earth and the other planets are moving

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Lesson 5: Properties of Stars

Objectives:
• Describe what astronomers can learn by studying star properties
• Explain how distance affects parallax
• List the factors that determine a star’s apparent magnitude
• Describe the relationship shown on a Hertzprung-Russell diagram

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Lesson 6: Stellar Evolution

Objectives:
• Identify which stage marks the birth of a star
• Explain why all stars eventually die
• List the stages of the sun’s life cycle

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Lesson 7: The Universe

Objectives:
• Describe the size and structure of the Milky Way Galaxy
• List the ways in which galaxies differ from one another
• Cite the evidence that indicates that the universe is expanding

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• Describe how the universe began according to the big bang theory

Lesson 8: Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit

Lesson 9: Unit Test

Unit 7: Final Review and Exam

In this unit, you will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes and answers to questions in your science journal before you begin to review.

Objectives:
• Identify strategies that you will use to prepare for the final exam
• Organize your time and study materials
• Review your notes, answers to lesson questions and assessments, and key vocabulary terms

Lesson 1: Earth Science B Final Review (three-day lesson)

Objectives:
• Review the concepts presented in the course

Lesson 2: Earth Science B Final Exam
PHYSICAL SCIENCE A
Physical Science A

This is the first of two courses that comprise Physical Science. The course is designed to provide students with an understanding of essential chemistry concepts. The course extends the student's prior knowledge of the properties, states, and structure of matter, explores the dynamics of chemical bonding and reactions, and introduces the student to nuclear chemistry. Physical Science A includes hands-on explorations and virtual simulations to enhance the student's comprehension of key concepts.

Unit 1: Science Skills

In this introductory unit, you will learn that physical science is a vast branch of science that covers the physics and chemistry of nonliving things. You will explore how the major branches of science overlap and you will learn how scientists solve problems using the scientific method. By completing this unit, you will have a general understanding of the International System of Units (SI) how to present scientific data.

Objectives:
- Recognize the ways in which science and technology are related
- Explain how major branches of science overlap
- Describe and apply the scientific method
- Explain the importance of models and safety in science
- Perform calculations involving scientific notation

Lesson 1: What Is Science? (two-day lesson)

Objectives:
- Explain how science and technology are related
- List the major branches of science and describe how they overlap
- Describe the main ideas of physical science

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Lesson 2: Using a Scientific Approach (two-day lesson)

Objectives:
- Describe the steps of the scientific method
- Compare and contrast facts, scientific theories, and scientific laws
- Explain the importance of the models in science
- Explain the importance of safety in science

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Lesson 3: Measurement (two-day lesson)

Objectives:
- Perform calculations involving scientific notation and conversion factors
- Identify the metric and SI units used in science and convert between common metric prefixes
- Compare and contrast accuracy and precision
- Relate Celsius, Kelvin, and Fahrenheit temperature scales

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Lesson 4: Presenting Scientific Data (two-day lesson)

Objectives:
- Organize and analyze data using tables and graphs
- Identify the relationship between a manipulated variable and a responding variable
- Explain the importance of communicating data
- Discuss the process of peer review

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Lesson 5: VIRTUAL LAB: Introduction to Scientific Inquiry (two-day lesson)
Objectives:
• Show how the processes of scientific inquiry can help you learn about the natural world

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Lesson 6: Science Skills Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit

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Lesson 7: Science Skills Unit Test

Unit 2: Properties and States of Matter

In this first unit on chemistry, your studies will focus on the physical and chemical properties of matter. You will learn how to classify matter and how to identify physical and chemical changes in matter. By completing this unit, you will have a better understanding of the different states of matter, the gas laws, and the processes by which phase changes occur.

Objectives:
• Describe the characteristics of elements and compounds; Classify mixtures as heterogeneous or homogeneous
• Describe physical and chemical properties of matter; Describe methods used to separate mixtures
• Explain the difference between chemical and physical changes; Describe the states of matter
• Explain the behavior of solids, liquids, and gases; Explain Charles’ Law, Boyle’s Law, and the combined gas law
• Describe phase changes; Define endothermic and exothermic

Lesson 1: Classifying Matter

Objectives:
• Classify pure substances as elements or compounds
• Describe the characteristics of an element and the symbols used to identify elements
• Describe the characteristics of a compound
• Distinguish pure substances from mixtures
• Classify mixtures as heterogeneous or homogeneous
• Classify mixtures as solutions, suspensions, or colloids

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Lesson 2: Physical Properties (two-day lesson)

Objectives:
• Describe physical properties of matter
• Identify substances based on their physical properties
• Describe how properties are used to choose materials
• Describe methods used to separate mixtures
• Describe evidence that indicates a physical change is taking place

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Lesson 3: Chemical Properties (two-day lesson)

Objectives:
• Describe chemical properties of matter
• Describe clues that indicate that a chemical change is taking place
• Distinguish chemical changes from physical changes

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Lesson 4: Solids, Liquids, and Gases (two-day lesson)

Objectives:
Lesson 5: The Gas Laws (two-day lesson)

Objectives:
- Define pressure and gas pressure
- Identify factors that affect gas pressure
- Predict changes in gas pressure due to changes in temperature, volume, and number of particles
- Explain Charles’ Law, Boyle’s Law, and the combined gas law
- Apply gas laws to solve problems involving gases

Lesson 6: Phase Changes (two-day lesson)

Objectives:
- Describe phase changes
- Explain how temperature can be used to recognize a phase change
- Explain what happens to the motion, arrangement, and average kinetic energy of water molecules during phase changes
- Describe each of the six phase changes
- Identify phase changes as endothermic or exothermic

Lesson 7: VIRTUAL LAB: Changes Between a Solid and a Liquid (two-day lesson)

Objectives:
- Determine how temperature changes as ice is heated and becomes liquid water

Lesson 8: Properties and States of Matter Unit Review (two-day lesson)

Objectives:
- Review the concepts presented in the unit

Lesson 9: Properties and States of Matter Unit Test

Unit 3: Atoms, Elements, and Bonds

In this unit, you will learn how scientists’ theories and models of the atom changed over time. You will study atomic structure, focusing on atomic number, mass number, and isotopes. By completing this unit, you will be more comfortable with how elements are organized within the modern periodic table of elements. You will also have a better understanding of chemical bonds.

Objectives:
- Explain the contributions made to the atomic theory by Dalton, Thomson, and Rutherford
- Identify and compare protons, neutrons, and electrons
- Describe Bohr’s model of the atom
- Explain electron configurations
- Explain how elements are arranged in the periodic table

Lesson 1: Studying Atoms

Objectives:
- Describe ancient Greek models of matter
- List the main points of Dalton’s atomic theory and describe his evidence for the existence of atoms
• Explain how Thomson and Rutherford used data from experiments to produce their atomic models

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Lesson 2: The Structure of an Atom (two-day lesson)

Objectives:
- Identify three subatomic particles and compare their properties
- Distinguish the atomic number of an element from the mass number of an isotope, and use these numbers to describe the structure of atoms

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Lesson 3: Modern Atomic Theory

Objectives:
- Describe Bohr’s model of the atom and evidence for energy levels
- Explain how the electron cloud model represents the behavior and locations of electrons in atoms
- Distinguish the ground state from excited states of an atom based on electron configuration

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Lesson 4: Organizing the Elements

Objectives:
- Describe how Mendeleev arranged the elements in his table
- Explain how the predictions Mendeleev made and the discovery of new elements demonstrated the usefulness of his periodic table

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Lesson 5: The Modern Periodic Table (two-day lesson)

Objectives:
- Describe the arrangement of elements in the modern periodic table
- Explain how the atomic mass of an element is determined and how atomic mass units are defined
- Identify general properties of metals, nonmetals, and metalloids
- Describe how properties of elements change across a period in the periodic table

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Lesson 6: Representative Groups (two-day lesson)

Objectives:
- Relate the number of valence electrons to groups in the periodic table and to properties of elements in those groups
- Predict the reactivity of some elements based on their locations within a group
- Identify some properties of common A group elements

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Lesson 7: Ionic Bonding (two-day lesson)

Objectives:
- Recognize stable electron configurations
- Predict an element’s chemical properties using the number of valence electrons and electron dot diagrams
- Describe how an ionic bond forms and how ionization energy affects the process
- Predict the composition of an ionic compound from its chemical formula
- Relate the properties of ionic compounds to the structure of crystal lattices
Lesson 8: Covalent Bonding (two-day lesson)

Objectives:
• Describe how covalent bonds form and the attractions that keep atoms together in molecules
• Compare polar and nonpolar bonds and demonstrate how polar bonds affect the polarity of a molecule
• Compare the attractions between polar and nonpolar molecules

Lesson 9: Naming Compounds and Writing Formulas (two-day lesson)

Objectives:
• Recognize and describe binary ionic compounds, metals with multiple ions, and polyatomic ions
• Name and determine chemical formulas for ionic and molecular compounds

Lesson 10: Lab: Modeling Molecules (two-day lesson)

Objectives:
• Construct models of molecules
• Compare different types of representations of molecules
• Explain how the structural formula of a molecule can be used to help determine its bond angles

Lesson 11: Atoms, Elements, and Bonds Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit

Lesson 12: Atoms, Elements, and Bonds Unit Test

Unit 4: Chemical Reactions, Acids, and Bases

In this unit, you will study different types of chemical reactions, energy changes that occur during chemical reactions, and how to describe chemical reactions using chemical equations. You will learn about reaction rates and how to identify physical and chemical equilibrium. You will also study the physical properties of a solution and the general properties and strengths of acids and bases. By completing this unit, you will have a better understanding of changes that occur during chemical reactions.

Objectives:
• Interpret and balance chemical equations
• Explain the different types of chemical reactions
• Describe energy changes that take place during chemical reactions
• Explain endothermic and exothermic reactions
• Describe factors affecting rates of chemical reactions

Lesson 1: Describing Reactions (two-day lesson)

Objectives:
• Interpret chemical equations in terms of reactants, products, and conservation of mass
• Balance chemical equations by manipulating coefficients
• Convert between moles and mass of a substance using molar mass
• Calculate amounts of reactants or products by using molar mass, mole ratios, and balanced chemical equations

Lesson 2: Types of Reactions
Objectives:
- Classify chemical reactions as synthesis, decomposition, single-replacement, double-replacement, or combustion reactions
- Describe oxidation-reduction reactions, and relate them to other classifications of chemical reactions

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Lesson 3: Lab Investigator: Chemical Reactions

Lesson 4: Energy Changes in Reactions (two-day lesson)

Objectives:
- Describe the energy changes that take place during chemical reactions
- Classify chemical reactions as exothermic or endothermic
- Explain how energy is conserved during chemical reactions

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Lesson 5: Reaction Rates (two-day lesson)

Objectives:
- Explain what a reaction rate is
- Describe the factors affecting chemical reaction rates

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Lesson 6: Equilibrium

Objectives:
- Identify and describe physical and chemical equilibrium
- Describe the factors affecting chemical equilibrium

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Lesson 7: LAB: Classifying Reactions (two-day lesson)

Objectives:
- Identify different types of chemical reactions
- Predict the products of reactions
- Understand and balance chemical equations

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Lesson 8: Formation of Solutions

Objectives:
- Describe how a substance can dissolve in water by dissociation, dispersion, or ionization
- Describe how the physical properties of a solution can differ from those of its solute and solvent
- Identify energy changes that occur during the formation of a solution
- Describe factors affecting the rate at which a solute dissolves in a solvent

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Lesson 9: Solubility and Concentration (two-day lesson)

Objectives:
- Define solubility and describe factors affecting solubility
- Classify solutions as unsaturated, saturated, or supersaturated
- Calculate and compare and contrast solution concentrations expressed as percent by volume, percent by mass, and molarity

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Lesson 10: Properties of Acids and Bases (two-day lesson)

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Objectives:
• Define acid and describe some of the general properties of an acid
• Define base and define some of the general properties of a base
• Identify a neutralization reaction, and describe the reactants and products of neutralization
• Explain how acids and bases can be defined as proton donors and proton acceptors

Lesson 11: Strength of Acids and Bases

Objectives:
• Strength of Acids and Bases
• Distinguish between strong acids and weak acids, and between strong bases and weak bases
• Define buffer and describe how a buffer can be prepared
• Explain how electrolytes can be classified

Lesson 12: Chemical Reactions, Acids, and Bases Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in the unit

Lesson 13: Chemical Reactions, Acids, and Bases Unit Test

Unit 5: Nuclear Chemistry
In this unit, you will learn about nuclear chemistry—the study of the processes that take place within an atom's nucleus. You will focus on the decay processes of a radioactive substance, half-life, radiocarbon dating, and artificial transmutation. You will also study nuclear fission and nuclear fusion; by completing this unit, you will be able to recognize the conditions that are required for these nuclear processes to occur.

Objectives:
• Describe the process of nuclear decay
• Classify nuclear radiation
• Define half-life and explain how nuclear reactions are different from chemical reactions
• Explain transmutation
• Define fission and fusion and explain how nuclear reactors are used to produce energy

Lesson 1: Radioactivity (two-day lesson)

Objectives:
• Describe the process of nuclear decay
• Classify nuclear radiation as alpha particles, beta particles, or gamma rays
• Balance nuclear equations
• Identify sources of nuclear radiation and describe how nuclear radiation affects matter
• Describe methods of detecting nuclear radiation

Lesson 2: Lab: The Properties of Alpha and Beta Particles (two-day lesson)

Objectives:
• Investigate the differences in charge and mass of alpha and beta particles

Lesson 3: Rates of Nuclear Decay (two-day lesson)
Objectives:
• Define half-life and relate half-life to the age of a radioactive sample
• Compare and contrast nuclear reaction rates with chemical reaction rates
• Describe how radioisotopes are used to estimate the age of materials

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Lesson 4: Artificial Transmutation (two-day lesson)

Objectives:
• Describe and identify examples of transmutation
• Describe how transuranium elements are synthesized
• Explain how particle accelerators have been used in scientific research

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Lesson 5: Fission and Fusion (two-day lesson)

Objectives:
• Compare and contrast nuclear forces
• Describe the process of nuclear fission
• Explain how nuclear reactors are used to produce energy
• Describe the process of nuclear fusion

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Lesson 6: Nuclear Chemistry Unit Review (two-day lesson)

Objectives:
• Review the concepts presented in this unit

Lesson 7: Nuclear Chemistry Unit Test

Unit 6: Physical Science A Review and Exam

In this unit, you will prepare for and take the final exam. The exam may include any material that has been presented throughout the semester. Since the final exam is comprehensive, it may be helpful to organize your notes and answers to section and chapter assessments before you begin to review.

Objectives:
• Identify strategies that will help you prepare for the final exam
• Organize your time and study materials
• Review your notes, answers to lesson questions and assessments, and essential vocabulary terms

Lesson 1: Physical Science A Exam Review (two-day lesson)

Objectives:
• Review concepts presented throughout the course

Lesson 2: Physical Science A Exam
PHYSICAL SCIENCE B
Physical Science B

This is the second of two courses that comprise Physical Science. The course is designed to provide the student with an understanding of essential physics and earth science concepts. The physics-focused lessons cover motion, force, work, power, energy, wave mechanics, electricity, magnetism, and the electromagnetic spectrum. Earth science topics include an exploration of the Earth, sun, and planets. Physical Science B includes hands-on explorations and virtual simulations to enhance the student's comprehension of key concepts.

Unit 1: Forces and Motion

In this unit, you will study forces and motion. Your studies will focus on distance, displacement, speed, velocity, and acceleration—moving on to balanced and unbalanced forces, momentum, and universal forces. You will examine Newton's three laws of motion as well as Pascal's principle and Bernoulli's principle. You will also learn how to calculate pressure and what effects buoyancy has on the apparent weight of an object.

Objectives:
- Identify SI units for measuring distances and speed
- Calculate displacement, speed, and acceleration
- Interpret distance-time and speed-time graphs
- Compare and contrast the four kinds of friction
- Describe Newton's three laws of motion and the law of universal gravitation

Lesson 1: Distance and Displacement

Objectives:
- Identify frames of reference and describe how they are used to measure motion
- Identify appropriate SI units for measuring distances
- Distinguish between distance and displacement
- Calculate displacement using vector addition

Lesson 2: Speed and Velocity

Objectives:
- Identify appropriate SI units for speed
- Compare and contrast average speed and instantaneous speed
- Interpret distance/time graphs
- Calculate speed of an object using slopes
- Describe how velocities combine

Lesson 3: Acceleration

Objectives:
- Identify changes in motion that produce acceleration
- Describe examples of constant acceleration
- Calculate the acceleration of an object
- Interpret speed-time and distance-time graphs
- Classify acceleration as positive or negative
- Describe instantaneous acceleration

Lesson 4: Forces

Objectives:
- Describe examples of force and identify appropriate SI units to measure force
- Explain how the motion of an object is affected when balanced and unbalanced forces act on it
- Compare and contrast the four kinds of friction
- Describe how Earth's gravity and air resistance affect falling objects
• Describe the path of a projectile and identify the forces that produce projectile motion

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Lesson 5: Newton’s First and Second Laws of Motion

Objectives:
• Describe Newton’s first law of motion and its relation to inertia
• Describe Newton’s second law of motion and use it to calculate acceleration, force, and mass values
• Relate the mass of an object to its weight

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Lesson 6: Newton’s Third Law of Motion and Momentum

Objectives:
• Explain how action and reaction forces are related according to Newton’s third law of motion
• Calculate the momentum of an object and describe what happens when momentum is conserved during a collision

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Lesson 7: Virtual Momentum Lab (two-day lesson)

Objectives:
• Analyze perfectly elastic and perfectly inelastic collisions
• Calculate momentum
• Explore the law of conservation of momentum

Lesson 8: Universal Forces (two-day lesson)

Objectives:
• Identify the forms of electromagnetic force that can both attract and repel
• Identify and describe the universal forces acting within the nucleus
• Define Newton’s law of universal gravitation and describe the factors affecting gravitational force
• Describe centripetal force and the type of motion it produces

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Lesson 9: Fluid Pressure

Objectives:
• Describe and calculate pressure
• Identify appropriate SI units for measuring pressure
• Describe the relationship between water depth and the pressure it exerts
• Describe how forces from pressure are distributed at a given level in a fluid
• Explain how altitude affects air pressure

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Lesson 10: Forces and Pressure in Fluids

Objectives:
• Describe how pressure is transmitted in a fluid according to Pascal’s principle
• Explain how a hydraulic system works to change a force
• Explain how the speed and pressure of a fluid are related according to Bernoulli’s principle

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Lesson 11: Buoyancy
Objectives:
- Explain the effect of buoyancy on the apparent weight of an object
- Explain the relationship between the volume of fluid displaced by an object and buoyant force acting on the object according to Archimedes' principle
- Describe the relationship among object density, fluid density, and whether an object sinks or floats in a fluid
- Describe the relationship among object weight, buoyant force, and whether an object sinks or floats in a fluid

Lesson 12: Forces and Motion Review (two-day lesson)

Objectives:
- Review concepts covered in this unit

Lesson 13: Forces and Motion Unit Test

Unit 2: Work and Energy

In this unit, you will study work, power, machines, and energy. You will begin by learning how to calculate work and power; later on, you will learn how to calculate mechanical advantage and efficiency. You will study the six types of simple machines and learn how to identify compound machines. You will learn about heat, temperature, and thermal energy, and you will study conductors, insulators, and the laws of thermodynamics in order to better understand heat and how it can be used.

Objectives:
- Describe and calculate work and power
- Explain how machines make work easier to do
- Compare actual mechanical advantage to ideal mechanical advantage
- Calculate a machine's efficiency
- Give an example of the six types of simple machines

Lesson 1: Work and Power

Objectives:
- Describe the conditions that must exist for a force to do work on an object
- Calculate the work done on an object
- Describe and calculate power
- Compare the units of watts and horsepower as they relate to power

Lesson 2: Work and Machines

Objectives:
- Describe what a machine is and how it makes work easier to do
- Relate the work input to a machine to the work output of the machine

Lesson 3: Mechanical Advantage and Efficiency

Objectives:
- Compare a machine's actual mechanical advantage to its ideal mechanical advantage
- Calculate the ideal and actual mechanical advantage of various machines
- Explain why the efficiency of a machine is always less than 100%
- Calculate a machine's efficiency

Lesson 4: Simple Machines (two-day lesson)

Objectives:
Lesson 5: Energy and Its Forms (two-day lesson)

Objectives:
- Describe the relationship between work and energy
- Relate kinetic energy to mass and speed and calculate these quantities
- Analyze how potential energy is related to an object’s position and give examples of gravitational and elastic potential power
- Solve equations that relate an object’s gravitational potential energy to its mass and height
- Give examples of the major forms of energy and explain how each is produced

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Lesson 6: Lab: A Roller Coaster’s Potential & Kinetic Energy (two-day lesson)

Objectives:
- Construct a structurally sound model of a roller coaster
- Calculate potential energy and kinetic energy
- Relate the principle of conservation of energy in an analysis of a roller coaster

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Lesson 7: Energy Conversion and Conservation

Objectives:
- Describe conversions of energy from one form to another
- State and apply the law of conservation of energy
- Analyze how energy is conserved in conversions between kinetic energy and potential energy and solve equations that equate initial energy to final energy
- Describe the relationship between energy and mass and calculate how much energy is equivalent to a given mass

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Lesson 8: Energy Resources

Objectives:
- Classify energy resources as renewable or nonrenewable
- Evaluate benefits and drawbacks of different energy sources
- Describe ways to conserve energy resources

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Lesson 9: Thermal Energy and Matter (two-day lesson)

Objectives:
- Explain how heat and work transfer energy
- Relate thermal energy to the motion of particles that make up a material
- Relate temperature to thermal energy and to thermal expansion
- Calculate thermal energy, temperature change, or mass using the specific heat equation
- Describe how a calorimeter operates and calculate thermal energy changes or specific heat using calorimetry measurements

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Lesson 10: Heat and Thermodynamics
Objectives:
• Describe conduction, convection, and radiation and identify which of these is occurring in a given situation
• Classify materials as thermal conductors or thermal insulators
• Apply the law of conservation of energy to conversions between thermal energy and other forms of energy
• Apply the second law of thermodynamics in situations where thermal energy moves from cooler to warmer objects
• State the third law of thermodynamics

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Lesson 11: Using Heat

Objectives:
• Describe heat engines and explain how heat engines convert thermal energy into mechanical energy
• Describe how the different types of heating systems operate
• Describe how cooling systems, such as refrigerators and air conditioners, operate
• Evaluate benefits and drawbacks of different heating and cooling systems

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Lesson 12: Work and Energy Unit Review (two-day lesson)

Objectives:
• Review concepts covered in this unit

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Lesson 13: Work and Energy Unit Exam

Unit 3: Waves

In this unit, you will study the properties and behavior of waves. You will learn about different types of mechanical waves and examine how waves are affected by reflection and refraction. You will learn how sound is produced and how the ear is able to detect sound. As you study the electromagnetic spectrum, you will focus on the characteristics of electromagnetic waves and how different waves of the electromagnetic spectrum are used. You will study how light behaves, how light is produced, and how color is determined.

Objectives:
• Define mechanical waves and explain how transverse, longitudinal, and surface waves are produced
• Define frequency, period, wavelength, and wave speed
• Relate amplitude to a wave's energy
• Explain reflection, refraction, diffraction, and interference
• Explain how sound waves are produced and how the human ear detects sound

Lesson 1: Mechanical Waves

Objectives:
• Define mechanical waves and relate waves to energy
• Describe transverse, longitudinal, and surface waves and discuss how they are produced
• Identify examples of transverse and longitudinal waves
• Analyze the motion of a medium as each kind of mechanical wave passes through it

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Lesson 2: Properties of Mechanical Waves (two-day lesson)

Objectives:
• Define frequency, period, wavelength, and wave speed and describe these properties for different kinds of waves
• Solve equations relating wave speed to wavelength and frequency or period

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Lesson 3: Behavior of Waves

Objectives:
- Describe how reflection, refraction, diffraction, and interference affect waves
- State a rule that explains refraction of a wave as it passes from one medium to another
- Identify factors that affect the amount of refraction, diffraction, or interference
- Distinguish between constructive and destructive interference and explain how standing waves form

Lesson 4: Sound and Hearing (two-day lesson)

Objectives:
- Describe the properties of sound waves and explain how sound is produced and reproduced
- Describe how sound waves behave in applications such as ultrasound and music
- Explain how relative motion determines the frequency of sound an observer hears
- Analyze the functions of the main regions of the human ear

Lesson 5: Lab: Investigating Sound Waves (two-day lesson)

Objectives:
- Define sound as a mechanical vibration whose frequency depends on the length of the vibrating object
- State that pitch depends on the frequency and that loudness depends on the amplitude of the sound wave

Lesson 6: Electromagnetic Waves (two-day lesson)

Objectives:
- Describe the characteristics of electromagnetic waves in a vacuum and how Michelson measures the speed of light
- Calculate the wavelength and frequency of an electromagnetic wave given its speed
- Describe the evidence for the dual nature of electromagnetic radiation
- Describe how the intensity of light changes with distance from a light source

Lesson 7: The Electromagnetic Spectrum

Objectives:
- Rank and classify electromagnetic waves based on their frequencies and wavelengths
- Describe the uses for different waves of the electromagnetic spectrum

Lesson 8: Behavior of Light (two-day lesson)

Objectives:
- Classify materials as transparent, translucent, or opaque to visible light
Lesson 9: Color

Objectives:
• Explain how a prism disperses white light into different colors
• Analyze factors that determine the color of an object
• Distinguish among primary, secondary, and complementary colors of light and of pigments

Lesson 10: Sources of Light

Objectives:
• Explain how light is produced by common sources of light
• Describe the uses of different light sources
• Distinguish lasers from other light sources

Lesson 11: Unit Review (two-day lesson)

Objectives:
• Review concepts covered in this unit

Lesson 12: Unit Test

Unit 4: Electricity and Magnetism

In this unit, you will study electricity and magnetism. You will primarily focus on electric charge, current, and circuits; however, you will also learn about common electronic devices and how they work. You will identify the two types of electric current and you will study circuit diagrams for series and parallel circuits. In the latter part of the unit, you will study magnets, magnetic fields and how electromagnets work. By completing this unit, you will have a better understanding of how electricity and magnetism are related.

Objectives:
• Explain how electric forces and fields affect electric charges
• Describe electric current
• Explain Ohm's law
• Interpret diagrams for series and parallel circuits
• Describe different types of electronic devices and how they convey information

Lesson 1: Electric Charge and Static Electricity

Objectives:
• Analyze factors that affect the strength and direction of electric forces and fields
• Describe how electric forces and fields affect electric charges
• Describe how electric charges are transferred and explain why electric discharges occur

Lesson 2: Electric Current and Ohm's Law

Objectives:
• Describe electric current and identify the two types of current
• Describe conduction and classify materials as either good electrical conductors or good electric insulators
• Describe the factors that affect resistance
• Explain how voltage produces electric current
• Calculate voltage, current, and resistance using Ohm's law
Lesson 3: Electric Circuits and Safety Devices (two-day lesson)

Objectives:
- Analyze circuit diagrams for series circuits and parallel circuits
- Solve equations that relate electric power to current, voltage, and electrical energy
- Describe devices and procedures for maintaining electrical safety

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Lesson 4: Electronic Devices

Objectives:
- Explain how electronics convey information with analog or digital signals
- Describe electronic devices used to control electron flow
- Illustrate how semiconductors are used to make three kinds of solid-state components
- Describe how solid-state components are used in electronic devices

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Lesson 5: Lab: Building Electrical Circuits (two-day lesson)

Objectives:
- Construct series and parallel circuits and measure the voltage and current through each

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Lesson 6: Magnets and Magnetic Fields

Objectives:
- Describe the effects of magnetic forces and magnetic fields and explain how magnetic poles determine the direction of magnetic force
- Interpret diagrams of magnetic field lines around one or more bar magnets
- Describe Earth's magnetic field and its effect on compasses
- Explain the behavior of ferromagnetic materials in terms of magnetic domains

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Lesson 7: Electromagnetism (two-day lesson)

Objectives:
- Describe how a moving electric charge creates a magnetic field and determine the direction of the magnetic field based on the type of charge and the direction of its motion
- Relate the force a magnetic field exerts on a moving electric charge to the type of charge and direction of its motion
- Explain how solenoids and electromagnets are constructed and describe factors that affect the field strength of both
- Describe how electromagnetic devices use the interaction between electric currents and magnetic fields

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Lesson 8: Electrical Energy Generation and Transmission

Objectives:
- Describe how electric current is generated by electromagnetic induction
- Compare AC and DC generators and explain how they work
- Analyze factors that determine the output voltage and current produced by a transformer
- Summarize how electrical energy is produced, transmitted, and converted for use in the home

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Lesson 9: Electricity and Magnetism Unit Review (two-day lesson)

Objectives:
- Review concepts covered in this unit

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Lesson 10: Electricity and Magnetism Unit Test

Unit 5: Earth in the Universe

In this unit, you will explore various aspects of the solar system, including the different models of the solar system, the Earth-moon system, the eight planets, and the origin of the solar system. You will also study the sun and stars. By completing this unit, you will have a better understanding of how the sun produces energy for the solar system and how stars form.

Objectives:
- Define the geocentric and heliocentric models of the solar system
- Identify the components of the solar system
- Explain what the moon’s surface looks like
- Explain why the moon has phases and why tides occur
- Identify and compare the terrestrial planets and gas giants

Lesson 1: Exploring the Solar System

Objectives:
- Compare and contrast the geocentric and heliocentric models of the solar system
- Describe the orbits of the planets around the sun and explain how gravity and inertia keep the planets in orbit
- Name the components of the solar system
- Identify different technologies used for exploring the solar system

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Lesson 2: The Earth-Moon System

Objectives:
- Explain why the moon lacks an atmosphere and the effect this has on the range of temperatures on the moon
- Describe the features of the moon’s surface
- State a theory about the formation of the moon
- Explain why phases of the moon, eclipses, and tides occur and interpret diagrams of the relative positions of the sun, moon, and Earth during these events

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Lesson 3: Inner Solar System

Objectives:
- Compare the terrestrial planets and describe characteristics of each
- Define asteroids and state alternative hypotheses about how they formed

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Lesson 4: Outer Solar System (two-day lesson)

Objectives:
- Compare the gas giants and describe characteristics of each
- Distinguish between planets and dwarf planets
- Distinguish between comets and meteoroids and describe their characteristics
- Locate and describe the Kuiper belt and the Oort cloud

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Lesson 5: Lab: Measuring Orbital Speed of the Planets (two-day lesson)

Objectives:
- Determine how fast Earth and the other planets are moving

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Lesson 6: The Origin of the Solar System

Objectives:
- State the nebular theory
- Relate the nebular theory to the orbits, composition, and size of the planets

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Lesson 7: The Sun

Objectives:
- Describe how the sun produces energy
- Explain why the sun remains stable over time
- Diagram and describe the interior structure and atmospheric features of the sun

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Lesson 8: Stars (two-day lesson)

Objectives:
- Demonstrate how distance to a star is measured
- Classify stars according to chemical and physical properties
- Interpret the H-R diagram

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Lesson 9: Life Cycle of Stars

Objectives:
- Describe how stars form
- Estimate how long a star remains on the main sequence
- Predict what happens to a star when it runs out of fuel

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Lesson 10: Earth in the Universe Unit Review (two-day lesson)

Lesson 11: Earth in the Universe Unit Test

Unit 6: Semester Exam and Review

In this unit, you will prepare for and take the final exam. The exam may include any material that has been presented throughout the semester. Since the final exam is comprehensive, it may be helpful to organize your notes and answers to section and chapter assessments before you begin to review.

Objectives:
- Identify strategies that will help you prepare for the final exam
- Organize your time and study materials
- Review your notes, answers to lesson questions and assessments, and essential vocabulary terms

Lesson 1: Physical Science Semester B Review (two-day lesson)

Objectives:
- Review the concepts presented throughout the course

Lesson 2: Physical Science Semester B Exam
APPENDIX A
CURRICULUM

A.2 COURSE GUIDES

d. SOCIAL STUDIES
This document is part of Appendix A: Curriculum.

It includes course guides for each Social Studies class for students in Kindergarten through Grade 12.

- Social Studies K A
- Social Studies K B
- Social Studies 1 A
- Social Studies 1 B
- Social Studies 2 A
- Social Studies 2 B
- Social Studies 3 A
- Social Studies 3 B
- Social Studies 4 A
- Social Studies 4 B
- Pennsylvania State History 4
- Social Studies 5 A
- Social Studies 5 B
- Social Studies 6 A
- Social Studies 6 B
- Social Studies 7 A
- Social Studies 7 B
- Social Studies 8 A
- Social Studies 8 B
- US History A
- US History B
- World History A
- World History B
- American Government A
- American Government B
- Economics
- Geography & Society

Course guides provide detailed information on the curriculum including course descriptions, unit summaries, lesson objectives, activities, and assessment types. Course guides include information on:

- Planned instruction (provided in the unit summary of each unit within individual Course Guides)
- Course objectives (provided in the unit and lesson objectives within individual Course Guides)
- Activities (provided in the unit summary and lesson objectives of each unit within individual Course Guides)
SOCIAL STUDIES K A
Social Studies KA

Students learn the concepts of community, nation, and world in this course. They answer essential questions including: "How do people get what they need?"; "How is culture shared?"; and "How does life change throughout history?" A combination of interactive and hands-on exercises teaches students about personal responsibility, good citizenship, and basic geography. While learning about America’s past and important historical figures, students research their personal history and heroes.

Unit 1: My Family, My School

This unit will introduce your student to the role of a good citizen and the importance of cooperating with others, being responsible and truthful, following rules and laws to stay safe, and using good manners to be respectful of others. Your student will distinguish between problems and solutions, exploring how to make decisions and solve problems that are fair, respectful, and that adhere to rules and laws. The unit makes distinctions between the home and the community, considering both the rights and responsibilities of citizens and the types of leaders in both settings. Your student will explore forms of patriotism, the nation’s symbols and monuments, and the role of government in creating laws. At the conclusion of this unit, your student should be able to explain why citizens must cooperate and be respectful of each other. He will evaluate a series of problems and brainstorm original ideas for solving them as a good citizen.

Objectives:
- Describe how people cooperate when they make decisions and work together to get a job done
- Explain that people are good citizens when they follow rules and laws
- Show how people cooperate, share ideas, listen to others, and interact positively with many different people, such as family, friends, and classmates
- Explain that U.S. symbols and monuments stand for and remind us of our country

Lesson 1: How Do People Best Cooperate? (two-day lesson)

Objectives:
- Define and describe cooperation
- Identify how you have cooperated in the past
- Identify examples of cooperation

Lesson 2: What Makes a Good Citizen?

Objectives:
- Explain that a good citizen takes turns, tells the truth, cooperates, takes part in patriotic activities, and respects others

Lesson 3: What Are Rights? What Are Responsibilities?

Objectives:
- Describe roles and responsibilities we have with our family at home and in the community
- Identify personal rights, such as the right to food, clothing, and shelter, and the right to go to school

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Lesson 4: How Do We Get Along with Others?

Objectives:
- Explain how cooperating with others and being respectful is part of being a good citizen
- Distinguish between problems and solutions
- Identify solutions for problems

Lesson 5: How Do We Find Main Ideas and Supporting Details?

Objectives:
- Identify the main idea and retell key details

Lesson 6: What Rules Do We Follow? (two-day lesson)
Objectives:
• Explain why good citizens follow rules and laws
• Describe rules at home and in the community
• Identify the sequence of events, characters, and setting in a story about rules

Lesson 7: Who Are Our Leaders? (two-day lesson)
Objectives:
• Identify leaders at home and in the community
• Explain how leaders help people

Lesson 8: How Do We Make Decisions? (two-day lesson)
Objectives:
• Describe how a person makes decisions and weighs consequences
• Explain that groups make decisions by discussing and voting on choices
• Make decisions about example problems

Lesson 9: How Do We Solve Problems as Good Citizens?
Objectives:
• Propose solutions to problems that are fair and consistent with good citizenship

Lesson 10: What Are Our Country’s Symbols? (two-day lesson)
Objectives:
• Identify important symbols that stand for our country
• Describe why we have symbols

Lesson 11: What Are Our Country’s Monuments?
Objectives:
• Identify why U.S. monuments and buildings are important
• Identify where the President of the United States lives and works

Lesson 12: My Family, My School Unit Test
Objectives:
• Describe how people cooperate when they make decisions and work together to get a job done
• Explain that people are good citizens when they follow rules and laws
• Show how people cooperate, share ideas, listen to others, and interact positively with many different people, such as family, friends, and classmates
• Explain that U.S. symbols and monuments stand for and remind us of our country

Unit 2: Everybody Works
This unit will introduce your student to the basic economic fundamentals of wants and needs and how to meet them, making choices when there is scarcity. Your student will focus on different types of jobs, the tools that workers use, various job locations, and how people choose the right job to earn money and provide for their wants and needs. Some jobs provide goods while others provide services, and your student will distinguish between these types of work. Your student will also explore the bills and coins in our currency and use them to buy, sell, or trade, making choices about what needs and wants to satisfy based on a budget, considering how saving could improve purchasing power in the future, and exploring how scarcity impacts the pricing of goods and services. At the end of this unit, your student will participate in a buy, sell, and trade simulation and should be able to explain how people get what they need.

Objectives:
• Explain why people make choices about needs and wants
Lesson 1: How Do People Get What They Need? (two-day lesson)

Objectives:
• Explain that people have jobs to get the things that they need

Lesson 2: What Do We Need? What Do We Want?

Objectives:
• Distinguish between needs and wants

Lesson 3: How Do We Get What We Need or Want? (two-day lesson)

Objectives:
• Recognize that people work to earn money to buy things they need or want
• Explain that people buy, sell, and trade to get what they want or need

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Lesson 4: How Do We Use Money? (two-day lesson)

Objectives:
• Recognize that United States currency comes in different forms
• Recognize that people work to earn money to buy things they need or want

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Lesson 5: How Do Good Citizens Speak and Listen to Others?

Objectives:
• Speak to others using a clear voice and eye contact
• Listen politely and attentively as a good citizen when others speak

Lesson 6: What Are Jobs That People Do? (two-day lesson)

Objectives:
• Describe jobs that people do and the tools that they need to work
• Explain that people work to earn money to pay for things that they want and need

Lesson 7: How Do We Compare and Contrast Two Things?

Objectives:
• Compare and contrast different jobs and their tools

Lesson 8: Why Do We Make Choices?

Objectives:
• Recognize that there is a limit to money and goods
• Explain that people must make choices because they cannot have everything they want

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Lesson 9: What Are Goods and Services?

Objectives:
• Distinguish between goods and services

Lesson 10: How Do We Buy, Sell, and Trade?

Objectives:
• Act out buying, selling, and trading
• Discuss choices made when buying, selling, and trading
Lesson 11: Everybody Works Unit Test

Objectives:
• Explain why people make choices about needs and wants.
• Describe how people do many kinds of work making goods or providing services.
• Infer that people buy things because they cannot make everything themselves.
• Explain that people sell things because others want to buy them.

Unit 3: Where We Live

This unit will address concepts about where your student lives. Your student will consider his exact address and how maps and globes represent this address, neighborhoods, and other landforms and bodies of water. He will use cardinal directions and positional words to describe objects’ relative locations on maps and globes, and he will classify common map representations, like land and water, into categories. At the end of this unit, your student should be able to describe where he lives and how to use a map to understand his neighborhood or the land and water around him.

Objectives:
• Explain how maps and globes are simple representations of places on Earth
• Identify that the world is made up of landforms and bodies of water
• Describe how the weather and seasons affect what people wear and do
• Describe how physical features are located in specific places and how words can be used to describe the locations of human and physical features
• Identify that people use the world’s natural resources to satisfy basic needs

Lesson 1: What Is the World Like? (two-day lesson)

Objectives:
• Explain that the place where a person or animal lives affects how he/it lives

Lesson 2: Where Do We Live? (two-day lesson)

Objectives:
• Identify your address
• Describe places in your neighborhood and community

Lesson 3: Where Are Places Located?

Objectives:
• Describe the relative location of people, places, and things by using positional words
• Use directions and positional words to describe the locations of one place relative to another
• Locate and describe places in the school and in the community

Lesson 4: What Do Maps Show? (two-day lesson)

Objectives:
• Explain that maps are simple, pictorial representations of large and small places on Earth
• Explain that maps help to locate different places
• Locate and distinguish between land and water on maps
• Identify physical and human characteristics of a place on a map
• Identify map symbols

Lesson 5: What Are Cardinal Directions?

Objectives:
• Identify cardinal directions
Lesson 6: What Are Landforms?

Objectives:
- Identify basic landforms on a map and in images

Lesson 7: What Are Bodies of Water?

Objectives:
- Identify basic bodies of water (oceans, rivers, lakes)
- Differentiate between land and water on a map

Lesson 8: What Do Globes Show?

Objectives:
- Explain that a globe helps to locate different places and is a model of the Earth
- Differentiate land and water features on globes

Lesson 9: Where We Live Unit Test

Objectives:
- Explain how maps and globes are simple representations of places on Earth
- Identify that the world is made up of landforms and bodies of water
SOCIAL STUDIES K B
**Social Studies K B**

Students learn the concepts of community, nation, and world in this course. They answer essential questions including: "How do people get what they need?"; "How is culture shared?"; and "How does life change throughout history?" A combination of interactive and hands-on exercises teaches students about personal responsibility, good citizenship, and basic geography. While learning about America’s past and important historical figures, students research their personal history and heroes.

**Unit 1: More Where We Live**

This unit addresses concepts about where your student lives. Your student will explore the four seasons and types of weather in terms of how they affect what people wear and how they behave. Earth is full of natural resources that people use to meet their needs. Your student will learn to differentiate man-made from natural resources and consider how the location of physical features and natural resources affect where people live and work. Your student will complete a culminating activity linking seasons, weather, physical features of Earth, and resources that people need in those scenarios. At the end of this unit, your student should be able to recognize how features of weather and resources affect the way he behaves.

Objectives:
- Describe how the weather and seasons affect what people wear and do
- Describe how physical features are located in specific places
- Identify how people use the world’s natural resources to satisfy basic needs

**Lesson 1: What Is Weather Like? (two-day lesson)**

Objectives:
- Identify weather as a physical characteristic of a place
- Describe daily weather and its effects on people and places

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**Lesson 2: What Are the Seasons?**

Objectives:
- Identify the four seasons
- Describe patterns of weather and the effects on people and places
- Describe how seasonal changes affect people

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**Lesson 3: How Do We Identify Cause and Effect? (two-day lesson)**

Objectives:
- Identify how weather and landforms/bodies of water affect the way that people live in their communities

**Lesson 4: How Do We Use Earth’s Resources? (two-day lesson)**

Objectives:
- Describe how human and physical characteristics of a place affect how and where people live
- Identify ways people use natural resources to satisfy basic needs
- Identify human-made and natural resources

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**Lesson 5: How Does Our Environment Affect Us?**

Objectives:
- Explain how the weather and Earth’s natural resources affect our behavior

**Lesson 6: More Where We Live Unit Test**

Objectives:
- Describe how the weather and seasons affect what people wear and do
• Describe how physical features are located in specific places and how words can be used to describe the locations of human and physical features
• Identify that people use the world’s natural resources to satisfy basic needs

Unit 2: Our Traditions

This unit will introduce your student to the diversity among cultures around the world. Your student will define culture and recognize its impact on groups of people and its many forms such as dress, music, traditions, and celebrations. During this course, your student will recognize that people, families, communities, and cultures can be alike and different, and that people must respect each other’s differences. Your student will explore family celebrations as well as a selection of important American holidays and folk heroes. She will complete a culminating activity that will explore a familiar holiday and its importance in greater depth. At the conclusion of this unit, your student will be able to explain the value of other cultures and how her own culture may differ from other cultures around the world.

Objectives:

• Recognize that people are alike and different
• Explain that people celebrate in many ways
• Recognize that we learn about our country through stories and holidays
• Explain that we are all part of a culture
• Describe that there are many different cultures around the world

Lesson 1: What Are Your Family Traditions? (two-day lesson)

Objectives:

• Explain that you learn about your family, neighborhood, and country through stories and holidays
• Contrast ways that people celebrate

Lesson 2: How Are People Alike and Different?

Objectives:

• Explain that people have both similarities and differences
• Identify ways in which people are alike and different

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Lesson 3: How Do We Classify Objects into Categories?

Objectives:

• Classify types of communities where different people live

Lesson 4: How Are Families Alike and Different?

Objectives:

• Describe how individuals and families grow and change
• Recognize nontraditional families

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Lesson 5: What Is Culture? (two-day lesson)

Objectives:

• Recognize that there are many different cultures
• Describe how culture is shared through art, music, customs, traditions, family celebrations, and language

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Lesson 6: How Do We Celebrate? (two-day lesson)

Objectives:

• Identify celebrations as ways to show how we feel about special people and events
• Explain that people celebrate in different ways

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Lesson 7: What Are National Holidays? (two-day lesson)

Objectives:
• Explain that we celebrate special days to remember and honor people and events from our nation's past
• Compare our nation's holidays with holidays of other cultures

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Lesson 8: Who Are American Folk Heroes? (two-day lesson)

Objectives:
• Recognize that stories about folk heroes and legends convey traditions and values about America's past
• Distinguish fact from fiction in American folk tales

Unit 3: Life Then and Now

This unit will introduce your student to the importance of history and how we learn about it. People, families, schools, communities, and countries all have a history that we can study through books, stories, computers, and primary sources such as photographs. History follows a chronological order that we can measure and describe using sequencing words and timelines. We can learn valuable lessons from history, especially by studying the courageous lives and actions of American heroes. In this unit, your student will learn about change and continuity over time and how individuals play important roles in history. The culminating activity will challenge your student to create a personal timeline of important events over his life.

Objectives:
• Explain that things change over time
• Recognize that time can be measured
• Explain that history is the story of our past
• Identify that we learn about history from primary and secondary sources

Lesson 1: How Does Life Change Throughout History? (two-day lesson)

Objectives:
• Recognize that history describes the past
• Explain that we can learn about history from books, computers, museums, and people

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Lesson 2: What Is My Personal History?

Objectives:
Explain that every person has a history

Lesson 3: How Do We Order Events In History?

Objectives:
• Describe events of their day using sequence words
• Arrange pictures and events in sequence
• Use sequence words such as first, next, and last

Lesson 4: How Do We Talk About Time?

Objectives:
• Describe daily events in time order
• Use words related to time and chronology, such as before, after, and now, to describe events of the school day in time order

Lesson 5: How Do We Measure Time?

Objectives:
• Recognize that time can be measured
• Identify that time can be measured in days, weeks, months, and years
• Explain that calendars represent days of the week and months of the year
• Use terms related to time

Lesson 6: What Is A Timeline? (two-day lesson)

Objectives:
• Recognize that change occurs over time
• Explain what a timeline shows
• Describe how to place key events on a timeline
• Explain how to read timelines

Lesson 7: How Can We Learn About History?

Objectives:
• Describe ways people learn about the past
• Identify ways we can learn about history
• Compare information from different types of sources
• Develop an awareness of a primary source

Lesson 8: How Do We Use Illustrations?

Objectives:
• Use photographs to make predictions
• Match photographs to text content

Lesson 9: Who Are American Heroes from the Past? (two-day lesson)

Objectives:
• Identify important people in U.S. history and their contributions
• Describe actions of important individuals and how their actions affected the nation

Lesson 10: How Have Families Changed? (two-day lesson)
Lesson 11: How Has School Changed? (two-day lesson)

Objectives:
- Describe how school today is the same as and different from school in the past
- Compare photographs of schools today and schools in the past

Lesson 12: How Have Communities Changed?

Objectives:
- Describe people and places in the school and in the community
- Examine photographs of communities today and in the past and summarize changes

Lesson 13: How Has Technology Changed? (two-day lesson)

Objectives:
- Explain how technology meets people’s needs
- Identify ways we use tools and technology today
- Identify ways everyday life has both changed and remained the same

Lesson 14: How Do I Create My Personal Timeline? (two-day lesson)

Objectives:
- Create a timeline to represent important events from the student’s personal history

Lesson 15: Life Then and Now Unit Test

Objectives:
- Explain that things change over time
- Recognize that time can be measured
- Explain that history is the story of our past
- Identify that we learn about history from primary and secondary sources
SOCIAL STUDIES 1 A
Social Studies 1 A

Social Studies 1 A focuses on how people in communities work together for the common good. The course text is Scott Foresman’s All Together. Your student will learn about the various ways individuals contribute to their communities. The course emphasizes the concepts of good citizenship, neighborhoods, and economics. Your student will build reading and listening skills through the course activities. Your student will explore maps, photographs, biographies, illustrations, poetry, music, and other resources to learn more about communities. Multimedia resources, including Teachlet® tutorials, videos, and interactive Web sites, enhance and support the content.

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Unit 1: Time for School

In this unit, your student will explore the question "Why do we go to school?" He will learn that people form groups. A family is one type of group. He will discuss the rules and routines for home and school. Using biographies and stories about the past, he will understand how schools have changed over time.

Objectives:
- Explain why students go to school
- Define and give examples of rules
- Read a calendar
- Recognize changes between past and present
- Understand the meaning of the word "group"

Lesson 1: Time for School Unit Introduction

Objectives:
- Learn why children attend school

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Lesson 2: Families Long Ago

Objectives:
- Learn about families 200 years ago by using a variety of visual sources, such as artifacts and photographs
- Obtain information about a topic using pictures
- Describe the kinds of activities families from long ago did together and compare them with family activities today

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Lesson 3: Home and School

Objectives:
- Explain how selected symbols reflect an American love of individualism and freedom
- Explain how routines are part of our daily life at home and at school

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Lesson 4: Citizenship: Ruby Bridges Hall

Objectives:
- Identify characteristics of good citizenship, such as a belief in equality

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Lesson 5: Read a Calendar

Objectives:
- Read and create a calendar
Lesson 6: Rules We Follow

Objectives:
- Give examples of rules
- Identify the responsibilities of authority figures in the school and home
- Explain the need for rules and laws in the home, school, and community

Lesson 7: Learning About My School

Objectives:
- Obtain information about a topic using a variety of oral sources, such as interviews
- Compare past and present

Lesson 8: Things We Use

Objectives:
- Recognize that things change over time

Lesson 9: Unit 1 Portfolio: My School

Objectives:
- Identify activities that are part of school and learning
- Describe the student's school day

Lesson 10: Unit Review

Objectives:
- Review the main ideas and vocabulary from Unit 1

Lesson 11: Unit Test

Unit 2: In My Community

In this unit, your student will study the features of a neighborhood, focusing on her own neighborhood as well as other neighborhoods in our country. She will use maps to learn more about her community and country. She will identify how community leaders and volunteers work to improve their communities. She will explore how communities come together to celebrate.

Lesson 1: In My Community Unit Introduction

Objectives:
- Obtain information using oral sources, such as conversations, interviews, and music

Lesson 2: Welcome to My Neighborhood

Objectives:
- Identify buildings in relation to the school and neighborhood
- Recognize that communities include people who have diverse ethnic origins, customs, and traditions and who make contributions to their communities
Lesson 3: Map and Globe Skills: Use a Map Key

Objectives:
• Use map keys to identify locations on simple maps

Lesson 4: Different Kinds of Communities

Objectives:
• Explain similarities and differences between life in city, town, suburban, and farm communities
• Distinguish among the past, present, and future and identify changes in the community

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Lesson 5: Map and Globe Skills: Use Four Directions

Objectives:
• Locate places using the four cardinal directions

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Lesson 6: Special Things We Do

Objectives:
• Describe various customs and traditions and explain their importance
• Obtain information about a topic using a variety of oral sources, such as conversations
• Describe selected customs

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Lesson 7: Chinese New Year

Objectives:
• Describe community celebrations
• Describe various customs of families
• Obtain information about a topic using a variety of visual sources, such as pictures

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Lesson 8: Community Laws and Leaders

Objectives:
• Explain the need for laws in the community
• Identify the responsibilities of authority figures in the community
• Describe the role of public officials including the mayor

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Lesson 9: Where in the World Do I Live?

Objectives:
• Locate places of significance on maps

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Lesson 10: Continents and Oceans

Objectives:
• Locate continents and oceans on maps

Lesson 11: In My Community Unit Portfolio

Objectives:
• Complete the In My Community Portfolio

Lesson 12: In My Community Unit Review

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Lesson 13: Unit 2 Test

Unit 3: Work! Work! Work!

In this unit, your student will examine the importance of work to a community. He will learn how different people contribute to the community by working. He will study basic economic concepts such as needs, wants, spending, and saving. He will examine different types of jobs. Your student will explain how different types of transportation help to move goods and people.

Objectives:
- Identify different reasons why people work
- Explain how people contribute to their community through their jobs
- Discuss the difference between a need and a want
- Identify choices that people make about spending and saving
- Describe ways that goods are transported from place to place

Lesson 1: Work! Work! Work! Introduction

Objectives:
- List the different jobs that many people do
- Determine the meanings of words
- Recognize words that help tell order
- Analyze pictures and text to identify sequence

Lesson 2: Ben's Jobs

Objectives:
- Describe the requirements of various jobs and the characteristics of a job well-performed
- Express ideas orally based on knowledge and experiences

Lesson 3: Needs and Wants

Objectives:
- Describe ways that families meet basic human needs
- Distinguish between wants and needs
- Explain how people fulfill wants and needs

Lesson 4: Then and Now: Changing Toys

Objectives:
- Distinguish among past, present, and future
- Compare and contrast toys from the past and today

Lesson 5: Spending and Saving

Objectives:
- Identify examples of people wanting more than they can have
- Explain why wanting more than they can have requires that people make choices
- Identify examples of choices families make when buying goods and services
Lesson 6: Money Around the World

Objectives:
- Obtain information about a topic using visual sources, such as pictures and maps

Lesson 7: Welcome to Job Day

Objectives:
- Identify examples of goods and services in the home, school and community
- Describe the requirements of various jobs and the characteristics of a job well-performed
- Describe how specialized jobs contribute to the production of goods and services

Lesson 8: Kid's Kitchen

Objectives:
- Understand characteristics of good citizenship as exemplified by ordinary people
- Identify characteristics of good citizenship, such as responsibility for the common good
- Explain that people can both give and receive care

Lesson 9: Meet Clara Barton

Objectives:
- Identify contributions of historical figures who have influenced the nation
- Identify historic figures such as Clara Barton who have exemplified good citizenship

Lesson 10: Interview with a Farmer

Objectives:
- Describe how specialized jobs contribute to the production of goods and services
- Obtain information about a topic using a variety of oral sources, such as interviews
- Identify the role of markets in the exchange of goods and services

Lesson 11: Map and Globe Skills: Follow a Route

Objectives:
- Use a simple map to identify the location of places
- Locate places of significance on maps

Lesson 12: George Washington Carver

Objectives:
- Identify a historic figure who has exhibited a love of individualism and inventiveness
- Identify contributions of historical figures in the period of history since 1880
Lesson 13: From Place to Place

Objectives:
- Identify the role of transportation in the exchange of goods
- Describe how technology has changed transportation

Lesson 14: Unit 3 Portfolio: Jobs in Your Community

Objectives:
- Identify the goods and services that community workers contribute to the community

Lesson 15: Work! Work! Work! Review

Objectives:
- Review the main ideas and key words of Unit 3

Lesson 16: Work! Work! Work! Test
SOCIAL STUDIES 1 B
Social Studies 1 B

Social Studies 1 B focuses on how people in communities work together for the common good. The course text is Scott Foresman's *All Together*. Your student will learn about the various ways individuals contribute to their communities. In this semester, your student will go beyond his role in the local community to the study of our country and our world. The concept of good citizenship is woven throughout the course as your student learns about caring for our environment. Your student will build reading and listening skills through the course activities. Your student will explore maps, photographs, illustrations, poetry, music, and other resources to learn more about communities. Multimedia resources, including Teachlet® tutorials, videos, and interactive Web sites, enhance and support the content.

Unit 1: Our Earth, Our Resources

In this unit, your student will learn about our environment. He will study how the weather, seasons, and resources affect our lives. He will use maps and globes to identify land and water features. He will explore how people work together to conserve resources.

Objectives:
- Explain how weather impacts place
- Identify different types of landforms and bodies of water
- Explain actions that help take care of our Earth's resources
- Define and give examples of natural resources
- Describe how farming has changed over the years

Lesson 1: Our Earth, Our Resources Introduction

Objectives:
- Obtain information about a topic using a variety of oral sources such as music
- Use pictures to obtain information
- Identify main ideas from print sources

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Lesson 2: Different Kinds of Weather

Objectives:
- Identify and describe the physical characteristics of places, such as weather and climate
- Describe how climate affects the way people live, including their clothing and recreation
- Use vocabulary related to chronology, including yesterday, today, and tomorrow

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Lesson 3: Chart and Graph Skills: Read a Time Line

Objectives:
- Distinguish among past, present, and future
- Create a time line
- Create visual and written material including time lines
- Interpret information presented in picture time lines to show sequence of events

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Lesson 4: Looking at Our Land and Water

Objectives:
- Identify and describe the physical characteristics of places such as landforms and bodies of water
- Describe how location and physical surroundings affect the way people live, including their recreation

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Lesson 5: Map and Globe Skills: Locate Land and Water

Objectives:
• Identify a globe as a model of Earth
• Distinguish between land and water on globes and maps
• Relate locations on globes to locations on Earth

Lesson 6: Our Earth’s Resources

Objectives:
• Identify and describe the physical characteristics of places such as natural resources
• Identify examples of and uses for natural resources in the community, state, and nation

Lesson 7: Interview about Farm History

Objectives:
• Distinguish among past, present, and future
• Identify examples of and uses for natural resources

Lesson 8: Caring for Our Resources

Objectives:
• Identify ways that natural resources can be used and reused

Lesson 9: Endangered Animals

Objectives:
• Obtain information about a topic using maps and pictures
• Identify ways that protecting natural resources helps animals
• Respond to important problems with Earth’s natural resources

Lesson 10: Our Earth, Our Resources Portfolio

Objectives:
• Identify characteristics of good citizenship such as responsibility for the common good
• Identify ordinary people who exemplify good citizenship

Lesson 11: Our Earth, Our Resources Unit Review

Objectives:
• Review the main ideas and key words of the unit

Lesson 12: Unit 4 Test

Unit 2: This Is Our Country

In this unit, your student will study our country’s history, traditions, and symbols. She will read biographies of famous Americans, including Benjamin Franklin, Abraham Lincoln, and Eleanor Roosevelt. She will learn how we choose our country’s leaders.

Objectives:
• Explain the significance of important national symbols and holidays
• Describe the Native American societies
• Discuss how citizens participate in the selection of leaders
Reach Cyber Charter School Application

- Discuss the contributions made by Ben Franklin, Eleanor Roosevelt, and Abraham
  Lincoln
- Discuss reasons for European migration to the Americas during the colonial period

Lesson 1: This Is Our Country Unit Introduction

Objectives:
- Obtain information using oral sources, such as music
- Recall and retell events or ideas
- Express ideas based on oral and written sources
- Describe various customs of families
- Describe ways that families meet basic needs

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Lesson 2: Native Americans

Objectives:
- Obtain information about a topic using a variety of visual sources such
  as maps
- Describe similarities and differences in ways families meet basic needs

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Lesson 3: Native American Objects

Objectives:
- Obtain information about a topic using a variety of visual sources such
  as pictures and artifacts

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Lesson 4: Early Travelers to America

Objectives:
- Describe the origin of selected holidays
- Cite reasons for observing holidays that originated prior to 1880

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Lesson 5: The Colonies Become Free

Objectives:
- Describe the origins of selected holidays and celebrations such as
  Independence Day
- Describe the events associated with Independence Day
- Explain how selected celebrations reflect an American love of freedom
- Identify historic figures such as Nathan Hale who have exemplified good
  citizenship
- Identify contributions of historic figures such as George Washington

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Lesson 6: Benjamin Franklin

Objectives:
- Identify contributions of historical figures who have influenced the nation
- Identify historic figures who have exhibited a love of inventiveness

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Lesson 7: Symbols in Our Country

Objectives:
- Identify the motto of the United States
- Explain selected national and state patriotic symbols such as the Liberty
  Bell and the eagle
- Identify symbols that represent the United States and what it stands for
Lesson 8: Our Country’s Flag

Objectives:
- Explain selected national patriotic symbols such as the United States flag
- Distinguish between past and present
- Explain how selected symbols reflect an American love of freedom

Lesson 9: We Celebrate Holidays

Objectives:
- Describe the origins of selected holidays and celebrations of the nation such as Martin Luther King, Jr. Day and Veterans Day
- Cite reasons for observing special days and holidays
- Describe the lives of people commemorated by Presidents’ Day

Lesson 10: Abraham Lincoln

Objectives:
- Identify contributions of historical figures such as Abraham Lincoln who have influenced the nation
- Describe the lives of people commemorated by Presidents’ Day

Lesson 11: Choosing Our Country’s Leaders

Objectives:
- Identify leaders in the state and nation
- Describe the roles of public officials including governor and president
- Locate Washington, D.C. and the capital of your state on a United States map

Lesson 12: Eleanor Roosevelt

Objectives:
- Identify historic figures such as Eleanor Roosevelt who have exemplified good citizenship
- Identify characteristics of good citizenship such as a belief in justice, truth, equality, and responsibility for the common good

Lesson 13: This Is Our Country Unit Review

Objectives:
- Review the main ideas and key words of the unit

Lesson 14: Unit 5 Test

Unit 3: Our Country, Our World

In this unit, your student will learn how our country is part of the global community. He will study the inventions, communication tools, and means of transportation that allow us to connect to the rest of the world. He will explore how children around the world are similar and different.

Objectives:
- Explain the purpose of markets
Identify some of the technological advances that have changed communities
Read and interpret graphs
Explain the roles that individuals have played in making technological advances
Explain how individuals and communities preserve tradition through stories

Lesson 1: Our Country, Our World
Objectives:
• Obtain information about a topic using a variety of oral sources such as songs
• Recognize words that help make a prediction
• Analyze pictures and text to make a prediction
• Make a prediction based on information given

Lesson 2: Visiting the Market
Objectives:
• Identify the role of markets in the exchange of goods and services

Lesson 3: How Things Have Changed
Objectives:
• Describe how household tools and appliances have changed
• Describe how technology has changed recreation
• Describe how technology has changed the way people work

Lesson 4: Inventors and Inventions
Objectives:
• Describe how technology has changed communication
• Identify historic figures such as Alexander Graham Bell and Thomas Edison who have exhibited a love of inventiveness

Lesson 5: Telephones
Objectives:
• Obtain information about a topic using a variety of visual sources, such as pictures
• Describe how technology has changed communication

Lesson 6: How Travel Has Changed
Objectives:
• Describe how technology has changed transportation

Lesson 7: Life Around the World
Objectives:
• Compare housing, clothes, and foods from different parts of the world

Lesson 8: Our Country, Our World Portfolio (two-day lesson)
Objectives:
• Label a map
• Identify characteristics of place
Lesson 9: Chart and Graph Skills: Read a Bar Graph

Objectives:
- Obtain information about a topic using a variety of visual sources, such as pictures
- Create visual and written material, including graphs

Lesson 10: Lawrence Yep

Objectives:
- Identify people who exhibit a love of individualism

Lesson 11: Our Country, Our World Unit Review

Objectives:
- Review the main ideas and Key Words of the unit

Lesson 12: Unit Test
SOCIAL STUDIES 2 A
Social Studies 2 A

In Social Studies 2, your student continues to be introduced to basic concepts in history, geography, economics, government, and world cultures. She will practice basic map, chart, graph, and thinking skills through structured instruction and activities. She will learn about ordinary individuals who showed good citizenship and famous people who have influenced our country and the world. Through Learning Coach-led discussions, textbook readings, interactive activities and hands-on projects, your student will continue to explore the world through the lens of Social Studies.

Unit 1: Where We Live

Unit 1 emphasizes the study of place. Starting with the home and school, your student will explore where he lives in ever growing circles of neighborhood, community, state, country, and world. He will compare rural, suburban, and urban communities. Your student will learn how to locate his community, state, and country on a map. He will learn how communities change over time. Your student will learn about individuals who have contributed to their communities. Finally, he will practice reading maps and following a process to solve a problem.

Objectives:
- Differentiate between neighborhood, community, state, country, and world
- Compare rural, suburban, and urban communities
- Read basic maps
- Solve a problem by following a process

Lesson 1: Where We Live Unit Preview

Objectives:
- Use pictures to obtain information
- Determine the meanings of words

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Lesson 2: Living in a Neighborhood

Objectives:
- Identify ways people can work together in the classroom and community by obeying rules and laws
- Explain how rules can be made and changed by voting

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Lesson 3: Citizen Heroes: Kids Care Clubs

Objectives:
- Identify people who model good citizenship

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Lesson 4: Problem Solving at the Library

Objectives:
- Use a problem-solving process

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Lesson 5: A Walk Through a Community

Objectives:
- Recognize diversity in communities

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Lesson 6: Map and Globe Skills: Read a City Map

Objectives:
Lesson 7: Then and Now: How a Community Changes

Objectives:
- Use vocabulary related to chronology, including past, present, and future
- Name several sources of information about a given period

Lesson 8: Comparing Communities

Objectives:
- Compare rural, urban, and suburban communities

Lesson 9: Our State and Country

Objectives:
- Locate communities, states, and countries on maps
- Identify state and national symbols

Lesson 10: Where We Live Unit Biography

Objectives:
- Identify contributions of contemporary figures
- Identify individuals of past and present significance to the communities and nation

Lesson 11: Our Country Is a Part of the World

Objectives:
- Demonstrate map and globe skills

Lesson 12: Where We Live Unit Portfolio

Objectives:
- Complete the Where We Live unit portfolio

Lesson 13: Where We Live Unit Review

Objectives:
- Review the main ideas and key terms from Unit 1

Lesson 14: Where We Live Unit Test

Unit 2: Our Earth

Unit 2 focuses on the landforms and resources of Earth. Your student will learn to identify basic landforms and bodies of water in pictures and on maps. She will identify how physical features such as landforms can define regions. She will learn about how farmers use Earth’s resources to produce products. Your student will define natural resources and learn the importance of conserving our natural resources. She will learn about people who have helped conserve our natural resources. Finally, your student will practice reading symbols on maps.

Objectives:
- Identify landforms and bodies of water in pictures and on maps
- Identify natural resources
- Describe how natural resources are used
Lesson 1: Our Earth Unit Preview

Objectives:
- Use pictures to obtain information
- Determine the meanings of words

Lesson 2: Interview with a Geographer

Objectives:
- Identify landforms and bodies of water
- Obtain information through interviews

Lesson 3: Map and Globe Skills: Landforms and Water on a Map

Objectives:
- Identify major landforms and bodies of water on a map

Lesson 4: Where People Live

Objectives:
- Compare similarities and differences among families in different communities
- Explain that areas can be classified as regions according to physical criteria

Lesson 5: My Country, Many Shapes: Part 1

Objectives:
- Review different bodies of water and landforms
- Invent and describe a country

Lesson 6: From My Orchard to You

Objectives:
- Distinguish between producing and consuming
- Trace the development of a product from a natural resource to a finished product

Lesson 7: Our Earth's Resources

Objectives:
- Explain how people depend on the physical environment and its resources to meet their needs
- Identify ways to conserve and replenish natural resources

Lesson 8: Caring For Our Resources

Objectives:
- Identify ways people can conserve and replenish natural resources

Lesson 9: My Country, Many Shapes: Part 2

Objectives:
Lesson 10: Our Earth Unit Biography

Objectives:
- Identify characteristics of good citizenship such as a belief in justice, truth, equality, and responsibility for the common good
- Identify ways people can conserve and replenish natural resources

Lesson 11: Citizen Heroes: The Earth's Angels

Objectives:
- Identify ordinary people who exemplify good citizenship

Lesson 12: My Country, Many Shapes: Part 3

Objectives:
- Demonstrate knowledge of landforms by creating a model of an imaginary country
- Demonstrate knowledge of symbols by explaining choices of certain materials and symbols to represent certain landforms

Lesson 13: Our Earth Unit Review

Objectives:
- Review the main ideas and key terms from Unit 2

Lesson 14: Our Earth Unit Test

Unit 3: Working Together

Unit 3 builds a basic knowledge of economic concepts. Your student will explore the choices that people make while earning, spending, and saving money. He will learn about common services provided in most communities. Your student will define producers and consumers and learn the steps that a product takes from natural resource to finished product. He will be introduced to the purpose of saving and the various services banks offer to their customers. Your student will learn about why countries trade goods among themselves. Finally, your student will practice reading pie charts and using compass roses on maps.

Objectives:
- Identify key vocabulary such as goods, services, producers, and consumers
- Discuss the choices people make while earning, spending, and saving money
- Use a compass rose on a map
- Read a pie chart
- Explain why countries trade

Lesson 1: Working Together Unit preview

Objectives:
- Determine the meanings of words

Lesson 2: Choosing Goods and Services

Objectives:
- Explain how work provides income to purchase goods and services
- Explain the choices people make about earning, spending, and saving money

Lesson 3: Thinking Skills: Make a Decision
Objectives:
- Use a decision-making process
- Explain that scarcity requires people to make choices

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Lesson 4: Citizen Heroes: Phoenix Kids Pride Program

Objectives:
- Identify ordinary people who exemplify good citizenship

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Lesson 5: Services in Our Community

Objectives:
- Identify people who provide services to our community
- Identify some governmental services in the community

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Lesson 6: Goods from the Factory to You

Objectives:
- Distinguish between producing and consuming
- Identify ways that people are both producers and consumers
- Trace the development of a product from natural resources to finished product

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Lesson 7: Map and Globe Skills: Use a Compass Rose

Objectives:
- Use a map to follow a route

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Lesson 8: A Trip to the Bank

Objectives:
- Explain the choices people can make about earning, spending, and saving money

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Lesson 9: Chart and Graph Skills: Read a Pie Chart

Objectives:
- Obtain information from a pie chart
- Construct a pie chart

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Lesson 10: Biography: Linda Alvarado or Florence Nightingale

Objectives:
- Identify historic figures who have exemplified good citizenship
- Identify ordinary people who exemplify good citizenship

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Lesson 11: Countries Trade and Move Goods

Objectives:
- Explain how countries are linked by trade and transportation

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Lesson 12: Then and Now: Bartering Goods

Objectives:
- Distinguish between the use of barter and money in the exchange of goods and services

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Lesson 13: Working Together Unit Portfolio

Objectives:
- Complete the Working Together portfolio

Lesson 14: Working Together Unit Review

Objectives:
- Review the main ideas and Key Words from Unit 3

Lesson 15: Working Together Unit Test
SOCIAL STUDIES 2 B
Social Studies 2 B

In Social Studies 2, your student continues to be introduced to basic concepts in history, geography, economics, government, and world cultures. She will practice basic map, chart, graph, and thinking skills through structured instruction and activities. She will learn about ordinary individuals who showed good citizenship and famous people who have influenced our country and the world. Through Learning Coach-led discussions, textbook readings, interactive activities, and hands-on projects, your student will continue to explore the world through the lens of Social Studies.

Unit 1: Our Country Today

Unit 1 builds a basic knowledge of government. Your student will learn about local, state, and federal government. He will learn about the role and purpose of government. Your student also will learn ways that public officials are chosen, including by election and by appointment. He will be introduced to famous Americans who have worked to better the government and lives of Americans. Your student will be introduced to common symbols, songs, and monuments that represent the United States. Finally, he will practice using map grids.

Objectives:
- Explain the purpose of government
- Describe local, state, and federal government
- Explain the importance of voting
- Read and interpret maps and graphs
- Identify and discuss the significance of important symbols of American freedom

Lesson 1: Our Country Today Unit Preview

Objectives:
- Use pictures to learn about a topic
- Determine the meanings of words

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Lesson 2: Local Government

Objectives:
- Identify functions of government
- Compare the roles of public officials

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Lesson 3: Citizen Heroes: Anna Beavers

Objectives:
- Identify characteristics of good citizenship

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Lesson 4: State Government

Objectives:
- Describe how governments establish order, provide security, and manage conflict

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Lesson 5: Federal Government

Objectives:
- Identify the functions of government

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Lesson 6: Voting for Leaders
Objectives:
• Identify ways that public officials are selected, including election and appointment to office

Lesson 7: Biography: Susan B. Anthony or Thurgood Marshall

Objectives:
• Identify characteristics of good citizenship such as a belief in justice, truth, equality, and responsibility for the common good
• Identify significant individuals in United States history who have worked to achieve equality and improve individual lives
• Identify contributions of historical figures who have influenced the community, state, and history

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Lesson 8: The Land of Freedom

Objectives:
• Identify patriotic songs, symbols, and mottoes
• Identify people who have worked to improve the lives of American citizens
• Identify buildings, statues, and monuments associated with national history

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Lesson 9: Use a Map Grid

Objectives:
• Find locations on maps

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Lesson 10: Map Grids

Objectives:
• Find locations on maps

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Lesson 11: Flags Around the World

Objectives:
• Identify flags as national symbols throughout the world

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Lesson 12: Our Country Today Unit Portfolio

Objectives:
• Identify parts of a letter
• Describe a problem in the community

Lesson 13: Our Country Today Unit Review

Objectives:
• Define the key words for the unit
• Explain the main ideas of the unit

Lesson 14: Our Country Today Unit Test

Unit 2: Our Country Long Ago

Unit 2 introduces your student to some common events in the United States’ past. Your student will learn about several Native American groups and how their environments affected their lifestyles. She will learn about early colonists who came to America, and how
those colonists later fought for independence. She will learn about the westward expansion of the United States. Finally, your student will practice using time lines and map scales.

Objectives:
• Describe the characteristics of different Native American groups
• Read and interpret maps and graphs
• Describe the European settlements in St. Augustine, Jamestown, and Plymouth
• Identify key leaders and events in the creation and expansion of the United States
• Explain the influence of Harriet Tubman, Frederick Douglass, and Sojourner Truth

Lesson 1: Our Country Long Ago Unit Preview

Objectives:
• Obtain information about a topic by using visual sources, such as pictures
• Determine the meanings of words

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Lesson 2: The First Americans

Objectives:
• Compare Native American cultures from different regions and times
• Explain ways climate, location, and physical surroundings affect the way people live

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Lesson 3: Citizen Heroes: Ella Clara Deloria

Objectives:
• Explain how local people have influenced local community history
• Identify significant aspects of the lives and accomplishments of selected historical figures
• Identify characteristics of good citizenship

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Lesson 4: Colonies

Objectives:
• Describe how weather patterns, natural resources, seasonal patterns, and natural hazards affect activities and settlement patterns
• Explain the significance of events honored in commemorative holidays, such as Thanksgiving

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Lesson 5: Map and Globe Skills: Use a Map Scale

Objectives:
• Use a map scale to determine distance
• Obtain information from a variety of visual sources, including maps

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Lesson 6: Thirteen Colonies, One Country

Objectives:
• Explain the significance of national celebrations, such as Independence Day
• Explain how selected customs and celebrations reflect an American love of individualism and freedom

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Lesson 7: Our Country Grows

Objectives:

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Lesson 8: Chart and Graph Skills: Read a Time Line

Objectives:
• Create and interpret a time line

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Lesson 9: Then and Now: Westward Ho

Objectives:
• Describe how science and technology have changed transportation

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Lesson 10: We Remember Americans

Objectives:
• Identify contributions of historical figures who have influenced the nation
• Compare various interpretations of the same time period using evidence such as photographs

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Lesson 11: Biography: Paul Revere or Sojourner Truth

Objectives:
• Identify historic figures, such as Paul Revere and Sojourner Truth, who have exemplified good citizenship

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Lesson 12: Our Country Long Ago Unit Portfolio

Objectives:
• Identify key events in American history

Lesson 13: Our Country Long Ago Unit Review

Objectives:
• Define the key words from the unit
• Explain the main ideas of the unit

Lesson 14: Our Country Long Ago Unit Test

Unit 3: People and Places in History

Unit 3 focuses on the study of history. Your student will learn about the many immigrants that came to this country and the ways they have shaped our country. He will learn about common American traditions and celebrations. Your student will learn about the importance of landmarks, including several national and international landmarks. He will examine the contributions of ancient China and Egypt to our lives today. Your student will learn how transportation and communication have changed over time. He will learn about famous people who have contributed to the world through their inventions and designs. Finally, he will practice reading calendars and diagrams.

Objectives:
• Explain why immigrants come to the United States in search of a better life
• Explain how holidays preserve cultural heritage
• Describe the significance of important landmarks in the United States
• Explain how historians use artifacts to learn more about the past
• Discuss how technology has changed the way people communicate and travel

Lesson 1: People and Places in History Unit Preview

Objectives:
• Use pictures to learn about a topic

Appendix A.2.d Social Studies Course Guides

Social Studies 2 B
Lesson 2: Family History

Objectives:
• Explain that the United States is a land of people who have diverse ethnic origins
• Name several sources of information about a given period or event

Lesson 3: People and Places in History Unit Portfolio

Objectives:
• Learn about the past from eyewitness accounts

Lesson 4: Citizen Heroes: Ellen Ochoa

Objectives:
• Identify characteristics of good citizenship

Lesson 5: People Celebrate

Objectives:
• Explain how selected customs and celebrations reflect an American love of individualism, inventiveness, and freedom

Lesson 6: Chart and Graph Skills: Read a Calendar

Objectives:
• Describe and measure calendar time

Lesson 7: Landmarks in Our Country

Objectives:
• Identify and explain the significance of various community, state, and national landmarks

Lesson 8: Here and There: Landmarks around the World

Objectives:
• Use designations of time periods such as ancient times and modern times
• Locate Egypt and China on a world map

Lesson 9: A Step Back in Time

Objectives:
• Explain how the contributions of ancient China and Egypt have influenced the present world in terms of architecture, inventions, the calendar, and written language

Lesson 10: Chart and Graph Skills: Read a Diagram

Objectives:
• Obtain information about a topic using a diagram
Lesson 11: Linking Our World

Objectives:
- Use vocabulary related to chronology including past, present, and future
- Describe how science and technology have changed communication and transportation
- Identify historic figures who have exhibited a love of individualism and inventiveness

Lesson 12: Biography: Ieoh Ming Pei or Robert Fulton

Objectives:
- Explain how people influence communities

Lesson 13: People and Places in History Unit Review

Objectives:
- Review for unit test

Lesson 14: People and Places in History Unit Test
SOCIAL STUDIES 3 A
Social Studies 3 A

This Social Studies course focuses on the theme of community through the study of geography, history, government, and economics. The course text is Scott Foresman’s Communities. In this course, the student will explore a variety of communities, past and present, from around the world. Short stories, biographies, poetry, case studies, songs, and other resources emphasize the role of the individual in the community, as well as the influence of geography on communities. Multimedia resources including Teachlet® tutorials, videos, and interactive websites enhance and support the content. The student will learn geographic concepts such as place, location, and human interaction with the environment. Geography skills lessons are incorporated throughout the course. In addition, the student will learn the basic principles that led to the creation of the Declaration of Independence and the U.S. Constitution. The student will learn about the rights and responsibilities of citizens and the three branches of government. In the economics unit, the student will examine basic economic concepts such as money, prices, supply and demand, and taxes. The student will examine factors that contribute to personal economic decisions.

Constitution Day (L)

Objectives:
- Identify key people involved in the writing of the Declaration of Independence and the U.S. Constitution
- Identify the rights promoted by the Declaration of Independence
- Explain the purpose of the U.S. Constitution
- Recognize some of the national symbols of liberty

Unit 1: Our Community

In this unit, your student will understand the meaning of community as a place where people live, work, and have fun. He will recognize the characteristics of rural, suburban, and urban communities. He will also be able to recognize each type of community. Your student will study pictures and stories of different communities in the United States and around the world.

Objectives:
- Explain what makes communities special
- Define communities
- Give examples of different types of communities
- Read and interpret maps
- Explain how individuals contribute to communities

Lesson 1: Unit 1 Introduction

Objectives:
- Use literature to acquire information
- Use visuals and print material to acquire information

Lesson 2: Communities

Objectives:
- Define the concept of community
- Describe the geography of a community
- Describe the history of a community
- Interpret print material by identifying the main idea and details
- Identify and describe an ordinary person who exemplifies good citizenship
- Describe actions by an individual that changed and improved a community

Lesson 3: United States Communities

Objectives:
- Compare and contrast communities across the United States
• Relate the geographic location of a community to the local area, the state, and the country
• Obtain information about the geography and history of a community from print and visual sources
• Interpret print material by identifying the main idea and details
• Describe how a decision by an individual and the actions that followed changed and improved a community
• Identify and describe a person who exemplifies good citizenship

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Lesson 4: World Communities

Objectives:
• Define the concept of culture
• Assess similarities and differences among communities in different times
• Relate the history of a community
• Interpret print material by identifying the main idea and details; compare ways in which people around the world meet their needs
• Describe variations in the physical environment, including natural hazards
• Describe the effects of human processes in shaping the landscapes
• Compare the human characteristics of regions

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Lesson 5: African Communities

Objectives:
• Compare ways in which people around the world meet their needs
• Describe variations in the physical environment, including natural hazards
• Describe the effects of human processes in shaping the landscape
• Compare the human characteristics of regions

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Lesson 6: Understanding Map Scale

Objectives:
• Use a map scale to determine distance between places
• Interpret visuals including maps

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Lesson 7: A Rural Community (two-day lesson)

Objectives:
• Explain what is meant by the term rural community
• Compare the ways people in a community meet their needs for recreation
• Describe the geography of a community
• Interpret print material by identifying the main idea and details

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Lesson 8: A Suburban Community

Objectives:
• Explain what is meant by the term suburban community
• Describe how rural communities can change to suburban communities
• Identify reasons why people form communities
• Identify and explain similarities and differences among communities in different places
• Interpret print material by identifying the main idea and details
• Describe how individuals contributed to the expansion or creation of communities

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Lesson 9: William Levitt

Objectives:
• Describe how individuals contributed to the expansion or creations of communities

Lesson 10: An Urban Community

Objectives:
• Explain what is meant by the term urban community
• Compare and contrast urban communities and suburban communities
• Compare the way people in communities meet their needs for transportation and recreation
• Interpret print material by identifying the main idea and details
• Compare the ways people in communities meet their needs
• Use classifying to interpret visual and print material

Lesson 11: My Dream Community

Objectives:
• Interpret visuals, including maps
• Use map scale to determine distance between places

Lesson 12: Communities in Stories

Objectives:
• Identify selected individual writers and their poems from communities around the world

Lesson 13: Here and There: Another Big City

Objectives:
• Compare the ways people in communities meet their needs

Lesson 14: Unit Review

Objectives:
• Review the main ideas of Unit 1
• Review the meaning of key words from Unit 1
• Practice identifying the main ideas of a passage

Lesson 15: Unit Test

Unit 2: People in Communities

In this unit, your student will learn about those factors that inspired people to travel to America from places around the world. She will understand the experiences immigrants faced as they strived to learn new customs and start new lives. She will also understand the importance of celebrating existing and past cultures of a community.

Objectives:
• Explain how individuals contribute to the growth and well-being of a community
• Explain why people move from place to place
• Discuss how immigrants blend parts of their old culture with parts of their new community's culture

Appendix A.2.d Social Studies Course Guides

Social Studies 3 A

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Lesson 1: Unit 2 Introduction

Objectives:
- Interpret print material by comparing and contrasting
- Use literature to acquire information
- Explain the significance of and compare different ethnic cultural celebrations in the United States

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Lesson 2: Moving to a New Community

Objectives:
- Interpret visual and print material by comparing and contrasting

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Lesson 3: New Customs

Objectives:
- Discuss ways that cultural groups are alike and different and ways they work together and cooperate
- Explain that Americans are a people of diverse ethnic origins, customs, and traditions
- Compare ways in which people in the local community meet their needs for education in the present
- Interpret print material by comparing and contrasting

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Lesson 4: Citizen Heroes: Volunteering

Objectives:
- Identify historic figures, such as Jane Addams, who have exemplified good citizenship
- Identify characteristics of good citizenship, such as a belief in responsibility for the common good

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Lesson 5: Where Did They Come From? (three-day lesson)

Objectives:
- Identify reasons people form communities
- Describe Americans as a people of diverse ethnic origins, customs, and traditions
- Identify selected individual writers and their stories and poems of cultural heritage from communities around the world
- Use vocabulary related to chronology, including "past times" and "present times"

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Lesson 6: A New Life in America (two-day lesson)

Objectives:
- Explain the importance of acts of civic responsibility, such as voting
- Identify ways people in the United States share in the cultures and customs of various ethnic groups
- Explain what is meant by the term Great Migration
- Compare and contrast education in the past and present

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Lesson 7: Map and Globe Skills: Intermediate Directions
Objectives:
• Use cardinal and intermediate directions to locate places on maps
• Identify and use a compass rose to locate places on a map
• Interpret visuals, including maps

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Lesson 8: Celebrating Cultures

Objectives:
• Explain the significance of selected ethnic and/or cultural celebrations
• Compare ethnic and/or cultural celebrations

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Lesson 9: Map and Globe Skills: Understand Hemispheres

Objectives:
• Develop map skills by using the equator and prime meridian to identify the four hemispheres
• Interpret visuals, including maps

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Lesson 10: Celebrating a Community's Past

Objectives:
• Identify factors that make the local community unique, including how the community is enriched

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Lesson 11: Celebrations Across Our Nation

Objectives:
• Identify the contributions of Dr. Martin Luther King, Jr.
• Recognize that Veterans Day and Memorial Day honor people who have served to protect the country's freedom
• Explain the significance of a Thanksgiving celebration

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Lesson 12: Unit Review

Objectives:
• Identify selected individual writers and their poems from communities around the world
• Explain the significance of individual writers and poems to communities around the world
• Explain the contributions of individual artists in enriching the culture of their community
• Examine documents from other cultures to determine their significance
• Describe a community celebration

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Lesson 13: Unit Test

Unit 3: Where Are Communities?

In this unit, your student will understand how different physical environments distinguish one community from another community. He will learn how each community differs by its climate and the types of resources that are available in that area. Your student will also understand why some communities are able to develop and grow along mountains, water systems, roads, railroads, and air routes.

Objectives:
• Explain how physical environment affects the development of communities
• Describe ways in which people adapt to the climate of their environment
Lesson 1: Unit 3 Introduction

Objectives:
- Identify reasons people form communities
- Compare ways in which people in the local community meet their needs for transportation and education in the present
- Describe and explain variations in the physical environment, including climate, landforms, natural resources, and natural hazards
- Interpret print materials by drawing conclusions

Lesson 2: What is Your Community's Environment? (two-day lesson)

Objectives:
- Identify communities in five regions in the United States
- Describe variations in the physical environment, including climate, landforms, and natural resources
- Compare how people in different communities adapt to and modify the physical environment
- Describe the effects of human processes on shaping the landscape
- Draw conclusions about how the physical environment affects life in the community

Lesson 3: Living in Different Climates

Objectives:
- Describe and explain variations in physical environment, including climate
- Compare how people in different communities adapt to the physical environment
- Draw conclusions about how climate affects people living in different communities

Lesson 4: Maria Martinez: Pottery Artist Biography

Objectives:
- Explain the significance of individual artists and their examples of cultural heritage to communities around the world

Lesson 5: Use a Line Graph

Objectives:
- Interpret visuals, including graphs
- Use appropriate mathematical skills to interpret social studies information, such as graphs

Lesson 6: Communities and Resources (two-day lesson)

Objectives:
- Compare how people in different communities modify the physical environment
- Describe ways that people can conserve resources
- Draw conclusions about the importance of natural resources and their conservation
Lesson 7: A Mountain Community

Objectives:
- Describe how individuals, events, and ideas changed a community over time
- Identify how people in a community adapt to or modify the physical environment
- Draw conclusions about the human characteristics of mountain communities

Lesson 8: Daniel Boone Biography

Objectives:
- Describe how individuals contribute to the expansion or creation of new communities

Lesson 9: A Water Community (two-day lesson)

Objectives:
- Describe how individuals and events have changed Seattle over time
- Describe and explain variations in the physical environment, including natural resources
- Explain how people used natural resources around Seattle
- Draw conclusions about effects of growth and change on Seattle

Lesson 10: Conflict Resolution

Objectives:
- Identify ways to show respect toward others
- Identify and use alternative methods of conflict resolution

Lesson 11: A Crossroads Community

Objectives:
- Identify ways people in a community meet their needs for transportation
- Describe how individuals and events changed Indianapolis over time
- Describe the role of Indianapolis in the Underground Railroad
- Draw conclusions about Indianapolis’s importance in the past and present

Lesson 12: Citizen Heroes (two-day lesson)

Objectives:
- Identify historic figures, such as Harriet Tubman, who have exemplified good citizenship
- Identify characteristics of good citizenship, such as a belief in equality

Lesson 13: Unit Review

Objectives:
- Describe how fictional characters model qualities of good leaders and citizenship
- Explain how writers and their works share a community’s culture with others
Reach Cyber Charter School Application

- Interpret oral material by identifying cause and effect

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Lesson 14: Unit Test

Appendix A.2.d Social Studies Course Guides

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SOCIAL STUDIES 3 B
Social Studies 3 B

This Social Studies course focuses on the theme of community through the study of geography, history, government, and economics. The course text is Scott Foresman's *Communities*. In this course, the student will explore a variety of communities, past and present, from around the world. Short stories, biographies, poetry, case studies, songs, and other resources emphasize the role of the individual in the community, as well as the influence of geography on communities. Multimedia resources including Teachlet® tutorials, videos, and interactive websites enhance and support the content. The student will learn geographic concepts such as place, location, and human interaction with the environment. Geography skills lessons are incorporated throughout the course. In addition, the student will learn the basic principles that led to the creation of the Declaration of Independence and the U.S. Constitution. The student will learn about the rights and responsibilities of citizens and the three branches of government. In the economics unit, the student will examine basic economic concepts such as money, prices, supply and demand, and taxes. The student will examine factors that contribute to personal economic decisions.

**Unit 1: History of Communities**

In this unit, your student will learn how the history of present-day communities throughout North America was shaped by the migration and exploration of early groups. She will learn about early day Spanish, French, English and Native American settlements. She will also understand how technology changes a community over time through innovations in transportation, communication, and medicine, along with key inventions.

**Lesson 1: Unit Introduction**

Objectives:

- Describe how individuals, events, and ideas have changed communities
- Describe historical times in terms of years, decades, and centuries
- Interpret print materials by identifying cause and effect

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**Lesson 2: Explorers Come to North America**

Objectives:

- Compare people, places, events, and developments in communities within the United States
- Describe the exploration of the Americas by describing the accomplishments of Christopher Colombus, Hernando de Soto, Juan Ponce de Leon, Jacques Cartier, and Samuel de Champlain
- Develop map skills by locating the regions in the Americas explored by Christopher Colombus and Juan Ponce de Leon
- Explain how the natural environment influenced the way Native Americans dressed, built houses, and obtained food

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**Lesson 3: A Spanish Community**

Objectives:

- Describe the accomplishments of Christopher Columbus and Juan Ponce de Leon
- Explain why the community of St. Augustine was established and identify early founders and settlers
- Identify and compare people, places, and events in communities within the United States
- Describe why and how the community of Cadiz, Spain, was established

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**Lesson 4: Use a Locator Map**

Objectives:

- Identify and use symbols to locate places on a map
Lesson 5: A French Community

Objectives:
- Describe the explorations of the Americas by Jacques Cartier
- Locate regions explored by Jacques Cartier and Samuel de Champlain
- Compare the changes brought about by explorers, such as Jacques Cartier
- Identify different points of view of characters in historical events

Lesson 6: Issues and Viewpoints: Who Owns the Land?

Objectives:
- Identify different points of view of characters in historical events
- Describe how individuals contributed to the expansion or creation of communities

Lesson 7: An English Community

Objectives:
- Describe the accomplishments of Christopher Newport (Jamestown, Virginia)
- Compare early European settlements, such as Jamestown, in terms of why they were founded, who contributed to their founding, and how they changed over time
- Identify reasons people formed communities
- Describe how Pocahontas changed a community

Lesson 8: Communities and Their Histories (two-day lesson)

Objectives:
- Review people, places, vocabulary, and events of Chapter 7
- Describe the Early European settlements in the Americas

Lesson 9: Transportation Over Time (two-day lesson)

Objectives:
- Explain how individuals such as Meriwether Lewis and William Clark contributed to the expansion or creation of communities
- Compare the ways people in a community meet their needs for transportation over time and in the present
- Identify inventors who have developed new technologies and explain their impact on daily life
- Develop simple time lines of events that have occurred

Lesson 10: Use a Time Line

Objectives:
- Develop simple time lines of events that have occurred
- Interpret time lines
- Describe historical times in terms of years, decades, and centuries

Lesson 11: Communication Over Time
Lesson 12: Inventions Over Time (two-day lesson)

Objectives:
- Identify scientists and inventors, such as Louis Daguerre, Cyrus McCormick, Thomas Edison, Lewis Latimer, and George Eastman, who invented new technology
- Identify the impact of new technology in photography on communities around the world
- Identify the impact of new technology in farm equipment on communities around the world
- Compare and contrast the methods of communication used in the 1700s with those used today

Lesson 13: Medicine Improves Over Time

Objectives:
- Identify scientists and inventors, such as Louis Pasteur, Edward Jenner, Jonas Salk, and Gertrude Elion, who have created new technology
- Identify the impact of new technology in pasteurization on communities around the world
- Identify the impact of new technology in medical vaccines on communities around the world
- Use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of that solution

Lesson 14: Helen Keller

Objectives:
- Identify historic figures such as Helen Keller who have exemplified good citizenship

Lesson 15: Unit Review

Objectives:
- Identify the impact of new technology on communities around the world

Lesson 16: Unit Test

Unit 2: Communities at Work

In this unit, your student will understand how money impacts consumers’ choices and decision making regarding their earnings, spending and savings. He will learn how people’s actions are influenced by the ability to distinguish needs from wants. He will also learn how business owners are confronted with decisions and choices regarding production, services, and resources which impact profits.

Lesson 1: Unit Introduction
Objectives:

- Identify ways of spending and saving money, describe features of communities in various regions of the country
- Interpret visuals including illustrations
- Identify ways of saving money

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Lesson 2: Earning, Spending, and Saving (two-day lesson)

Objectives:

- Identify ways of earning, spending, and saving money
- Analyze a simple budget that allocates money for spending and saving
- Explain the difference between needs and wants

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Lesson 3: Choosing Wisely (two-day lesson)

Objectives:

- Identify an example of making an economic choice
- Explain how people make choices about goods and services
- Explain the idea of opportunity cost

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Lesson 4: A Community Business

Objectives:

- Explain how supply and demand affect the price of a good or a service
- Explain how the cost of production and selling price affect profits
- Give examples of how a simple business operates

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Lesson 5: Chapter 9 Review and Quiz (two-day lesson)

Objectives:

- Review vocabulary and events of Chapter 9

Lesson 6: Using Resources

Objectives:

- Explain how producers use natural resources, human resources, and capital resources to produce goods
- Describe how the cost of production affects profits
- Sequence the steps in the process of producing a bat

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Lesson 7: Resource Maps

Objectives:

- Read and interpret a resource map

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Lesson 8: Depending on Others (two-day lesson)

Objectives:

- Define and identify examples of scarcity
- Explain the impact of scarcity on the production, distribution, and consumption of goods and services
- Explain the impact of scarcity on interdependence within and among communities
- Sequence the production, distribution, and consumption of lumber

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Lesson 9: A World of Trade (two-day lesson)

Objectives:
• Describe the effects of modern communication and transportation on trade
• Explain that people benefit from voluntary trade with each other
• Explain how people in ancient Greece and Rome depended on others in the production of goods
• Explain the concept of a free market

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Lesson 10: Unit Review

Objectives:
• Identify individuals who have helped shape communities through their words, writing, or action
• Identify ordinary citizens who exemplify good citizenship
• Present a commercial for a good or service

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Lesson 11: Unit Test

Unit 3: Governments

In this unit, your student will learn about past government and the impact that present day government has on the rights and responsibilities of today's citizens. She will learn how citizens can become good citizens by using these rights and responsibilities on a community, state and country level. She will also learn about the structure of state government and understand how communities benefit from local government services and community leaders.

Lesson 1: Unit Introduction

Objectives:
• Describe the importance of the Pledge of Allegiance
• Analyze the contributions of specific communities to the formation of the United States, its heritage, and its traditions
• Analyze printed information by using the skill of summarizing

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Lesson 2: Governments in the Past (two-day lesson)

Objectives:
• Identify how people formed communities to gain security and to live under fair laws
• Compare the architecture of ancient Greece to that in Washington, D.C.
• Compare ways that people in communities around the world meet their needs for government
• Explain the importance of the Magna Carta and the Mayflower Compact

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Lesson 3: United States Government

Objectives:
• Explain the importance of the Declaration of Independence
• Explain the importance of the United States Constitution
• Identify the rights guaranteed in the Bill of Rights
• Identify Pierre-Charles L'Enfant as an individual who helped shape a community
• Identify how ideas have changed communities over time
• Identify characteristics of good citizenship such as a belief in justice, truth, and equality

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Lesson 4: Here and There: Ancient Rome and Washington D.C.

Objectives:
- Compare the architecture of ancient Rome to that in Washington D.C.

Lesson 5: Being a Good Citizen

Objectives:
- Identify characteristics of good citizenship such as a responsibility for the common good
- Identify important acts of civic responsibility such as obeying laws and voting
- Identify actions individuals can take to improve their community
- Explain why government is important in the school and classroom

Lesson 6: Chapter 11 Quiz

Objectives:
- Review the main ideas and vocabulary of Chapter 11

Lesson 7: Community Services

Objectives:
- Identify services commonly provided by local governments
- Identify ways people in the local community meet their needs for education
- Identify ways people in the local community meet their needs for transportation
- Identify ways people in the community meet their needs for recreation
- Explain how local government services are financed

Lesson 8: Community Leaders

Objectives:
- Identify the basic structure of local government
- Identify local government officials and explain how they are chosen
- Explain the importance of consent of the governed

Lesson 9: Community Building (three-day lesson)

Objectives:
- Design a community that meets the economic, social, and government needs of the people

Lesson 10: Grid Coordinates Mystery

Objectives:
- Use latitude and longitude to locate places on maps and globes

Lesson 11: State Government

Objectives:
- Understand the difference between making laws, carrying out laws, and determining if laws have been violated
- Identify the government bodies that perform these functions at the local, state, and national levels
- Understand how violations of the law produce consequences
Reach Cyber Charter School Application

- Distinguish among city, county, and state governments

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Lesson 12: Unit Review

Objectives:
- Retell the heroic deeds of characters in Greek and Roman myths
- Identify stories from communities around the world
- Describe the roles of local leaders in the community

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Lesson 13: Unit Test
SOCIAL STUDIES 4 A
Social Studies 4 A

This Social Studies course focuses on the study of five unique geographic regions of the United States: the Northeast, the Southeast, the Midwest, the Southwest, and the West. The course text is Scott Foresman’s Regions. In this course, the student will explore each region in depth in order to understand the distinctive features of the regions, as well as the common threads that unite the country. The student will explore the people, land, and events that shaped the history of each region. Short stories, biographies, poetry, case studies, songs, and other resources emphasize the role of the individual in the community, as well as the concept of change over time. Multimedia resources, including Teachlet® tutorials, videos, and interactive websites, enhance and support the content. The student will learn geographic concepts such as place, location, and human interaction with the environment. Geography skills lessons are incorporated throughout the course.

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U.S. Constitution Day (L)

Objectives:
- Explain the importance of the U.S. Constitution
- Discuss James Madison's role in the creation of the U.S. Constitution
- Explain why the Bill of Rights was added to the Constitution

Unit 1: Living in the United States

In this unit, your student will learn about the diversity and variety of the regions, climates, landforms, resources, and people who settled the land throughout the United States. He will understand how the Constitution of the United States outlines democratic principles and the rights of its citizens. Your student will also learn how the United States’ economy provides opportunities for people to earn a living.

Objectives:
- Identify the five geographic regions of the United States
- Describe factors that make each region unique
- Identify rights and responsibilities of citizenship
- Explain how the United States became a nation of diversity
- Explain why trade is important to societies

Lesson 1: Regions and Landforms (two-day lesson)

Objectives:
- Identify the major five regions of the United States; describe the major landforms of each region in the United States
- Explain the difference between regional and state boundaries

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Lesson 2: Climate

Objectives:
- Explain the difference between weather and climate
- Describe the climate of each region in the United States; describe the major types of climates around the world
- Describe the three main factors that affect the climate of an area

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Lesson 3: Map and Globe Skills: Reading Inset Maps

Objectives:
- Identify the purpose of inset maps
- Interpret information in inset maps

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Lesson 4: Regional Resources (two-day lesson)

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Objectives:

- Explain how each region’s resources shaped the industries that grew there
- Explain the difference between renewable and non-renewable resources
- Explain how people can be considered resources

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Lesson 5: Americans All

Objectives:

- Describe what is known about the people who were living in America when Columbus arrived
- Explain why explorers and settlers came to North America
- Explain how the land belonging to the United States grew from the Atlantic Ocean to the Pacific Ocean

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Lesson 6: We the People (two-day lesson)

Objectives:

- Explain what the Constitution is and why it is important
- Identify the three levels of government
- Describe the responsibilities of each of the three branches of government
- Explain how the Constitution can be changed

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Lesson 7: The Strengths of Our Freedoms

Objectives:

- Identify two ways that a person can become a citizen of the United States
- Identify three types of services that are paid for by taxes
- Identify at least three responsibilities of U.S. citizens
- Explain why voting is an important responsibility in the United States

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Lesson 8: The Land of Plenty

Objectives:

- Explain what might have drawn the first Americans to North America
- Explain why Americans decided to move westward in the 1800s
- Describe what happened in the late 1800s to change the way people lived and worked

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Lesson 9: Trade: Then and Now (two-day lesson)

Objectives:

- Describe how goods and services were traded by barter
- Explain how a business makes a profit
- Explain the difference between supply and demand

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Lesson 10: Transportation and Communication

Objectives:

- Explain what it means for regions to be economically interdependent
- Describe what globalization is and why countries of the world depend on each other
- Describe how fast transportation and communication have made national and world trade possible

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Lesson 11: Unit Review

Objectives:
- Review the main ideas and terms from Unit 1
- Prepare for the Unit 1 test

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Lesson 12: Unit Test

Unit 2: The Northeast

In this unit, your student will learn about the natural beauty of the Northeast region of the United States. Your student will examine Niagara Falls, various mountain ranges, rich resources, and important bodies of water. She will learn about past settlements and interactions of the Native Americans and immigrants in the Northeast. At the end of the unit, your student will learn how women and industrialization brought great social and economic change to the area.

Objectives:
- Identify the geographic features of the Northeast region
- Discuss the importance of the Chesapeake Bay and other bays in the region
- Describe the societies that were formed in the Northeast region
- Identify abolitionists and explain how they worked to abolish slavery
- Explain how Northeastern cities have grown and changed over time

Lesson 1: The Beautiful Northeast

Objectives:
- Identify the two Great Lakes between which Niagara Falls is located
- Identify the two main features for which Niagara Falls is known
- Identify the three main mountain ranges in the Northeastern part of the Appalachian Mountains
- Identify the two states in the Northeast that do not border the Atlantic Ocean

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Lesson 2: Resources of the Northeast (two-day lesson)

Objectives:
- Identify key steps in the production of maple syrup
- Explain why grapes grow well in certain areas of the Northeast
- Identify the largest lake of the Finger Lakes
- Explain why water is essential to the production and growth of cranberries

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Lesson 3: Plentiful Sea (two-day lesson)

Objectives:
- Define the name of the people who fish Chesapeake Bay
- Explain how pollution from a factory gets into Chesapeake Bay
- Explain why Chesapeake Bay is important to the Northeast
- Describe actions a resident of the Chesapeake Bay area could take to help preserve the bay

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Lesson 4: Then and Now

Objectives:
- Describe how and why places change over time

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Lesson 5: The Narragansett People

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Objectives:
• Describe key events that affected the Narragansett way of life once European settlers arrived
• Define sachem
• Describe what goods the Europeans and Native Americans traded
• Explain why the Iroquois Confederacy was established

Lesson 6: The Land of New Beginnings

Objectives:
• Identify events leading from the colonization up to the founding of the United States
• Identify cities in the Northeast that have been capitals of the United States
• Identify the city in the Northeast where most European immigrants arrived in the 1800s
• Explain why immigrants came to the United States

Lesson 7: Using a Vertical Time Line

Objectives:
• Analyze a vertical time line to acquire information

Lesson 8: Taking a Stand

Objectives:
• Explain similarities and differences between the abolitionist movement and the women's rights movement
• Explain the meaning of the word abolitionist; identify important women's rights reformers
• Explain why reformers fought to win voting rights for women

Lesson 9: Cities Grow and Change (two-day lesson)

Objectives:
• Explain why Northeastern cities developed where they did
• Identify and explain the importance of places that make tourism a major industry in Northeastern cities
• Describe how Pittsburgh's industries, like those of other Northeastern cities, have changed over the years
• Describe the relationship between the people and the economies of Northeastern cities

Lesson 10: Northeast Landmarks

Objectives:
• Identify objects and places of interest in the Northeast

Lesson 11: Citizen Heroes: Capturing History

Objectives:
• Describe how citizens of New York City have shown responsibility on and after September 11, 2001

Appendix A.2.d Social Studies Course Guides
Social Studies 4 A
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Lesson 12: Unit 2 Portfolio (two-day lesson)

Objectives:
- Use the writing process to take notes, create a draft, and prepare a published copy of the report
- Use the Internet or other library resources to conduct research
- Identify the contributions of a famous immigrant

Lesson 13: Unit Review

Objectives:
- Review the main ideas and terms from Unit 2
- Prepare for the Unit 2 test

Lesson 14: Unit Test

Unit 3: The Southeast

In this unit, your student will learn about the valuable and rich geographic features of the Southeast region of the United States. This region offers a warm climate, fertile land, and an abundance of rich natural resources. He will learn how the area appealed to the Cherokees and many European settlers, and it continues to be a desired destination for many people today. Finally, he will learn how this region played an important part in the nation's Civil War.

Objectives:
- Identify the main areas of the Southeast region
- Discuss the impact of climate and resources on the Southeast
- Explain how the Cherokee contributed to the history of the Southeast
- Describe the historical events that shaped Southeast region
- Discuss the conditions that have led to growth and change in Southeast cities

Lesson 1: Reading Social Studies: Main Ideas and Details

Objectives:
- Analyze information by identifying the main idea and details

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Lesson 2: Coastal Plains to the Mountains

Objectives:
- Identify and describe major landforms in the Southeast
- Explain how barrier islands are formed

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Lesson 3: Map and Globe Skills: Reading Elevation Maps

Objectives:
- Explain how to use an elevation map
- Use an elevation map to compare and contrast landform elevations in the Southeast

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Lesson 4: Sunlight and Storms

Objectives:
- Describe the climate of the Southeast
- Examine hurricanes in the Southeast
- Explain the function of lighthouses
- Explain how hurricanes form
- Describe the effects of hurricanes

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Lesson 5: Wildlife and Resources (two-day lesson)
Objectives:
• Describe the importance of protecting endangered species
• Identify ways in which resources of the Southeast are used
• Identify a renewable and a nonrenewable resource found in the Southeast
• Explain why coal is an important resource in the Southeast

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Lesson 6: The Cherokee

Objectives:
• Describe how the Cherokee lived before Europeans came to North America
• Evaluate how Cherokee culture changed after Europeans came to the Southeast
• Identify the Trail of Tears and describe its impact on the Cherokee
• Explain how the North Carolina Cherokee support themselves and keep their culture alive today

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Lesson 7: Early History of the Southeast

Objectives:
• Identify important explorers of the Southeast and the areas they explored
• Locate the earliest European settlements in the Southeast
• Identify early leaders from the Southeast and describe their contributions to the United States
• Evaluate the impact of agriculture in the Southeast

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Lesson 8: Citizen Heroes: Speaking Out

Objectives:
• Identify the contributions of Sarah and Angelina Grimke to the antislavery movement

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Lesson 9: The Nation Divided

Objectives:
• Identify two causes of the Civil War
• Explain the effects of the Civil War on the Southeast; describe how the Southeast changed during Reconstruction
• Analyze the development of the civil rights movement
• Describe the contributions of Rosa Parks to the civil rights movement
• Distinguish between fact and opinion

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Lesson 10: The Glittering Cities

Objectives:
• Describe the first gold rush in the United States
• Explain why Atlanta is an important transportation center
• Identify the causes of growth in Southeastern cities

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Lesson 11: The Southeast (two-day lesson)

Objectives:
• Identify characteristics of the Southeast region of the United States
Lesson 12: Unit Review

Objectives:
• Review the main ideas and vocabulary of the unit

Lesson 13: Unit Test
SOCIAL STUDIES 4 B
Social Studies 4 B

This Social Studies course focuses on the study of five unique geographic regions of the United States: the Northeast, the Southeast, the Midwest, the Southwest, and the West. The course text is Scott Foresman’s Regions. In this course, the student will explore each region in depth in order to understand the distinctive features of the regions, as well as the common threads that unite the country. The student will explore the people, land, and events that shaped the history of each region. Short stories, biographies, poetry, case studies, songs, and other resources emphasize the role of the individual in the community, as well as the concept of change over time. Multimedia resources, including Teachlet® tutorials, videos, and interactive websites, enhance and support the content. The student will learn geographic concepts such as place, location, and human interaction with the environment. Geography skills lessons are incorporated throughout the course.

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Unit 1: The Midwest

In this unit, your student will learn about the valuable geographic features that the Midwest region of the United States offers, such as rich natural resources, fertile farmlands, and key waterways. She will learn about the experiences of past and present-day groups of people who settled in this region. She will also learn how the diversity of the population has led to a rich culture in the region.

Objectives:
• Discuss the importance of the Great Lakes
• Identify and describe important geographic features of the Midwest
• Trace the historical development of the region
• Identify the different groups who have settled in the Midwest and discuss their contributions to the region
• Explain why the Midwest is an important trade and transportation center

Lesson 1: Reading Social Studies: Cause and Effect

Objectives:
• Analyze information by identifying cause-and-effect relationships

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Lesson 2: A Route to the Sea

Objectives:
• Explain how the Great Lakes were formed
• Define the words waterway, canal, lock, and barge
• Explain why the flow of the Chicago River was changed
• Explain the advantages of shipping by water
• Describe how the Great Lakes are connected to the Atlantic Ocean

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Lesson 3: Issues and Viewpoints

Objectives:
• Describe the effect of zebra mussels on the freshwater lakes in the Midwest

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Lesson 4: Badlands of South Dakota

Objectives:
• Describe the landscape and climate of the Badlands 67 million years ago
• Define erosion and describe the way it changes the land
• Define prairie and describe the types of life that live there
• Explain why the climate of the Badlands changed

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Lesson 5: Bountiful Midwestern Farms (two-day lesson)

Objectives:
• Explain why the Midwest is an important agricultural region
• Explain why some farmers irrigate their crops
• Identify the rainfall in the Midwest and explain how it affects the growth of crops
• List 10 crops grown in the Midwest
• Identify some crops grown in the Central Plains and the Great Plains

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Lesson 6: The Ojibwa

Objectives:
• Describe early Ojibwa culture
• Describe the ways Ojibwa culture has changed since the mid-1600s

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Lesson 7: Use a Search Engine on the Internet

Objectives:
• Use a search engine to find information on the Internet

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Lesson 8: The Fur Trade (two-day lesson)

Objectives:
• Describe why the French came to the Midwest in the 1600s
• Identify the roles of Louis Jolliet and Jacques Marquette in the fur trade
• Explain the role fur trading played in the development of towns in the Midwest

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Lesson 9: Building Farms

Objectives:
• Explain some events that forced Native American tribes in the Midwest to give up their land
• Compare and contrast a home built of sod and one built out of logs
• Explain the difficulties settlers faced in farming the land and their ultimate success
• Explain how John Deere became an entrepreneur

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Lesson 10: Hub of the Nation

Objectives:
• Describe Cahokia as the early trading center of the Midwest
• Identify the goals of the Lewis and Clark expedition
• Identify the role of the steamboat in shipping
• Explain the role that the government played in developing superhighways that became the interstate highway system
• Describe the advantages of railroads as compared to steamboats

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Lesson 11: The Midwest (two-day lesson)

Objectives:
• Compare and contrast two different groups that settled in the Midwest
• Explain how the people of the Midwest used the land and resources of the region

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Lesson 12: Lewis and Clark Expedition

Objectives:
- Identify the goals of the Lewis and Clark expedition
- Analyze information by identifying cause-and-effect relationships

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Lesson 13: Unit Review

Objectives:
- Analyze the meaning of the work song, "I've Been Working on the Railroad"

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Lesson 14: Unit Test

Unit 2: The Southwest

In this unit, your student will learn about the diversity of natural beauty that the Southwest region of the United States offers by taking a look at deserts, canyons, oil fields, and land features associated with different climate regions. He will learn how many of these geographic features have attracted many people of the past and present to the region. He will also understand how the Southwest region of the United States continues to grow today.

Objectives:
- Explain how the geographic features of the Southwest have influenced Southwestern culture
- Discuss the contributions of different groups who have lived in the Southwest
- Explain the importance of cattle ranching to the development of the Southwest
- Explain how people have adapted to the climate and geography of the region

Lesson 1: Drawing Conclusions

Objectives:
- Interpret print and visual material by drawing conclusions

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Lesson 2: A Land of Canyons

Objectives:
- Describe how the Grand Canyon was carved out by erosion caused by the Colorado River
- Describe how erosion by water, wind, and sand continues to shape the Grand Canyon
- Explain that the Grand Canyon is a magnificent landform that provides beauty and adventure
- Explain why the Grand Canyon has been made a national park

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Lesson 3: Making Generalizations

Objectives:
- Interpret information by making generalizations

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Lesson 4: Climates in the Southwest (two-day lesson)

Objectives:
- Describe different climates found in the Southwest
- Describe how the saguaro has adapted to a desert climate
- Explain why the saguaro is important to desert animals
- Compare and contrast climates and vegetation in different regions of the world

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Lesson 5: Oil and Technology

Objectives:
- Identify a nonrenewable resource in the Southwest
- Describe how the technology of the Southwest has impacted the United States

Lesson 6: The Navajo (two-day lesson)

Objectives:
- Describe the early culture of the Navajo people
- Describe The Long Walk
- Explain how the Navajo Council governs the Navajo Nation

Lesson 7: Identifying Primary and Secondary Sources

Objectives:
- Use primary and secondary sources to acquire information

Lesson 8: Spanish Influence

Objectives:
- Describe Spanish influence in the Southwest
- Describe the effects missionaries had on some Native Americans

Lesson 9: Ranches and Drivers

Objectives:
- Explain how cattle raising helped the economy of the Southwest develop
- Describe the roles of cowboys and cowgirls in the Southwest
- Identify the route of the Chisholm Trail and explain the role it played in the cattle trade
- Contrast ranching in the Southwest in the past with ranching in the present
- Describe life on ranches and cattle trails
- Explain how the work of cowboys and cowgirls has changed over time

Lesson 10: Living in the Desert (three-day lesson)

Objectives:
- Explain how irrigation has affected the economy of the Southwest
- Describe how air conditioning has impacted the economy of the Southwest
- Identify the technological contributions of inventors such as Willis Haviland Carrier

Lesson 11: Issues and Viewpoints

Objectives:
- Identify the historical significance of Route 66 to the Southwest

Lesson 12: Unit Review

Objectives:
- Review the main ideas and vocabulary of the unit
Unit 3: The West

In this unit, your student will learn about the geographic features of the Western region of the United States by taking a close look at its various mountain chains, diverse climates, and variety of rich resources. She will learn about Native Americans who settled in the region. She will also learn how the area appealed to many people, which led to later migration and settlement by explorers, missionaries, farmers, business people, and tourists.

Objectives:

- Describe the geographic features of the West
- Compare and contrast the climates of Western states
- Identify the natural resources of the West
- Trace the cultural development of the West
- Identify and describe the different communities established in the West

Lesson 1: Compare and Contrast

Objectives:

- Analyze printed information by comparing and contrasting

Lesson 2: A Land of Mountains

Objectives:

- Identify the largest system of mountains in the United States
- Compare and contrast mountain ranges of the West
- Identify mountain ranges in the West and tell where they are located
- Compare geysers to volcanoes

Lesson 3: Climates in the West (two-day lesson)

Objectives:

- Compare and contrast the climates of Hawaii and California
- Name the different climates of the West and give an example of each
- Identify states in the West with extreme weather
- Explain how the rain shadow works

Lesson 4: Resources of the West (two-day lesson)

Objectives:

- Identify some resources of the West
- Identify places where agricultural products are grown in the West
- Locate areas of the West that have important fishing industries
- Explain how people benefit from the resources of the West

Lesson 5: The Tlingit

Objectives:

- Write a summary of traditional Tlingit life
- Describe how the Tlingit make use of natural resources
- Compare and contrast Tlingit potlatches held in the past and today
- List details of modern Tlingit life
- Analyze cultural symbols and traditions of the Haida, the Moche, and the Incas

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Lesson 6: Exploration and Growth (two-day lesson)

Objectives:
- Draw a conclusion about changes in the West in the 1800s
- Explain why various groups explored the West
- Describe the Gold Rush of 1848 and explain how it affected the West
- Explain how a boom town might become a ghost town
- Explain when and how various territories of the West gained statehood
- Identify important inventors such as Levi Strauss and describe their accomplishments

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Lesson 7: Map Adventure: In Search of Gold

Objectives:
- Read and interpret maps

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Lesson 8: Understanding Longitude and Latitude

Objectives:
- Use latitude and longitude to find locations on maps and globes

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Lesson 9: Business and Pleasure (two-day lesson)

Objectives:
- Compare and contrast the cities of Los Angeles and Salt Lake City
- Name some of the industries found in Los Angeles, Seattle, and Salt Lake City
- Explain how climate can affect tourism in selected western cities
- Identify products that the United States exports to and imports from the Pacific Rim countries

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Lesson 10: Citizen Heroes

Objectives:
- Identify individuals such as Thomas Bradley who exemplify good citizenship

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Lesson 11: Unit Review

Objectives:
- Review the main ideas and vocabulary of the unit

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Lesson 12: Unit Test
PENNSYLVANIA STATE
HISTORY 4
Pennsylvania State History 4

This course offers an introduction to Pennsylvania state history. The student will trace the history of the state from its earliest inhabitants up through the present time. The course focuses on the state’s geography, history, economy, culture, and government. Students will be introduced to skills such as recognizing change and continuity over time, comparing and contrasting, synthesizing information from multiple sources, and identifying cause and effect.

Unit 1: Geography

In Unit 1, you’ll explore the geography and early peoples of Pennsylvania. You’ll learn about different regions of Pennsylvania, use different types of maps, identify natural resources in the state, and compare and contrast two Native American tribes from Pennsylvania. Finally, you will discuss with other students what you learned about Pennsylvania.

Help direct Boone to three geographically unique points of interest in Pennsylvania. In Unit 1, you’ll create a brochure, or set of pictorial postcards, to guide Boone’s exploration.

Objectives:
- Explore the five themes of geography
- Interpret information about Pennsylvania's geography using a variety of maps
- Explain how humans impact the environment
- Compare and contrast the cultures of indigenous groups
- Synthesize information about the culture of the native inhabitants of the state through the use of multiple resources

Lesson 1: Introduction to the State of Pennsylvania

Objectives:
- Review prior knowledge of Pennsylvania history
- Identify state symbols
- Learn the basis for the founding of Pennsylvania

Lesson 2: Geographic Tools

Objectives:
-Explore five themes of geography
-Describe how maps are used to learn about geography
-Identify different types of maps and explore how they are used in different contexts

Lesson 3: Pennsylvania's Geography: Location, Regions, Places

Objectives:
-Identify the physical characteristics of Pennsylvania's regions and explain how these features affect the state
-Draw conclusions on state geography based on interpretation of various maps and regions (physical, resources, etc.)

Lesson 4: Pennsylvania's Environment and Natural Resources

Objectives:
-Identify issues that show human interaction with the environment
-Explain how humans impact the environment in Pennsylvania
-Understand the importance of major water resources and other natural resources

Lesson 5: Pennsylvania's Early People (two-day lesson)

Objectives:
-Compare and contrast the culture of two or more indigenous groups (prior to the arrival of Europeans).
-Synthesize information about the culture of the native inhabitants of the state through the use of multiple resources
-Explain how the Native Americans used natural resources
-Describe the relationship between Native Americans and the land
Lesson 6: Unit Review and Quiz

Objectives:
- Review important facts about Pennsylvania’s geography and early history
- Consider how geography affects daily life
- Take a unit quiz

Unit 2: History

In Unit 2, your student will explore Pennsylvania’s rich history from early exploration through World War II. The study of early exploration will include the impact on the Native American peoples who inhabited the land, early settlement, and establishment as a British colony by William Penn. Your student will examine Pennsylvania’s role in the Revolutionary War, influential figures who shaped our new nation, and the impacts of the Civil War and World War II on the state.

Your student will also help Prescott to identify, research, and present one influential person from Pennsylvania to meet the portfolio requirement for this unit!

Objectives:
- Identify the economic, geographic, and religious motives of migration to the Americas and settlement in the state
- Trace the course of events in the exploration, settlement and expansion of Pennsylvania
- Describe the living conditions and daily life and how it changed over time, including how Pennsylvanians’ lives were affected by various wars
- Identify key figures who contributed to the establishment and growth of Pennsylvania
- Learn about how Pennsylvania helped to shape our nation

Lesson 1: Explorers and Settlers in Pennsylvania

Objectives:
- Identify the economic, geographic, and religious motives of migration to the Americas and settlement in the state
- Trace the course of events in the exploration and settlement of the state
- Describe the living conditions and daily life in the early settlements and cities of the state

Lesson 2: Native Americans and European Settlers

Objectives:
- Explain how European settlements impacted Native American societies
- Describe the relationship between Native Americans and the colonists
- Identify different perspectives of the different cultural groups within the colonies

Lesson 3: Pennsylvania in the Revolutionary War Era (two-day lesson)

Objectives:
- Trace the course of events that led to the establishment of Pennsylvania
- Identify key figures who contributed to the establishment and growth of Pennsylvania
- Learn more about how Pennsylvania shaped our nation and the role of the federal government
- Understand the role of Pennsylvania in helping United States gain independence from Great Britain

Lesson 4: Pennsylvania and the Civil War (two-day lesson)

Objectives:
- Understand events that led up to the Civil War
- Describe the impact of the Civil War on the people of Pennsylvania
- Explain Pennsylvania's role before, during, and after the Civil War

Lesson 5: Pennsylvania and World War II (two-day lesson)

Objectives:
- Describe the causes of World War II
- Explain how World War II affected Pennsylvanians
Lesson 6: Unit Review and Quiz

Objectives:
- Review important facts about Pennsylvania's history
- Consider how many events in history affected the lives of people in Pennsylvania
- Take the unit quiz

Unit 3: Economy

In unit 3, your student will learn about the economy of Pennsylvania, exploring how it has changed over time. Economic principles such as producer, consumer, goods, services, needs, and wants will be examined. Your student will also learn about key industries and the role that technology has played in the economy of the state. Finally, as part of the portfolio activity, your student will evaluate a business model, complete a business model analysis, and conclude whether the business would be successful in his community.

Objectives:
- Describe the major characteristics of Pennsylvania’s economy and understand how its economy has changed
- Understand and examine basic economic principles, such as producer, consumer, goods, services, needs, and wants
- Examine and analyze the role of past and present technology in Pennsylvania’s economy
- Explain key industries in Pennsylvania and how have they changed over time

Lesson 1: An Introduction to Pennsylvania’s Economy

Objectives:
- Identify the key economic industries in the state
- Describe the roles of producers and consumers
- Describe the difference between goods and services
- Evaluate the difference between basic needs and wants

Lesson 2: Pennsylvania’s Economic Changes

Objectives:
- Discuss basic ways the economic system works
- Describe factors that have changed the economy within Pennsylvania
- Evaluate how Pennsylvania’s economy has changed

Lesson 3: Railroads and Canals

Objectives:
- Trace the course of technological change in the state during the second Industrial Revolution
- Examine how canals and railroads changed the way of life for Pennsylvanians
- Identify how canals and railroads affected Pennsylvania’s economy

Lesson 4: Technological Change in Pennsylvania (two-day lesson)

Objectives:
- Compare and contrast technology of the past and technology today
- Explain how technological innovations changed life within Pennsylvania

Lesson 5: Unit Review and Quiz

Objectives:
- Identify what factors affect the economy in Pennsylvania
- Describe factors that bring about economic changes
- Explain different industries in Pennsylvania and how have they changed over the years

Unit 4: Culture

In unit 4, your student will explore the culture of Pennsylvania. Culture includes the values, beliefs, food, and dress of a particular group, but it also includes the performing arts as well. The unit will cover cultural awareness and diversity among cultures. Your student will select...
a cultural artifact that reflects the behaviors, values, and traditions shared by a group in Pennsylvania to submit for her portfolio assessment.

Objectives:
- Explain why having cultural awareness can help you be a better citizen
- Identify some of the different cultural influences evident in your community
- Explore some of the most famous landmarks in Pennsylvania and their significance
- Identify different Pennsylvania traditions and celebrations
- Describe the different kinds of art found in Pennsylvania and the differences among them

Lesson 1: Performing and Visual Arts in Pennsylvania

Objectives:
- Describe the different arts found in Pennsylvania
- Explain some of the key differences found in different forms of art

Lesson 2: Cultural Diversity in Pennsylvania

Objectives:
- Describe what it means to be culturally aware
- Explain why having cultural awareness can help you be a better citizen
- Identify practices that demonstrate cultural awareness

Lesson 3: Pennsylvania's Traditions and Celebrations

Objectives:
- Identify different Pennsylvania traditions and celebrations

Lesson 4: Pennsylvania Landmarks (two-day lesson)

Objectives:
- Explore some of the most famous landmarks in Pennsylvania
- Describe what makes landmarks special or unique
- Explain historical significance of Pennsylvania's landmarks

Lesson 5: Unit Review and Quiz

Objectives:
- Describe performing and visual arts in Pennsylvania
- Explain some of the key differences found in different kinds of art
- Identify different Pennsylvania traditions and celebrations
- Identify and describe historical landmarks in Pennsylvania
- Explain the importance of cultural awareness

Unit 5: Government

In this unit, your student will explore Pennsylvania’s government. He will learn about the different levels of government (federal, state, and local), with a major focus on key leaders and responsibilities at the state level. Additionally, he will explore the rights and responsibilities of citizens and how the government helps meet the needs of its citizens. Finally, your student will complete the final component of the portfolio assessment, identifying an issue in his community and proposing solutions to help solve the issue.

Objectives:
- Identify the roles of the three branches of government
- Explain how the branches of government work together to serve the needs of citizens
- Describe key positions of authority within the state government
- Explain why society needs rules and laws
- Identify positions of authority in Pennsylvania’s state government

Lesson 1: Introduction to Pennsylvania Government

Objectives:
- Explain the structure of Pennsylvania’s government
- Describe the different responsibilities of the three branches of government
- Explain how the three branches of government work together
Lesson 2: State and Local Government in Pennsylvania

Objectives:
- Recognize how local government differs from the state government
- Explain the difference between rules and laws
- Describe how local government meets community needs

Lesson 3: Influential People in State Government

Objectives:
- Identify positions of authority in state government
- Describe some of the services performed by different positions
- Explain the voting process

Lesson 4: Becoming a Responsible Citizen

Objectives:
- Explain what it means to be a responsible citizen
- Describe the rights of citizens as they relate to freedom, democracy, justice, and equality

Lesson 5: Unit Review and Quiz (two-day lesson)

Objectives:
- Identify the roles of the three branches of government
- Explain how the branches of government work together to serve the needs of citizens
- Describe some key positions of authority within the state government
- Explain why we need rules and laws
SOCIAL STUDIES 5 A
Social Studies 5 A

In this course, the student will trace United States history from the pre-Columbian (before 1492) period to the War of 1812. This course takes both a thematic and chronological approach to U.S. history. The course begins by describing the geography and culture of the United States. The course emphasizes the struggles and triumphs in our nation’s history. Biographies, short stories, primary sources, and songs highlight the roles that individuals have played in the economic, social, and political growth of our nation. The course textbook is Scott Foresman’s The United States. Textbook features such as Citizen Heroes, Issues and Viewpoints, Then and Now, and Here and There help build skills of historical analysis. Multimedia resources, including Teachlet® tutorials, videos, and interactive websites, enhance and support the content. The student will learn geographic concepts such as place, location, and human interaction with the environment. Geography skills lessons are incorporated throughout the course.

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Constitution Day (L)

Objectives:
- Explain the role of Independence Hall in United States history
- Explain the importance of the Declaration of Independence and the Constitution

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Unit 1: Early Life, East and West

In this unit, your student will learn about the migration of large groups of people many years ago. He will focus on how past Native American and European groups moved to and settled in different regions throughout the Americas. He will also understand those factors that encouraged Europeans to travel to unknown, distant places, far from Europe.

Objectives:
- Describe settlements in North America prior to European settlement
- Explain how Native American groups adapted to their environment
- Describe the cultural characteristics of Native American groups in North America
- Describe trade between Europe, Africa, and Asia
- Identify course of events that sparked European exploration

Lesson 1: Migration to the Americas

Objectives:
- Explain why and how early people migrated from Asia to the Americas
- Describe how the first Americans lived during the Ice Age
- Identify how the way of life of the first Americans changed as the climate became warmer

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Lesson 2: Chart and Graph Skills

Objectives:
- Interpret information about the climate of a place
- Interpret information in a graph

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Lesson 3: Early American Cultures

Objectives:
- Explain why early people living east of the Mississippi River built mounds
- Explain how the Anasazi were able to farm in the desert
- Identify ways the Inuit adapted to life in the cold climate of the Arctic

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Lesson 4: The Rise of Empires (two-day lesson)

Objectives:
- Identify the reasons for the development of the Mayan civilization
- Describe how the Aztec Empire grew
- Explain how roads helped unite the Incan Empire

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Lesson 5: The Eastern Woodlands

Objectives:
- Explain how decisions were made in the Iroquois League
- Describe how people of the Eastern Woodlands used forest resources
- Analyze the Iroquois relationship with nature
- Relate how some Iroquois customs are kept alive today

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Lesson 6: The Great Plains

Objectives:
- Describe the way of life of people in the Great Plains cultural region
- Analyze the effect of the horse on the lives of the Cheyenne
- Identify where in the United States the Cheyenne live today

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Lesson 7: Research and Writing Skills

Objectives:
- Use the Internet to conduct research and acquire information

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Lesson 8: The Southwest Desert

Objectives:
- Describe the environment of the Southwest Desert cultural region
- Explain how and where the Hopi built their homes
- Describe a ceremony that honored kachinas
- Identify where in the United States the Hopi live today

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Lesson 9: The Northwest Coast (two-day lesson)

Objectives:
- Analyze the purpose of the potlatches
- Explain the role of shamans in Kwakiutl culture
- Compare the Kwakiutl population of 300 years ago to today

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Lesson 10: Traveling Asia's Silk Road

Objectives:
- Explain the causes and effects of Marco Polo's journey
- Identify the location and importance of the Silk Road
- Relate the explorations of Zheng He to China's desire to trade
- Summarize how trade led to greater ties among people of different continents

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Lesson 11: Africa's Trading Empires

Objectives:
Lesson 12: European Explorers (two-day lesson)

Objectives:
- Summarize the efforts of Europeans to explore lands far from Europe
- Describe the importance of the Renaissance and relate it to advances in navigation
- Identify the effects of Prince Henry the Navigator's efforts to explore Africa

Lesson 13: Unit Review

Objectives:
- Identify significant examples of literature from various periods in U.S. history
- Explain how examples of literature reflect the times during which they were written
- Describe details about an early culture

Lesson 14: Unit Test

Unit 2: Connections Across Continents

In this unit, your student will learn how European exploration led to settlements along North America’s east coast. She will first learn how Christopher Columbus’s journeys led to the establishment of Spanish colonies in the Americas with settlements by the English, French and Dutch to soon follow. She will also understand how European settlement affected Native Americans and the worldwide impact of the Columbian exchange.

Objectives:
- Discuss the significance of Columbus’s voyages
- Explain the impact of the Columbian Exchange on world trade and culture
- Explain how American settlements impacted European nations
- Describe the conditions that motivated Europeans to develop colonies in the Americas
- Describe conditions in early English settlements

Lesson 1: The Voyages of Columbus

Objectives:
- Explain the purpose of Columbus’s voyages to the Americas and describe his first encounters with the Taino
- Define the Columbian Exchange and explain its causes and effects
- Explain the impact of Columbus's voyage on the Americas

Lesson 2: Map and Globe Skills

Objectives:
- Explain the purpose of latitude and longitude
- Use latitude and longitude to locate points on a map

Lesson 3: Different Worlds Collide

Objectives:
Lesson 4: Life in New Spain (two-day lesson)

Objectives:
- Summarize the sequence of events involved in Spain's search for gold in North America in the early to middle 1500s
- Describe the structure of society in New Spain
- Determine the effects of the Spanish conquests on native peoples
- Explain the points of view of Spanish landowners regarding slavery

Lesson 5: Hard Times in Virginia

Objectives:
- Explain why the English founded a colony on Roanoke Island
- Interpret the reasons for the conflict between Spain and England
- Analyze the problems the first Jamestown colonists encountered and how they solved them
- Describe the type of government set up in the Virginia colony

Lesson 6: New European Colonies

Objectives:
- Analyze information by identifying cause-and-effect relationships
- Evaluate the impact of the search for the Northwest Passage on the establishment of French and Dutch settlements in North America
- Explain the factors responsible for the founding and growth of New France and New Amsterdam

Lesson 7: The First Colonies

Objectives:
- Describe the motivations of the Pilgrims in coming to North America
- Summarize the difficulties encountered by the Pilgrims on their journey and in establishing Plymouth colony
- Describe how the Native Americans helped the Pilgrims and the significance of their Thanksgiving celebration
- Explain how the Puritans applied the experiences of earlier English colonists to the growth of Massachusetts Bay colony

Lesson 8: Thinking Skills

Objectives:
- Distinguish facts from opinions

Lesson 9: The 13 Colonies (two-day lesson)

Objectives:
- Compare and contrast the geography of the New England, Middle, and Southern Colonies
- Summarize the impact of religion on the founding of the New England Colonies
Lesson 10: Unit Review

Objectives:
• Identify the contributions of significant individuals during the period of early European exploration and colonization of the Americas
• Analyze information by identifying the sequence of events
• Use primary sources to acquire information

Lesson 11: Unit Test

Unit 3: Colonial Life in North America

In this unit, your student will learn how resources in the Southern, Middle, and Northern colonies helped each region prosper. He will recognize the colonists’ desire to seek additional opportunities by moving to the lands west of the colonies. He will also study the causes and effects of the French and Indian War.

Objectives:
• Describe the economic development of the English colonies
• Compare and contrast the different regions in the English colonies
• Describe conditions in the colonies
• Explain the causes and effects of the spread of slavery in the colonies
• Identify the causes and effects of the French and Indian War

Lesson 1: Working and Trading

Objectives:
• Analyze the advantages and disadvantages of working as an apprentice
• Identify the main products of each colonial region
• Describe a common triangular trade route
• Compare the different types of jobs available to colonists

Lesson 2: Research and Writing Skills

Objectives:
• Distinguish news articles from feature articles
• Identify important information in newspaper articles

Lesson 3: Cities, Towns, and Farms

Objectives:
• Describe some of Benjamin Franklin’s important contributions to the colonies
• Analyze the design of New England towns
• Identify the types of crops raised on plantations
• Compare and contrast life in cities, towns, and farms

Lesson 4: Everyday Life in the Colonies

Objectives:
• Explain what it was like to attend school in the colonies
• Describe some examples of colonial literature and newspapers
• Analyze the causes of religious diversity in the colonies
• Identify foods that were popular in the colonies
Lesson 5: Slavery in the Colonies (two-day lesson)

Objectives:
• Compare slavery in different regions of the colonies
• Describe skills that enslaved people brought to the colonies
• Explain how enslaved Africans were able to keep their traditions alive
• Analyze ways in which people resisted slavery

Lesson 6: The Spanish Move North

Objectives:
• Explain Spain’s reasons for wanting a colony in Florida
• Describe the early Spanish colonies in New Mexico
• Analyze the causes and effects of the Pueblo Revolt

Lesson 7: French Explore the Mississippi

Objectives:
• Identify ways in which French settlers learned from Native Americans
• Analyze reasons the French explored the Mississippi River
• Explain how La Salle’s explorations led to the expansion of New France
• Relate the location of New Orleans to its success as a port city

Lesson 8: Map and Globe Skills

Objectives:
• Compare and use scales to measure distance on maps

Lesson 9: The French and Indian War

Objectives:
• Identify the causes of conflicts over land among the British, French, and Native Americans
• Describe the beginning of the French and Indian War
• Explain how the British were able to win the French and Indian War
• Analyze the major effects of the French and Indian War

Lesson 10: Unit Review

Objectives:
• Identify the contributions of significant individuals during the colonial period
• Analyze information by identifying similarities and differences in information
• Use primary sources to acquire information

Lesson 11: Unit Test

Unit 4: The American Revolution

In this unit, your student will learn how British rule resulted in conflict with the colonists. She will learn about the political and economic issues between Great Britain and the colonies that ultimately led to the American Revolution. She will trace the course of the war and its impact on the colonies.
Objectives:
- Identify the sources of tension between Great Britain and the 13 English colonies
- Identify the contributions of significant individuals during the period of the American Revolution
- Analyze information by identifying cause-and-effect relationships
- Describe the significance of the Declaration of Independence
- Identify the perspectives of Loyalists and Patriots

Lesson 1: Trouble over Taxes

Objectives:
- Identify the causes of the Stamp Act and the Townshend Acts
- Identify the contributions of significant individuals during the revolutionary period, including the Sons of Liberty and the Daughters of Liberty
- Explain how British taxes led to greater cooperation among the colonies
- Evaluate the effects of colonists' protests

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Lesson 2: The Colonists Rebel

Objectives:
- Analyze the causes and effects of events prior to the American Revolution, such as the Boston Tea Party
- Identify the goal of the Committees of Correspondence
- Explain the Intolerable Acts
- Identify events (causes) in Boston and their effects on the relationship between the colonies and Britain
- Differentiate between the political ideas of Patriots and Loyalists

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Lesson 3: Research and Writing Skills

Objectives:
- Use primary sources to acquire information

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Lesson 4: The Revolution Begins (two-day lesson)

Objectives:
- Identify the effects of the first battles of the American Revolution
- Identify the contributions of significant individuals during the revolutionary period, including Paul Revere
- Identify and describe key events in the American Revolution, including the battles of Lexington, Concord, and Bunker Hill
- Analyze and interpret maps to explain historical events

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Lesson 5: Declaration of Independence

Objectives:
- Describe the decisions made by the Second Continental Congress
- Evaluate the impact of Thomas Paine's Common Sense
- Analyze the main argument in the Declaration of Independence
- Explain why signing the Declaration of Independence was a dangerous act

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Lesson 6: Patriots at War

Objectives:
- Explain how Washington was able to force the British from Boston
• Analyze the causes and effects of American victories at Trenton and Saratoga
• Summarize the contributions of African American patriots
• Describe ways in which women helped support the American Revolution

**Lesson 7: The World Turned Upside Down (two-day lesson)**

Objectives:
• Explain how other nations helped the Continental Army
• Compare the contributions of patriot heroes such as Francis Marion, George Rogers Clark, and John Paul Jones
• Describe how Washington was able to trap the British at Yorktown
• Analyze the significance of the American victory at Yorktown

**Lesson 8: Unit Review**

Objectives:
• Use primary sources to acquire information
• Identify the contributions of significant individuals during the period of the American Revolution
• Analyze information by identifying cause-and-effect relationships

**Lesson 9: Unit Test**

**Unit 5: Life in a New Nation**

In this unit, your student will examine some of the political accomplishments of the new nation. He will learn how representatives from all states met in Philadelphia to adopt a new constitution. He will also learn about the birth of political parties, various efforts taken to expand the political boundaries of the nation westward, and the War of 1812.

Objectives:
• Use primary sources to acquire information
• Identify the contributions of significant individuals during the period following the American Revolution
• Explain the significance of the U.S. Constitution and the Bill of Rights
• Describe the conditions that led to westward expansion
• Explain the causes and effects of the War of 1812

**Lesson 1: A Weak Government**

Objectives:
• List the main goals of the Articles of Confederation
• Identify the weaknesses of the Articles of Confederation
• Describe the causes of Shay's Rebellion
• Explain the purpose of the Northwest Ordinance

**Lesson 2: Debate in Philadelphia**

Objectives:
• Identify the purpose of the Constitutional Convention
• Compare the competing plans for the Constitution
• Describe the Great Compromise
• List the goals of the Constitution

**Lesson 3: Ratifying the Constitution**

Objectives:
• Compare the views of Federalists with those of Antifederalists
• Describe the Bill of Rights
• Describe the government created by the Constitution

Lesson 4: Research and Writing Skills (two-day lesson) 🎨

Objectives:
• Use a research process to gather and report factual information

Lesson 5: Washington as President 🎨

Objectives:
• Describe how President Washington organized the executive branch around the Cabinet
• Explain how political parties emerged in the American government system
• Describe how the location and design of the nation's capital was decided upon

Lesson 6: Jefferson Looks West 🎨

Objectives:
• Explain why and how the United States expanded westward
• Describe the Louisiana Purchase and tell what effect it had on the nation
• Identify reasons for and findings of the Lewis and Clark Expedition

Lesson 7: Map and Globe Skills 🎨

Objectives:
• Interpret information in visuals, including maps
• Use primary and secondary sources, such as visual information, to acquire information

Lesson 8: Another War with Britain 🎨

Objectives:
• Identify reasons why the United States went to war a second time with Britain
• Describe the main battles and the outcome of the War of 1812
• Explain why and how "The Star-Spangled Banner" was written

Lesson 9: Life in a New Nation 🎨

Objectives:
• Identify the contributions of significant individuals during the period following the American Revolution

Lesson 10: Unit Review

Objectives:
• Use primary sources to acquire information
• Identify the contributions of significant individuals during the period following the American Revolution
• Analyze information by drawing conclusions
Social Studies 5 B

In this course, the student will trace United States history from the beginning of the Jackson administration to the 21st century. This course takes both a thematic and chronological approach to U.S. history. The course emphasizes the struggles and triumphs in our nation’s history. Biographies, short stories, primary sources, and songs highlight the roles that individuals have played in the economic, social, and political growth of our nation. The course textbook is Scott Foresman’s *The United States*. Textbook features such as Citizen Heroes, Issues and Viewpoints, Then and Now, and Here and There help build skills of historical analysis. Multimedia resources, including Teachlet® tutorials, videos, and interactive websites, enhance and support the content. The student will learn geographic concepts such as place, location, and human interaction with the environment. Geography skills lessons are incorporated throughout the course.

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Unit 1: A Growing Nation

In this unit, your student will learn how the nineteenth century was marked as a time of change in the United States. She will learn how changes occurred in government, technology, and civil rights. She will also learn how the southern and western regions of the United States changed by the migration of people moving to those regions.

Objectives:
- Use primary sources to acquire information
- Identify the contributions of significant individuals to change and expansion in the United States in the early 1800s
- Analyze information by comparing and contrasting

Lesson 1: The United States Turns Fifty

Objectives:
- Describe the goal of the Monroe Doctrine
- Explain how the United States changed politically in the 1820s
- Describe the causes and effects of the Indian Removal Act of 1830

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Lesson 2: A New Kind of Revolution (two-day lesson)

Objectives:
- Explain how the Industrial Revolution changed the way goods were made
- Describe how new inventions led to increased production of both manufactured and farm goods
- Identify ways in which transportation changed in the United States in the early and middle 1800s

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Lesson 3: Chart and Graph Skills

Objectives:
- Interpret and explain information from a cross-section diagram

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Lesson 4: The Struggle for Reform (two-day lesson)

Objectives:
- Describe the historical movements that influenced the development of the United States
- Identify and analyze groups in the United States that have influenced patterns of national behavior
- Describe characteristics of groups that influenced the early development of the United States
Lesson 5: Settling the South and Texas

Objectives:
- Explain what brought settlers into the new southern frontier
- Explain how the United States gained land from Mexico
- Evaluate the reasons why United States settlers in Texas wanted independence from Mexico
- Analyze the viewpoints of people in the United States who opposed annexation of Texas and who supported it
- Relate the events that led to a United States victory in the Mexican War

Lesson 6: Trails to the West

Objectives:
- Analyze the different reasons people moved west
- Describe life on the Oregon Trail
- Identify the main trails leading west
- Explain the events that led to Mormons moving west

Lesson 7: The Golden State (three-day lesson)

Objectives:
- Identify the effects of the California gold rush on the population and development of California
- Identify routes used by people to travel to California
- Describe the successes, failures, and hardships of California's gold miners
- Describe how the gold rush increased the size and diversity of the California population

Lesson 8: Thinking Skills

Objectives:
- Evaluate the statements in written advertisements
- Identify facts, opinions, and exaggerations in written advertisements

Lesson 9: Unit Review

Objectives:
- Identify the accomplishments of notable individuals, such as Juan Seguin

Lesson 10: Unit Test

Unit 2: War Divides the Nation

In this unit, your student will examine the differences between the Northern and Southern states. He will study how these differences created tension and conflict between the two regions of the country. He will learn how such tension led to the succession of many Southern states. Your student will also understand how constant, ongoing tension escalated to the U.S. Civil War.

Objectives:
- Use primary sources to acquire information
Identify the contributions of significant individuals during the time leading up to and including the U.S. Civil War
Analyze information by using supporting details to determine the main idea

Lesson 1: North and South Grow Apart (two-day lesson)

Objectives:
- Describe the differences between the economies and populations of the North and South
- Identify the role that slavery played in the South in the mid-1800s
- Explain how and why views about slavery differed in the North and South

Lesson 2: Thinking Skills

Objectives:
- Identify facts and opinions in writing
- Consider the experiences of an individual writer and how those experiences may have shaped the writer's ideas
- Describe a writer's point of view

Lesson 3: Resisting Slavery

Objectives:
- Identify ways African Americans resisted slavery
- Describe rebellions of African Americans against slavery
- Explain how the Underground Railroad was used to free enslaved people
- Describe the lives of free African Americans in the North and South

Lesson 4: The Struggle Over Slavery

Objectives:
- Describe the causes and effects of the Missouri Compromise and the Compromise of 1850
- Explain the causes of violence in Kansas in 1854
- Draw conclusions about how Dred Scott and John Brown affected the split between the North and South
- Compare the views on slavery of Abraham Lincoln and Stephen Douglas

Lesson 5: The First Shots Are Fired (two-day lesson)

Objectives:
- Describe the reasons why Southern states seceded from the Union
- Identify the immediate cause of the start of the Civil War
- Describe the goals the North and South hoped to achieve by fighting the Civil War

Lesson 6: The Early Stages of the War

Objectives:
- Identify the resources of the North and South
- Compare the strategies of the North and South in the Civil War
- Describe early battles in the Civil War
- Explain how new military technology affected the way the war was fought
Lesson 7: Life During the War (three-day lesson)

Objectives:
• Compare and contrast life for Northern and Southern soldiers
• Analyze the effect of the Emancipation Proclamation on African Americans
• Describe the contributions of African American soldiers to the Union war effort
• Identify the different ways women contributed to the war effort in the North and South

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Lesson 8: How the North Won

Objectives:
• Describe the events of the Battle of Gettysburg
• Analyze President Lincoln's Civil War goals as expressed in the Gettysburg Address
• Identify the location and results of the major battles of the Civil War
• Explain the reasons for the use of total war and its consequences

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Lesson 9: Map and Globe Skills

Objectives:
• Apply geographic skills to interpret legends and symbols on maps

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Lesson 10: The End of Slavery

Objectives:
• Explain why Congress disagreed with Johnson’s plan for reconstruction
• Analyze the effect of the Reconstruction Acts
• Evaluate the impact of the Thirteenth, Fourteenth, and Fifteenth Amendments
• Describe life for African Americans after Reconstruction

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Lesson 11: Unit Review

Lesson 12: Unit Test

Unit 3: Expansion and Change

In this unit, your student will learn how change impacted human population. She will understand how innovations in transportation influenced settlement of the Western region of the United States, but also created tension between Native Americans and settlers. Your student will also learn how new technologies brought changes to society, including new jobs, cultural change, and immigration.

Objectives:
• Use primary sources to acquire information
• Identify the contributions of significant individuals in the United States during the late-1800s
• Analyze information by sequencing events

Lesson 1: Rails Across the Nation (two-day lesson)

Objectives:
• Analyze the developments that helped link the East and the West
• Explain why the telegraph replaced the Pony Express
• Describe the difficulties faced in building the transcontinental railroad
• Predict how the transcontinental railroad might change the United States

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Lesson 2: Map and Globe Skills

Objectives:

• Interpret information in maps

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Lesson 3: Farmers and Cowboys

Objectives:

• Explain how the Homestead Act worked
• Describe the hardships of farming on the Great Plains
• Analyze the reasons why different groups came to the Great Plains
• Evaluate the causes of the rise and fall of cattle drives

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Lesson 4: War in the West (two-day lesson)

Objectives:

• Describe the ways that transcontinental railroads, farmers, and ranchers changed the Great Plains
• Evaluate the reaction of Plains Indians to changes on the Great Plains
• Compare the struggles of the Lakota and the Nez Percé in the 1870s
• Explain ways in which Native Americans are keeping their traditions alive today

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Lesson 5: Inventions and Big Businesses

Objectives:

• Identify important inventions of Alexander Graham Bell and Thomas Edison
• Explain the significance of the Bessemer steel-making process
• Evaluate the accomplishments of Andrew Carnegie
• Describe the rise of the oil industry in the United States
• Explain how industry changed the American way of life

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Lesson 6: New Americans (four-day lesson)

Objectives:

• Describe several reasons why immigrants came to the United States
• Identify the hardships immigrants faced in American cities
• Explain the reasons labor unions were formed
• Analyze the accomplishments of labor unions in the United States

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Lesson 7: Expansion Overseas

Objectives:

• Evaluate the American decision to purchase Alaska
• Explain how the United States acquired Hawaii
• Describe the events leading up to the Spanish-American War
• Analyze the effects of the Spanish-American War

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Lesson 8: Thinking Skills

Objectives:

• Identify credible sources of information

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Lesson 9: Unit Review

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Lesson 10: Unit Test

Unit 4: The United States and the World

In this unit, your student will learn how the United States increased its involvement in foreign affairs. He will focus on America’s involvement and participation in World War I and World War II. He will also explore the reasons behind the Cold War, and your student will focus on the United States’ involvement during the Cold War era. He will complete an independent research project on one of the major events of the 20th century.

Objectives:
- Use primary sources to acquire information
- Identify the accomplishments of notable individuals who have made contributions to society in civil rights, women's rights, military actions, and politics
- Analyze information by summarizing

Lesson 1: Portfolio: Modern Society (six-day lesson)

Lesson 2: A Time of Reforms (two-day lesson)

Objectives:
- Define who the muckrakers were and explain what they wanted to do
- Identify major reforms that Theodore Roosevelt spearheaded as president
- Explain how and why the United States built the Panama Canal

Lesson 3: Research and Writing Skills

Objectives:
- Interpret information in political cartoons

Lesson 4: World War I

Objectives:
- Describe why and how World War I was fought
- Explain the role of the United States in World War I
- Explain how and when women got the right to vote
- Identify the causes and effects of the Great Migration

Lesson 5: Times of Plenty, Times of Hardship

Objectives:
- Identify the effects of new industrial developments on the nation’s economy
- Describe major developments in American culture during the 1920s
- Explain how the New Deal was created to respond to the Great Depression
- Relate what life was like in the United States during the Great Depression

Lesson 6: World War II (two-day lesson)

Objectives:
- Identify the causes of World War II
• Explain how the United States was drawn into World War II and how it prepared to fight the war
• Describe how the Allies won victory in both Europe and Asia
• Analyze the costs of World War II

Lesson 7: A Dangerous World

Objectives:
• Describe the beginning of the Cold War
• Analyze the American decision to fight in the Korean War
• Explain how Cold War conflicts led to the Cuban Missile Crisis
• Evaluate the causes of the arms race

Lesson 8: Struggle for Equal Rights

Objectives:
• Evaluate the importance of Brown versus Board of Education
• Explain the major events of the Montgomery bus boycott
• Describe the efforts of Martin Luther King, Jr., in the civil rights movement
• Identify the goals of the women’s rights movement

Lesson 9: The Cold War Continues

Objectives:
• Identify some of the major events of the space race
• Analyze major causes and effects of the Vietnam War
• Evaluate President Richard Nixon’s trips to China and the Soviet Union
• Describe the level of Cold War tensions at the beginning of the 1980s

Lesson 10: Map and Globe Skills

Objectives:
• Interpret information from map projections

Lesson 11: Looking Toward the Future

Objectives:
• Describe how relations between the United States and the Soviet Union changed during the 1980s
• Explain how the Cold War ended
• Identify key post-Cold War events, including the Persian Gulf War, the Clinton impeachment, the rise of the Internet, and the struggle against terrorism
• Evaluate a variety of questions about the future of the United States

Lesson 12: Unit Review

Objectives:
• Identify significant examples of music from various periods in U.S. history
• Explain how examples of music reflect the times during which they were written
SOCIAL STUDIES 6 A
Social Studies 6 A

This course explores the question, “What is civilization?” Using Glencoe’s Journey Across Time: The Early Ages, the student will examine the birth of civilization and the transition from hunter-gatherer societies to farming communities and complex civilizations. The student will focus on multiple civilizations in ancient history including Egypt, Mesopotamia, and Greece. Primary sources, short stories, biographies, and art provide the opportunity for the student to recognize multiple perspectives in history. In addition, the student will learn about the role of the historian in uncovering the past. The student will practice historical analytical skills including recognizing bias, interpreting sources, interpreting maps and visual evidence, and distinguishing fact from opinion. Multimedia resources including Teachlet® tutorials, videos, and interactive websites enhance and support the content. The student will learn geographic concepts such as place, location, and human interaction with the environment.

Constitution Day (L)

Objectives:
- Discuss the purpose of the U.S. Constitution
- Explain how ancient civilizations, such as Rome, have influenced the creation of the Constitution

Unit 1: Early Civilizations A

In this unit, you will examine the role of the historian. Focusing on the various tools that historians use to uncover the past, you will learn how the historian is like a detective. You will learn about timelines, maps, and sources that historians analyze to learn more about civilizations and societies. You will trace the origin and development of early hunting and gathering societies along with the Mesopotamian, Assyrian, and Chaldean civilizations. You will also explore how the governments, religions, and cultures of these civilizations are both similar and different.

Objectives:
- Explain how historians measure and organize time
- Identify the tools that historians use to research and record the past
- Describe the causes and effects of the Agricultural Revolution
- Explain how geography influenced early civilizations
- Identify the characteristics of early civilizations

Lesson 1: Timelines

Objectives:
- Tell how historians rely on calendars and the dating of events to measure time

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Lesson 2: How Does a Historian Work?

Objectives:
- Identify and describe the variety of sources historians use to learn about the past

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Lesson 3: History and Geography

Objectives:
- Examine how climate, landforms, and human activities have shaped past events

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Lesson 4: Historical Atlas (two-day lesson)

Objectives:
- Describe how maps give information about the areas of the world at different periods of history

Appendix A.2.d Social Studies Course Guides

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Appendix A.2.d Social Studies Course Guides

Social Studies 6 A
Lesson 5: Links Across Time

Objectives:
- Examine how people and events of the past have left their mark on our world today

Lesson 6: Early Humans

Objectives:
- Explain how Paleolithic people adapted to their environment and invented many tools to help them survive
- Describe how, during the Neolithic Age, people started farming, building communities, producing goods, and trading

Lesson 7: What Is a Civilization?

Objectives:
- Identify features that make up a civilization

Lesson 8: Mesopotamian Civilizations (two-day lesson)

Objectives:
- Explain why civilizations in Mesopotamia began in the valleys of the Tigris and Euphrates Rivers
- Identify the contributions of the Sumerian civilization to later peoples
- Identify what factors contributed to the decline of the Sumerian city-states

Lesson 9: Geography and History: Two Rivers in Mesopotamia

Objectives:
- Identify the historical and geographical importance of the Tigris and Euphrates Rivers

Lesson 10: The First Empire

Objectives:
- Describe how Assyria built a vast empire in Mesopotamia
- Identify the achievements of the Chaldean Empire

Lesson 11: Early Civilizations A Unit Review

Objectives:
- Explain how the first civilizations emerged
- Describe the culture of the ancient civilization in Mesopotamia

Lesson 12: Early Civilizations A Unit Test

Unit 2: Early Civilizations B

In this unit, you will learn about the development of ancient Egyptian and ancient Israelite civilizations. You will also explore how the governments, religions, and cultures of these civilizations are both similar and different. You will learn about the achievements and legacies of both civilizations.

Objectives:
- Trace the development of Egyptian civilization
- Identify important people and events in the history of ancient Israel
Lesson 1: The Nile Valley

Objectives:
• Explain why Egyptian civilization began in the Nile River valley
• Identify the importance of the Nile's floods to the Egyptian civilization
• Describe how Upper and Lower Egypt were united
• Explain the class system in Egyptian society

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Lesson 2: Egypt's Old Kingdom

Objectives:
• Identify the all-powerful pharaohs who ruled the Old Kingdom
• Describe the Egyptian belief in many gods and in life after death
• Describe how the Egyptians built pyramids as tombs for their pharaohs

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Lesson 3: Geography and History: The Earliest Egyptians

Objectives:
• Identify the physical landscape and climate conditions of the Sahara Desert and their impact on settlement and migration

Lesson 4: Ancient Egyptian Literature

Objectives:
• Read and interpret an Egyptian folktale

Lesson 5: The Egyptian Empire

Objectives:
• Describe how Egypt enjoyed a golden age of culture and peace during the Middle Kingdom
• Explain the significance of the New Kingdom, during which Egypt reached its height of power, with pharaohs building a huge empire and great monuments

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Lesson 6: Civilization of Kush (two-day lesson)

Objectives:
• Describe how the Nubians settled to the south of Egypt and built a civilization based on farming and trade
• Explain Kush's emergence as a leading trading power after it learned iron-making skills

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Lesson 7: The Cultures of Ancient Egypt and Kush

Objectives:
• Describe Egyptian society and its values system

Lesson 8: Geography's Influence on Early Civilizations (two-day lesson)

Objectives:
• Explain how geography influenced early civilizations

Lesson 9: The First Israelites

Objectives:
• Explain that the Israelites believed in one God who set down moral laws for his people
• Describe the Israelites' fight with the Canaanites to return to their promised land

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Lesson 10: The Kingdom of Israel

Objectives:
- Describe how the Israelites chose a king to unite them against their enemies
- Explain how King David built an Israelite empire and made Jerusalem his capital city
- Explain how the Israelites were conquered and forced to leave their country

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Lesson 11: Geography and History: The City of Jerusalem

Objectives:
- Identify the impact the physical landforms have on the location of historic temples and palaces, and on practiced traditions

Lesson 12: The Growth of Judaism

Objectives:
- Learn how the Jews continued their religion during their exile in Babylon
- Describe how Jews spread their beliefs to the Greek world and regained control of Judah
- Describe how religion shaped the Jewish way of life
- Examine the connection between the Jewish reaction to Roman rule and the Roman response

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Lesson 13: Ancient Israelite Literature and Culture (two-day lesson)

Objectives:
- Describe the culture and daily life of the Israelites

Lesson 14: Early Civilizations B Unit Review

Objectives:
- Describe the culture of the ancient civilization in Egypt
- Describe the culture of the ancient Israelites and identify their contributions to Western civilization

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Lesson 15: Early Civilizations B Unit Test

Unit 3: The Ancient World A

In this unit, you will trace the origin of the Minoan, Mycenaean, and Greek civilizations and understand how geography impacted the history of each civilization. You will examine the development of Athens’ and Sparta’s civilizations and the contributions that each made. You will also understand how Athens and Sparta overcame attacks from Persia, and how Athens developed into a strong city-state under the leadership of Pericles.

Objectives:
- Discuss the rise of Greek city-states, comparing Athens and Sparta
- Identify the legacy of the ancient Greeks and the spread of Greek culture

Lesson 1: The Early Greeks

Objectives:
- Describe how the geography of Greece influenced Greece’s early civilizations—the Minoan and the Mycenaean
- Learn how colonies and trade spread Greek culture, including the idea of citizenship

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Lesson 2: Sparta and Athens

Appendix A.2.d Social Studies Course Guides
Objectives:
- Explain how tyrants seized control over many city-states
- Explain why the Spartans focused on military rule, while the Athenians were more interested in democracy

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Lesson 3: Persia Attacks the Greeks
Objectives:
- Describe how the Persian Empire united a large territory under a single government
- Explain how Sparta and Athens joined forces to defeat the Persians

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Lesson 4: The Age of Pericles (two-day lesson)
Objectives:
- Explain how Athens became very powerful and more democratic
- Contrast the roles of Athenian men and women
- Tell how Athens and Sparta went to war over control of Greece

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Lesson 5: The Culture of Ancient Greece
Objectives:
- Examine how Greek poetry and fables taught Greek values
- Learn how Greek art and architecture expressed Greek ideas of beauty and harmony
- Describe the Greek belief in gods and goddesses that controlled nature and shaped lives
- Compare Greek drama to entertainment today

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Lesson 6: Geography and History: Seven Wonders
Objectives:
- Identify the location of each of the seven wonders of the ancient world
- Examine the historical significance of two of the seven wonders located in Greece

Lesson 7: Greek Philosophy and History
Objectives:
- Tell how Greek philosophers' ideas are still used today
- Explain how Greeks wrote the first real histories in Western Civilization

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Lesson 8: Alexander the Great (two-day lesson)
Objectives:
- Explain how Philip II of Macedonia united the Greek states
- Describe how Alexander the Great conquered the Persian Empire and spread Greek culture throughout southwest Asia

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Lesson 9: Geography and History: Alexander's March
Objectives:
- Using a map, identify the routes Alexander and his army took in his quest to expand the Greek Empire

Lesson 10: Spread of Greek Culture
Objectives:
• Describe how the Hellenistic cities became centers of learning and culture
• Identify the major discoveries in math and science made by Hellenistic scientists

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Lesson 11: Ancient Greek Literature (three-day lesson)

Objectives:
• Read an example of Greek literature and describe Greek material culture and values

Lesson 12: The Ancient World A Unit Review

Objectives:
• Trace the rise of Greek city-states with an emphasis on Athens and Sparta
• Describe Greek cultural accomplishments and the spread of Greek culture

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Lesson 13: The Ancient World A Unit Test
SOCIAL STUDIES 6 B
Social Studies 6 B

This course explores the question, “What is civilization?” Using Glencoe’s Journey Across Time: The Early Ages, you will examine the birth of civilization and the transition from hunter-gatherer societies to farming communities and complex civilizations. You will focus on multiple civilizations in ancient history including China, India, and Rome. Primary sources, short stories, biographies, and art provide the opportunity to recognize multiple perspectives in history. In addition, you will learn about the role of the historian in uncovering the past. You will practice historical analytical skills including recognizing bias, interpreting sources, interpreting maps and visual evidence, and distinguishing fact from opinion. Multimedia resources including Teachlet® tutorials, videos, and interactive websites enhance and support the content. You will learn geographic concepts such as place, location, and human interaction with the environment.

Unit 1: The Ancient World B

In this unit, you will explore the rise of civilizations in the river valleys of ancient China and ancient India. You will learn about the achievements of each civilization. You will learn the basic principles of Hinduism and Buddhism and trace the development of each religion.

Objectives:
- Describe the early Indian civilizations
- Explain the significance of the development of Hinduism and Buddhism
- Trace the development of civilization in ancient China from the Shang to the Han Dynasties

Lesson 1: India’s First Civilizations (two-day lesson)

Objectives:
- Describe how climate and geography influenced the rise of India’s first civilizations
- Learn how the Aryans conquered India and introduced new ideas and technology
- Describe the caste system introduced by the Aryans

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Lesson 2: Geography and History: The Saraswati

Objectives:
- Describe the physical geography where early settlement occurred
- Identify causes that led to the disappearance of the Saraswati River

Lesson 3: Hinduism and Buddhism

Objectives:
- Explain how Hinduism grew out of the ancient beliefs of the Aryans
- Describe how Buddhism developed and why it appealed to many in India and other parts of Asia

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Lesson 4: India’s First Empires (two-day lesson)

Objectives:
- Learn how the Mauryan dynasty built India’s first great empire
- Explain how the Gupta empire reunited much of northern India
- Identify the important contributions that the Mauryan and Gupta empires made in literature, mathematics, and science

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Lesson 5: Ancient Indian Literature

Objectives:
- Interpret primary sources and literature selections to learn more about early Indian culture

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Social Studies 6 B

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Lesson 6: China’s First Civilizations (two-day lesson)

Objectives:

• Explain how rivers, mountains, and deserts helped shape China's civilization
• Describe why the Shang rulers became powerful
• Describe the Mandate of Heaven and its effect on Chinese rulers' right to rule

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Lesson 7: Life in Ancient China

Objectives:

• Identify the three main social classes of Chinese society: landowning aristocrats, farmers, and merchants
• Explain how three Chinese philosophies, Confucianism, Daoism, and Legalism, grew out of a need for order in China

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Lesson 8: Qin and Han Dynasties (two-day lesson)

Objectives:

• Describe how new inventions during the Han dynasty improved life for all Chinese
• Describe how the Chinese used the Silk Road to carry Chinese goods as far as Greece and Rome
• Make connections between the unrest in China and the spread of Buddhism

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Lesson 9: Geography and History: The Ancient Silk Road (two-day lesson)

Objectives:

• Trace the location of key cities and identify the physical landscape along the Silk Road

Lesson 10: Ancient Chinese Literature (three-day lesson)

Objectives:

• Apply knowledge of innovation in ancient China

Lesson 11: The Ancient World B Unit Review

Objectives:

• Discuss early Indian civilizations and empires, including the development of Hinduism and Buddhism
• Explore China's first civilizations and the rise of the Qin and Han dynasties

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Lesson 12: The Ancient World B Unit Test

Unit 2: New Empires and New Faiths A

In this unit, you will trace the origin, rise, and decline of the Roman Republic and Empire. You will examine Rome’s culture and its primary achievements. You will study Rome’s legacies in government and engineering. You will identify the key people who were responsible for the economic growth and expansion of the Roman Empire. You will examine the causes of the Western Roman Empire’s decline and fall and you will study the rise and legacies of the Byzantine Empire.

Objectives:

• Describe the conditions that led to the rise and fall of the Roman Republic
• Discuss the achievements of the Roman Empire
Lesson 1: Rome's Beginnings (two-day lesson)

Objectives:
- Explain how Rome's geographic location aided its rise to power
- Discuss how the Romans created a republic and carried out conquests by treating the people they conquered fairly

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Lesson 2: Geography and History: Rome's Ideal Location

Objectives:
- Describe how the physical landscape protected and helped develop Rome into a successful empire
- Identify Rome's road system

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Lesson 3: The Roman Republic

Objectives:
- Learn that Rome's republic was shaped by a struggle between wealthy landowners and regular citizens
- Explain how Rome defeated the Carthaginians and took control of the Mediterranean region

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Lesson 4: The Fall of the Republic

Objectives:
- Describe how the military hero Julius Caesar seized power
- Explain why the Roman Republic, weakened by civil wars, became an empire under Augustus

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Lesson 5: The Early Empire (two-day lesson)

Objectives:
- Describe how Augustus's military and political reforms brought an era of peace and prosperity
- Describe how Rome's roads, aqueducts, ports, and common currency made the empire rich

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Lesson 6: Life in Ancient Rome (three-day lesson)

Objectives:
- Discuss how Roman developments in science and engineering, as well as how Roman writers and artists borrowed ideas from the Greeks
- Compare the lives of the different social classes
- Describe the different roles of men and women in the Roman Empire

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Lesson 7: Geography and History: The Rhine River

Objectives:
- Identify how the location of the Rhine River was used as a political boundary and safeguard
- Describe how the Rhine River impacted trade and commerce

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Lesson 8: The Fall of Rome
Objectives:

• Explain how poor leadership, a declining economy, and attacks by Germanic tribes weakened the Roman Empire until Rome fell to invaders in the AD 400s
• Identify the many achievements made by the Romans in government, law, language, and the arts

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Lesson 9: The Byzantine Empire

Objectives:

• Learn how the Eastern Roman, or Byzantine, Empire, grew rich and powerful as the Western Roman Empire fell apart
• Discuss how the policies of Justinian and Theodora made the Byzantine Empire strong
• Describe Byzantine culture, which was based on Roman, Greek, and Christian ideas

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Lesson 10: New Empires and New Faiths A Unit Review

Objectives:

• Describe the rise and fall of the Roman Republic
• Trace the development of the Roman Empire

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Lesson 11: New Empires and New Faiths A Unit Test

Unit 3: New Empires and New Faiths B

In this unit, you will learn about the rise of Christianity and Islam, and study how both religions spread and influenced people and cultures around the world. You will learn about the key people who helped found and spread Christianity and Islam. You will also learn the basic beliefs and practices of each religion.

Objectives:

• Explain the rise of Christianity and the spread of the Christian faith
• Explain the rise of Islam and the spread of Islamic culture

Lesson 1: The First Christians (two-day lesson)

Objectives:

• Compare the different ways that Jews reacted to the Roman rule of Judea
• Explain how Jesus's life and a belief in his resurrection led to a new religion called Christianity

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Lesson 2: Christian Literature (two-day lesson)

Objectives:

• Analyze primary sources and literature samples to learn more about Christianity's influence on culture

Lesson 3: The Christian Church

Objectives:

• Explain why Christianity won many followers and eventually became the official religion of the Roman Empire
• Learn how early Christians set up a church organization and explained their beliefs

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Lesson 4: The Spread of Christian Ideas (two-day lesson)
Lesson 5: Geography and History: San Marino

Objectives:
- Identify the location and size of San Marino
- Describe how mountains brought additional protection and influenced the architectural style of various landmarks

Lesson 6: The Rise of Islam

Objectives:
- Describe how deserts, coastlines, and oases of Arabia helped shape the Arab way of life
- Describe how the prophet Muhammed brought the message of Islam to the people of Arabia
- Explain how the Quran provides guidelines for Muslims' lives and the governments of Muslim states

Lesson 7: Islamic Empires

Objectives:
- Describe how Arabs spread Islam through teaching, conquest, and trade
- Learn why the Muslims split into two groups
- Learn how Turks and Moguls built Muslim empires in Asia, Africa, and Europe

Lesson 8: Muslim Ways of Life (two-day lesson)

Objectives:
- Explain how the success of Muslim traders led to the growth of cities
- Identify the valuable contributions made by Muslims in math, science, and the arts

Lesson 9: Geography and History: The Bedouins

Objectives:
- Analyze the lifestyle of the Bedouins

Lesson 10: Islamic Literature

Objectives:
- Explore Islamic literature to learn more about Islamic material culture and values

Lesson 11: New Empires and New Faiths B Unit Review

Objectives:
- Discuss the beginnings and spread of Christianity
- Explain the beginnings and spread of the religion of Islam

Lesson 12: New Empires and New Faiths B Unit Test
SOCIAL STUDIES 7 A
Social Studies 7 A

In this course, the student will study the history, geography, and culture of the western hemisphere and the historical period of medieval times to today. Prentice Hall’s *Medieval Times to Today* and *World Studies: Western Hemisphere* provide the basis for the course content. In the study of world history, the student will examine political, economic, and social changes from the fifth century to modern times by exploring such topics as the growth of trade, the rise and fall of empires (including the empires in China and Africa), European exploration, and the rise of democracy. The student will make connections between historical events and understand long-term changes and recurring patterns in world history. The student will also examine the relationship between human actions and conditions on Earth. The student will examine such current issues as overpopulation, poverty in developing nations, and problems plaguing cities. All of these issues are studied within the context of world geography.

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Constitution Day (L)

Objectives:
- Discuss the purpose of the U.S. Constitution
- Understand basic terms related to the Constitution

Unit 1: Focus on History, Part I

In this unit, you will explore the history, religion, and cultures of many parts of the world. You will learn about the rise of the Byzantine and Islamic Empires and how their influences spread throughout the globe. You will also study important African kingdoms and trading centers. You will explore the civilizations of South America, Middle America, and North America, and discover how those cultures were influenced by the arrival of European explorers. Finally, you will learn about Asian civilizations, including China, medieval Japan, and the Great Mughal Empire in India.

Objectives:
- Explain how the Byzantine and Islamic Empires grew and how their cultures spread throughout the globe
- Learn about the early history of Africa and examine some of its great civilizations
- Describe the civilizations of the Americas and examine how they were affected by European explorers
- Describe the medieval civilizations of China, Japan, and India

Lesson 1: The Byzantine Empire (two-day lesson)

Objectives:
- Find out how Constantinople and the Byzantine Empire grew powerful
- Discover the achievements of the Age of Justinian
- Learn about the later years of the Byzantine Empire

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Lesson 2: The Beginnings of Islam

Objectives:
- Learn about the Arabian Peninsula, its nomadic people, and its centers of trade
- Find out about the life and mission of the Muslim prophet Muhammad
- Learn about Muslim beliefs

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Lesson 3: The Golden Age of Muslim Civilization (three-day lesson)

Objectives:
- Find out how the religion of Islam spread
- Learn about the golden age of Islam under the rule of the caliphs

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Lesson 4: Africa and the Bantu

Objectives:
• Learn about the physical geography of Africa
• Find out about the Bantu and their movement across the continent

Lesson 5: Kingdoms of West Africa

Objectives:
• Learn about the trading kingdoms of the West African savanna
• Investigate the kingdom of the West African rain forests

Lesson 6: East Africa's Great Trading Centers (two-day lesson)

Objectives:
• Learn about powerful East African civilizations whose cities included Aksum and Lalibela
• Find why the coastal cities of East Africa were important

Lesson 7: South America and the Incas

Objectives:
• Find out about the geography of the Americas
• Learn about the empire established by the Incas of South America

Lesson 8: Cultures of Middle America

Objectives:
• Learn about the Mayan culture of Middle America
• Find out about the powerful Aztec empire

Lesson 9: Cultures of North America (two-day lesson)

Objectives:
• Find out about the Mound Builders who lived in eastern North America
• Learn about the cultures of the Southwest and Great Plains
• Find out about the Woodland peoples of North America

Lesson 10: Golden Ages of China

Objectives:
• Learn about the Golden Age of the Tang dynasty
• Discover the achievements of the Song dynasty, which ruled China after the Tang

Lesson 11: Medieval Japan

Objectives:
• Learn about the geography of Japan
• Discover the changes that occurred during the Heian period of Japanese history
• Find out about feudalism and the rule of the shoguns in Japan
Lesson 12: The Great Mughal Empire in India

Objectives:
- Find out about the geography of the Indian subcontinent
- Learn about the Delhi Sultanate, a period of Muslim rule
- Learn about the founding and achievements of the Mughal Empire

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Lesson 13: Focus on History, Part I Unit Review

Objectives:
- Review for the unit test

Lesson 14: Focus on History, Part I Unit Test

Unit 2: Focus on History, Part II

In this unit, you will explore important events in the history of the world from the Middle Ages up to today. You will learn about life in medieval Europe and explore the powerful influences of kings, the Church, and feudalism. You will also study the causes and effects of the Crusades, the Renaissance, and the Reformation. You will examine how Europeans explored the globe and conquered civilizations in the Americas and Africa. You will also explore the influences of the Enlightenment and the Industrial Revolution. You will also examine the impact of nationalism and imperialism and explore important wars and revolutions of the eighteenth, nineteenth, and twentieth centuries. You will conclude your study with a look at the modern world.

Objectives:
- Examine the social, economic, and religious factors that influenced life in medieval Europe
- Explain how Europeans explored new places and uncovered new ideas about the world
- Explain the political revolutions and revolutions in ideas that took place in Europe in the 1700s and 1800s
- Trace important events in world history from the early 1900s to today

Lesson 1: Feudalism and the Manor System

Objectives:
- Learn when the Middle Ages were and what they were like
- Find out how land and power were divided under feudalism
- Learn how the manor system worked
- Discover what life was like for peasants and serfs

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Lesson 2: The Church and the Rise of Cities

Objectives:
- Learn why the Roman Catholic Church was so important and powerful during the Middle Ages
- Discover the connection between an increase in trade and the growth of towns
- Find out what life was like in a medieval town
- Understand the role of culture and learning in the Middle Ages

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Lesson 3: The Crusades

Objectives:
- Learn about the causes of the Crusades
- Find out about the different Crusades and what they accomplished
- Discover the effects the Crusades had on life in Europe

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Lesson 4: The Power of Kings (two-day lesson)
Objectives:
- Learn about the forces that led to nation building in Europe
- Find out about nation building in England
- Discover how the Hundred Years' War affected England and France

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Lesson 5: The Renaissance and Reformation

Objectives:
- Learn about the Renaissance and why it occurred when and where it did
- Find out about Renaissance art and artists
- Discover how the Reformation changed religious life in Europe

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Lesson 6: The Age of Exploration

Objectives:
- Discover why Europeans set out to explore the world in the 1400s
- Learn how the Portuguese reached India by sailing east and how Columbus reached the Americas by sailing west
- Find out how Magellan's expedition sailed all the way around the world

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Lesson 7: The Age of Powerful Monarchs

Objectives:
- Learn about absolute rule in France
- Find out why the reign of Queen Elizabeth I was a golden age in England
- Discover the accomplishments of strong rulers in Spain and Russia

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Lesson 8: Conquests in the Americas and Africa (two-day lesson)

Objectives:
- Discover how Spanish conquistadors conquered great civilizations in the Americas
- Find out why the African slave trade developed and what its effects were

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Lesson 9: The Enlightenment

Objectives:
- Find out about the Age of Reason and how it grew out of the Renaissance and the Scientific Revolution
- Explore the Enlightenment idea of natural rights
- Learn how the French thinkers called philosophes contributed to the Enlightenment

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Lesson 10: Political Revolutions

Objectives:
- Learn how a power struggle between English kings and Parliament led to the creation of a limited, constitutional monarchy
- Find out how the American Revolution put Enlightenment ideas into practice
- Discover how the French Revolution ended the monarchy in France

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Lesson 11: The Industrial Revolution

Objectives:
Lesson 12: Nationalism and Imperialism (three-day lesson)

Objectives:
- Learn how Napoleon rose to power in France and conquered much of Europe
- Understand the growth of nationalism in Europe
- Find out how imperialist European nations gained control over much of the world

Lesson 13: World War I and the Russian Revolution

Objectives:
- Examine the causes and effects of World War I and the Russian Revolution

Lesson 14: The Great Depression and World War II

Objectives:
- Find out about the Great Depression
- Discover the ways in which World War II affected the world

Lesson 15: The Postwar World

Objectives:
- Learn how the Cold War pitted the United States against the Soviet Union
- Discover how dozens of former colonies gained independence

Lesson 16: The World Today (two-day lesson)

Objectives:
- Learn how modern technology has transformed the world
- Explore how migration, trade, and closer economic ties have linked different parts of the world
- Consider the new challenges that the world will face during your lifetime

Lesson 17: Focus on History, Part II Unit Review

Objectives:
- Review for the unit test

Lesson 18: Focus on History, Part II Unit Test

Unit 3: Focus on Geography, Part I

In this unit, you will begin to explore the study of geography. You will learn about the five themes of geography and discover the tools geographers use. You will also examine the planet Earth as well as climate, weather, and vegetation. Finally, you will look at aspects of human geography, including population, migration, and economic and political systems.

Objectives:
- Describe the five themes of geography and geographers' tools
- Explain planet Earth's structure, climate, and vegetation
Lesson 1: The Five Themes of Geography

Objectives:
- Learn about the study of Earth
- Discover five ways to look at Earth

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Lesson 2: The Geographer's Tools (two-day lesson)

Objectives:
- Find out how maps and globes show information about Earth's surface
- See how mapmakers show Earth's round surface on flag maps
- Learn how to read maps

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Lesson 3: Our Planet, Earth

Objectives:
- Learn about Earth's movement in relation to the sun
- Explore seasons and latitude

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Lesson 4: Forces Shaping Earth

Objectives:
- Learn about the planet Earth
- Explore the forces inside Earth
- Explore the forces on Earth's surface

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Lesson 5: Climate and Weather

Objectives:
- Learn about weather and climate
- Explore latitude, landforms, and precipitation
- Discover how oceans affect climate

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Lesson 6: How Climate Affects Vegetation (three-day lesson)

Objectives:
- Investigate the relationship between climate and vegetation
- Explore Earth's vegetation regions
- Study vertical climate zones

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Lesson 7: Population

Objectives:
- Learn about population distribution
- Explore population density
- Investigate population growth

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Lesson 8: Migration

Objectives:
- Learn about migration, or people's movement from one region to another
Lesson 9: Economic Systems

Objectives:
- Examine different kinds of economies
- Investigate levels of economic development
- Study global trade patterns

Lesson 10: Political Systems (two-day lesson)

Objectives:
- Examine different types of states
- Investigate types of government
- Learn about alliances and international organizations

Lesson 11: Focus on Geography, Part I Unit Review

Objectives:
- Review for the unit test

Lesson 12: Focus on Geography, Part I Unit Test

Unit 4: Focus on Geography, Part II

In this unit, you will continue your study of geography. You will take a closer look at the relationship between humans and the Earth. You will explore culture, society, and cultural change. You will also learn about natural resources, land use, and people’s effect on the environment.

Objectives:
- Explore culture, society and cultural change
- Describe Earth’s natural resources and energy
- Explain humans’ land use and their effect on the environment

Lesson 1: Understanding Culture

Objectives:
- Learn about culture
- Explore how culture has developed

Lesson 2: Culture and Society

Objectives:
- Learn how people are organized into groups
- Investigate language
- Explore the role of religion

Lesson 3: Cultural Change (two-day lesson)

Objectives:
- Explore how cultures change
- Learn how ideas spread from one culture to another

Lesson 4: Natural Resources

Objectives:
- Learn about natural resources

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Appendix A.2.d Social Studies Course Guides

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Lesson 5: Land Use (two-day lesson)

Objectives:
- Study the relation between land use and culture
- Investigate the relation between land use and economic activity
- Explore changes in land use

Lesson 6: People's Effect on the Environment (two-day lesson)

Objectives:
- Investigate how first-level activities affect the environment
- Explore how second and third-level activities affect the environment
SOCIAL STUDIES 7 B
Social Studies 7 B

In this course, the student will study the history, geography, and culture of the western hemisphere. Prentice Hall's World Studies: Western Hemisphere provides the basis for the course content. The student will complete a comprehensive study of the history, geography, and cultures of the United States, Canada, and the countries of Latin America. These countries will be studied with regard to their political divisions, natural resources, economies, population distribution, climates, and landforms. The student will also examine the relationship between human actions and conditions on Earth. The student will examine such current issues as overpopulation, poverty in developing nations, and problems plaguing cities. All of these issues are studied within the context of world geography.

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Unit 1: Build a Regional Background: The U.S. and Canada

In this unit, you will begin your study of the United States and Canada. You will explore the geographical features of the countries of North America. You will also examine the histories of the United States and Canada, from European exploration to independence, to the status of world powers. Finally, you will learn about the cultures of the United States and Canada.

Objectives:
• Explain the physical geography of the United States and Canada and describe how geography affects the people of North America
• Trace the histories of the United States and Canada from European exploration to the present
• Describe the cultures of the United States and Canada

Lesson 1: Land and Water

Objectives:
• Learn where the United States and Canada are located
• Find out about the major landforms of the United States and Canada
• Explore major bodies of water that are important in the United States and Canada

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Lesson 2: Climate and Vegetation

Objectives:
• Learn what climate zones the United States and Canada have
• Identify the natural vegetation zones of the United States and Canada

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Lesson 3: Resources and Land Use (three-day lesson)

Objectives:
• Learn about the major resources of the United States
• Learn about the major resources of Canada

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Lesson 4: The Arrival of the Europeans

Objectives:
• Learn who the first Americans were
• Discover the effects the arrival of Europeans had on Native Americans
• Find out how the United States won its independence from Great Britain

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Lesson 5: Growth and Conflict in the United States

Objectives:

Appendix A.2.d Social Studies Course Guides
Lesson 6: The U.S. on the Brink of Change

Objectives:
• Explore what happened in the United States from 1865 to 1914
• Find out what happened during the World Wars
• Explore the challenges the United States faces at home and abroad

Lesson 7: The History of Canada

Objectives:
• Learn about why France and Britain were rivals in Canada
• Discover how Canada became an independent nation
• Explore how Canada became a world power in the 1900s

Lesson 8: The United States and Canada Today

Objectives:
• Identify the environmental concerns the United States and Canada share today
• Find out about the economic ties the United States and Canada have to each other and to the world

Lesson 9: A Heritage of Diversity and Exchange (two-day lesson)

Objectives:
• Explain how cultural patterns developed in the United States and Canada
• Discuss the cultural patterns that exist today in the United States and Canada

Lesson 10: The United States: A Nation of Immigrants

Objectives:
• Learn about the people of the United States
• Find out about the culture of the United States

Lesson 11: The Canadian Mosaic (two-day lesson)

Objectives:
• Find out about the people of Canada
• Learn about Canadian culture

Lesson 12: The U.S. and Canada Unit 1 Review

Objectives:
• Review for the unit test

Lesson 13: The U.S. and Canada Unit 1 Test

Unit 2: Focus on Countries: The U.S. and Canada

In this unit, you will continue your study of the United States and Canada. You will take a more in-depth look at the geography and history of four regions of the United States: the
Northeast, the South, the Midwest, and the West. You will also explore geographical and cultural characteristics of Canada’s provinces and territories, specifically Ontario and Quebec, the Prairie Provinces, British Columbia, the Atlantic Provinces, and the Northern Territories.

Objectives:
- Describe the geography, culture, and history of the United States’ Northeast, South, Midwest, and West
- Explain the geography, history, and culture of Canada’s provinces and territories

Lesson 1: The Northeast: An Urban Center

Lesson 2: The South: The Growth of Industry

Objectives:
- Learn how the South’s land is important to its economy
- Read about how the growth of industry is changing the South

Lesson 3: The Midwest: Leaving the Farm

Objectives:
- Read about how technology is changing life on farms
- Learn how changes in farming are affecting the development of cities

Lesson 4: The West: Using and Preserving Resources (three-day lesson)

Objectives:
- Learn about the natural resources of the West
- Read about the challenges facing the urban West

Lesson 5: Ontario and Quebec: Bridging Two Cultures

Objectives:
- Read about the seat of the Canadian government in Ontario
- Learn about the French cultural influence in Quebec

Lesson 6: The Prairie Provinces: Canada’s Breadbasket

Objectives:
- Learn why many immigrants came to the Prairie Provinces in the 1800s
- Read about how Canadians celebrate their cultural traditions

Lesson 7: British Columbia: Economic and Cultural Changes

Objectives:
- Find out about the people and cultures of the Canadian West
- Learn what the economy and culture of British Columbia are like

Lesson 8: The Atlantic Provinces: Relying on the Sea (two-day lesson)

Objectives:
- Learn what life is like on the Atlantic coast
- Discover how maritime industries affect the provinces

Lesson 9: The Northern Territories: New Frontiers (two-day lesson)
Objectives:
• Discover what life is like for people in Canada's far north
• Find out about the remote region of the Yukon Territory
• Understand how the new territory of Nunavut was formed

Lesson 10: The U.S. and Canada Unit 2 Review

Objectives:
• Review for the unit test

Lesson 11: The U.S. and Canada Unit 2 Test

Unit 3: Build a Regional Background: Latin America

In this unit you will begin your study of Latin America. You will explore the geographical features of the countries of Latin America. You will also examine the histories of South and Central America, from the height of their early civilizations, to European exploration and conquest, to the achievement of independence. Finally, you will learn about the cultures of Mexico, the Caribbean, and Central and South America.

Objectives:
• Explain the physical geography of Latin America and describe how geography affects the people of Central and South America
• Trace the history of Latin America before European exploration up to the present
• Describe the cultures of Latin American countries

Lesson 1: Land and Water

Objectives:
• Learn where Latin America is located
• Discover the important landforms of Latin America
• Find out how Latin America's waterways have affected the region

Lesson 2: Climate and Vegetation

Objectives:
• Find out what kinds of climates Latin America has
• Learn what factors influence climate in Latin America
• Understand how climate and vegetation influence the ways people live

Lesson 3: Resources and Land Use (two-day lesson)

Objectives:
• Find out what Latin America's most important natural resources are
• Learn why depending on a one-resource economy has been a problem for Latin American nations

Lesson 4: Early Civilizations of Middle America

Objectives:
• Find out what Mayan civilization was like
• Learn how the Aztecs built their empire and understand what kind of society they created

Lesson 5: The Incas: People of the Sun

Objectives:
• Find out how the Incas created their empire
• Understand what Incan civilization was like
- Learn how the descendants of the Incas live today

**Lesson 6: European Conquests**

Objectives:
- Learn why Europeans sailed to the Americas
- Find out how the conquistadors conquered the Aztecs and the Incas
- Understand how the Spanish empire was organized and how colonization affected the Americas

**Lesson 7: Independence (two-day lesson)**

Objectives:
- Learn what events inspired revolutions in Latin America
- Find out how Mexico gained its independence
- Discover how Bolivar and San Martin helped bring independence to South America

**Lesson 8: From Past to Present (two-day lesson)**

Objectives:
- Learn how Latin American caudillos and foreign involvement contributed to the region’s troubled past
- Find out how Latin American nations are struggling to improve their economies and the welfare of their people

**Lesson 9: Cultures of Mexico and Central America**

Objectives:
- Discover the cultural heritage of the people of Middle America
- Find out why many people in this region have been moving away from the countryside

**Lesson 10: The Cultures of the Caribbean (three-day lesson)**

Objectives:
- Find out what ethnic groups make up the people of the Caribbean
- Learn how the different cultures of the region blended to create Caribbean food, music, and celebrations

**Lesson 11: The Cultures of South America**

Objectives:
- Find out what ethnic groups are represented in the four cultural regions of South America
- Learn what life is like in the countryside and in the cities of South America

**Lesson 12: Latin America Unit Review**

Objectives:
- Review for the unit test

**Lesson 13: Latin America Unit 3 Test**
Unit 4: Focus on Countries: Latin America

In this unit, you will continue your study of Latin America. You will take a more in-depth look at the geography and history of several countries that make up Latin America. You will study the Central American nations of Mexico, Guatemala, and Panama. You will also explore the history and current events affecting the people in the Caribbean countries of Cuba, Haiti, and Puerto Rico. Finally, you will examine the South American nations of Brazil, Peru, Chile, and Venezuela.

Objectives:
- Describe the geography, culture, and history of Central America
- Explain the geography, culture, and history of the Caribbean
- Explore the geography, culture, and history of South America

Lesson 1: Mexico: Moving to the City

Objectives:
- Learn what life is like for people in rural Mexico
- Find out why many Mexicans have been moving from the countryside to the cities
- Understand why the growth of Mexico City presents challenges for the people and the environment

Lesson 2: Guatemala: Descendants of an Ancient People (two-day lesson)

Objectives:
- Learn why there is a struggle for land in Guatemala
- Find out how the Mayas lost their land
- Discover how groups are working to improve the lives of Guatemala's indigenous people

Lesson 3: Panama: An Important Crossroads (two-day lesson)

Objectives:
- Find out why people wanted to build a canal across the Isthmus of Panama
- Learn how the Panama Canal was built
- Understand how the canal has affected the nation of Panama

Lesson 4: Cuba: Clinging to Communism (three-day lesson)

Objectives:
- Find out how Cuba’s history led to thousands of Cubans leaving their homeland
- Discover how Cuban exiles feel about their lives in the United States and about their homeland
- Learn what changes have recently come to Cuba

Lesson 5: Haiti: A Democracy in Progress

Objectives:
- Find out how democracy has been threatened in Haiti
- Learn what life is like for the people of Haiti, both in the countryside and in the cities

Lesson 6: Puerto Rico: An American Commonwealth (two-day lesson)

Objectives:
Lesson 7: Brazil: Geography Shapes a Nation

Objectives:
- Learn about the geography of Brazil
- Discover why the rain forests are important to Brazil and to the whole world
- Find out what groups make up the people of Brazil and how they live

Lesson 8: Peru: An Ancient Land Looks to the Future

Objectives:
- Learn how geography has affected the way people live in the three regions of Peru
- Discover what life is like in the cities and towns of the Altiplano

Lesson 9: Chile: Land of Contrasts

Objectives:
- Find out how the geography of Chile creates regions where people live very differently
- Learn how Chile's people live and what products they produce
- Find out how Chile restored democracy

Lesson 10: Venezuela: Oil Powers the Economy (two-day lesson)

Objectives:
- Find out how Venezuela was made wealthy by oil
- Learn how the ups and downs of oil prices affected the economy and people of Venezuela
- Understand how Venezuela is changing

Lesson 11: Latin America Unit Review

Objectives:
- Review for the unit test

Lesson 12: Latin America Unit 4 Test
SOCIAL STUDIES 8 A
Social Studies 8 A

This course offers a broad survey of United States history from the pre-colonial period to the War of 1812. The course examines U.S. political, economic, and social history from a chronological point of view. Throughout the course, the student will make connections between historical events and their impact on the American people and landscape. The student will enhance his social studies skills by completing activities that teach understanding primary sources, reading time lines and graphs, comparing and contrasting, recognizing bias, and more. Lessons are designed to develop the student's abilities to question, read, analyze, interpret, and evaluate different forms of information. The student will also practice geography skills as he explores the evolution of America's geography and its historical impact. Glencoe's The American Republic to 1877 provides the basis for instruction.

The student's grade in Social Studies will include periodic assessments that include quizzes, unit tests, and portfolio assignments. Enrichment activities are optional and will never be assessed.

Constitution Day (L)

Objectives:
- Explain why Americans recognize Constitution Day

Unit 1: Different Worlds Meet

In this unit, you will learn about the people and places that existed in the Americas before the arrival of Europeans. You will examine how these civilizations were affected by European exploration and conquest of the continent. You will also explore the influences of religion and technology on Europeans' exploration of the globe. Finally, you will study the roles of Spain and Portugal on the New World and learn about early European settlements in North America.

Objectives:
- Describe the cultures that lived in North America prior to the arrival of Europeans
- Examine how the civilizations of the Americas were affected by European exploration and conquest
- Describe the factors that brought about European exploration of the globe
- Explain Spain and Portugal's influences on the civilizations of the Americas
- Describe early European settlements in North America

Lesson 1: Early Peoples

Objectives:
- Understand how the first people arrived in the Americas
- Cite the discovery that changed the lives of the early Native Americans

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Lesson 2: Cities and Empires

Objectives:
- Compare the achievements of the Maya, Aztec, and Inca civilizations
- Evaluate the role of religion in early American empires
- Explore how native cultures developed customs based on their physical environments

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Lesson 3: North American Peoples (two-day lesson)

Objectives:
- Explore what early people lived in North America
- Examine how different Native American groups adapted to their environments

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Lesson 4: A Changing World
Objectives:
- Examine how technology made long sea voyages possible
- Explore the factors that allowed great civilizations in Africa to flourish

Lesson 5: Early Exploration

Objectives:
- Explain Portugal's leadership roles in exploration
- Understand Columbus's plan for sailing to Asia

Lesson 6: Spain in America (four-day lesson)

Objectives:
- Evaluate the decline of the Aztec and Inca empires in the Americas
- Explore how Spain governed its empire in the Americas

Lesson 7: Exploring North America (three-day lesson)

Objectives:
- Explain how the Protestant Reformation affected North America
- Evaluate why the activities of early traders encouraged exploration

Lesson 8: Different Worlds Meet Virtual Field Trip

Objectives:
- Explore topics in U.S. history through Web research

Lesson 9: Different Worlds Meet Unit Review and Test (two-day lesson)

Objectives:
- Review material in preparation for the unit test
- Take the unit test

Unit 2: Colonial Settlement

In this unit, you will learn how North America was colonized by European nations. You will explore what life was like in Early English settlements and compare and contrast the colonies in different regions of North America. You will also study the impact of government, religion, and culture on colonists in America. Finally, you will examine the impact of the French and Indian War on England and France's struggle for control of the continent.

Objectives:
- Describe what Early English settlements in North America were like
- Compare and contrast the colonies in different regions of North America
- Examine the impact of government, religion, and culture on English colonists in America
- Describe the impact of the French and Indian War on England and France's struggle for control of the continent

Lesson 1: Early English Settlements

Objectives:
- Identify the crop that saved the people of Jamestown
- Explain how the colonists received political rights

Lesson 2: New England Colonies

Objectives:
- Explain why the Pilgrims and the Puritans came to America
Lesson 3: Middle Colonies

Objectives:
- Explain why the Middle Colonies had the most diverse populations in colonial America
- Identify America's first town planner

Lesson 4: Southern Colonies (two-day lesson)

Objectives:
- Understand why the Southern Colonies were established
- Compare and contrast France’s colony in North America with the English colonies

Lesson 5: Life in the Colonies (three-day lesson)

Objectives:
- Define the triangular trade and explain how it affected American society
- Understand how the regions in the colonies differed from one another
- Understand what the use of enslaved workers increased in the colonies

Lesson 6: Government, Religion, and Culture

Objectives:
- Understand why the Navigation Acts angered the colonies
- Identify the people who had the right to vote in colonial legislatures

Lesson 7: France and Britain Clash

Objectives:
- Explain how wars in Europe spread to the American colonies
- Understand the purpose of the Albany Plan of Union

Lesson 8: The French and Indian War (two-day lesson)

Objectives:
- Explain how British fortunes improved after William Pitt took over direction of the war
- Describe how Chief Pontiac united his people to fight for their land

Lesson 9: Colonial Settlement Virtual Field Trip

Objectives:
- Explore topics in U.S. history through Internet research

Lesson 10: Colonial Settlement Unit Review and Test (two-day lesson)

Objectives:
- Review material in preparation for the unit test

Unit 3: Creating a Nation
In this unit, you will explore the creation of the United States as a new nation. You will examine the reasons colonists demanded independence from England and why they were willing to wage a war to achieve freedom from King George III. You will take an in-depth look at the Revolutionary War and learn about important people of that time. You will also learn about the plans of government the nation's founders experimented with and how they finally agreed on the Constitution. Finally, you will examine the Constitution, the federal government of the United States, and read about the rights and responsibilities of American citizens.

Objectives:
- Explore the origins of the American Revolution and understand the colonists' complaints against England
- Describe the major battles and leaders of the Revolutionary War
- Describe the Articles of Confederation and explain how the nation's founders agreed on the Constitution
- Understand aspects of the United States government, including the Constitution and citizenship

Lesson 1: Taxation without Representation

Objectives:
- Describe why the British had problems in North America after the French and Indian War
- Explain how the colonists responded to unpopular British laws

Lesson 2: Building Colonial Unity

Objectives:
- Identify the causes of the Boston Massacre
- Explain how Britain tried to maintain its control over the colonies

Lesson 3: A Call to Arms

Objectives:
- Identify the events that took place at the Continental Congress
- Describe the early skirmishes of the American Revolution

Lesson 4: Moving Toward Independence (two-day lesson)

Objectives:
- Understand what happened at the Second Continental Congress
- Explore why the Declaration of Independence was drafted

Lesson 5: The Early Years

Objectives:
- Understand why some Americans supported the British
- Explain how the Battle of Saratoga marked a turning point in the war

Lesson 6: The War Continues

Objectives:
- Understand why other nations helped the Patriots
- Describe how Washington’s troops survived the winter at Valley Forge
- Recognize the challenges Americans faced at home as a result of the war

Lesson 7: The War Moves West and South
Lesson 8: The War is Won (two-day lesson)

Objectives:
- Describe how George Washington changed his military strategy
- Explain how the Americans won the Revolutionary War despite many disadvantages

Lesson 9: The Articles of Confederation (five-day lesson)

Objectives:
- Examine how the weaknesses of the Articles led to instability
- Explain how the Confederation Congress dealt with the western lands

Lesson 10: Convention and Compromise

Objectives:
- Describe how the Constitutional Convention broke the deadlock over the form the new government would take
- Understand how the delegates answered the question of representation

Lesson 11: A New Plan of Government (three-day lesson)

Objectives:
- Understand the roots of the Constitution
- Explain how the Constitution limits the power of government

Lesson 12: The Constitution

Objectives:
- Explain why the Constitution is the nation's most important document
- Identify the goals of the Constitution
- Describe the principles that form the basis of the Constitution

Lesson 13: The Federal Government

Objectives:
- Explain the goals of the three branches of government
- Identify the powers of the three branches of government

Lesson 14: Citizens' Rights and Responsibilities

Objectives:
- Identify where the rights of U.S. citizens come from
- Explain the rights and responsibilities of U.S. citizens

Lesson 15: Creating a Nation Virtual Field Trip

Objectives:
- Explore topics in U.S. history through web research
Lesson 16: Creating a Nation Unit Review and Test (two-day lesson)

Objectives:
- Review material in preparation for the unit test

Unit 4: The New Republic Part I

In this unit, you will explore the early years of the American Republic up to 1825. You will learn about early challenges and conflicts faced by the new Union. You will examine the development of the first political parties in the United States. You will also read about the War of 1812 and military struggles with Native Americans as settlers moved west. You will study the factors that made westward expansion possible, such as the Louisiana Purchase, economic growth, and technological innovation. Finally, you will look at the development of regional differences in the United States and examine the foreign policies the nation adopted in the early nineteenth century.

Objectives:
- Examine the role of the first president and the development of political parties in the United States
- Describe the causes and consequences of the War of 1812
- Explain the effect the westward expansion of the United States had on Native Americans
- Describe the factors that made it possible for American settlers to move west
- Explain regional differences in the United States and the nation’s early foreign policy

Lesson 1: The First President

Objectives:
- Describe what actions were taken to launch the new government
- Explain how Hamilton proposed to strengthen the economy

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Lesson 2: Early Challenges

Objectives:
- Understand how the federal government asserted its power in the West
- Examine how the United States tried to stay out of European conflicts

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Lesson 3: The First Political Parties (two-day lesson)

Objectives:
- Describe how political parties got started and what positions they supported
- Explain how John Adams and Thomas Jefferson became candidates of opposing parties in the election of 1796

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Lesson 4: The Republicans Take Power

Objectives:
- Discuss how the election of 1800 was resolved
- Explain how the Supreme Court was strengthened

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Lesson 5: The Louisiana Purchase (two-day lesson)

Objectives:
- Discuss how the United States expanded in the early 1800s
- Review the expeditions of explorers such as Lewis and Clark

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Lesson 6: A Time of Conflict (three-day lesson)
Lesson 7: The War of 1812

Objectives:
- Explain why Tecumseh built a Native American confederacy
- Discuss why the War Hawks wanted to go to war

Lesson 8: The New Republic 1789–1825 Unit Review and Test (two-day lesson)

Objectives:
- Review material in preparation for the unit test
SOCIAL STUDIES 8 B
Social Studies 8 B

This course offers a broad survey of United States history from the end of the War of 1812 to the Reconstruction Era. The course examines U.S. political, economic, and social history from a chronological point of view. Throughout the course, the student will make connections between historical events and their impact on the American people and landscape. The student will enhance his social studies skills by completing activities that teach understanding primary sources, reading time lines and graphs, comparing and contrasting, recognizing bias, and more. Lessons are designed to develop the student's abilities to question, read, analyze, interpret, and evaluate different forms of information. The student will also practice geography skills as he explores the evolution of America's geography and its historical impact. Glencoe's *The American Republic to 1877* provides the basis for instruction.

The student's grade in Social Studies will include periodic assessments that include quizzes, unit tests, and portfolio assignments. Enrichment activities are optional and will never be assessed.

Unit 1: The New Republic Part II

In this unit you will explore the early years of the American Republic up to 1825. You will learn about early challenges and conflicts faced by the new Union. You will examine the development of the first political parties in the United States. You will also read about the War of 1812 and military struggles with Native Americans as settlers moved west. You will study the factors that made westward expansion possible, such as the Louisiana Purchase, economic growth, and technological innovation. Finally, you will look at the development of regional differences in the United States and examine the foreign policies the nation adopted in the early nineteenth century.

Objectives:
- Examine the role of the first president and the development of political parties in the United States
- Describe the causes and consequences of the War of 1812
- Explain the effect the westward expansion of the United States had on Native Americans
- Describe the factors that made it possible for American settlers to move west
- Explain regional differences in the United States and the nation's early foreign policy

Lesson 1: Economic Growth

Objectives:
- Describe how the Industrial Revolution began in the United States
- Describe how the United States changed as it became more economically independent

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Lesson 2: Westward Bound

Objectives:
- Explain how transportation improved in the early 1800s
- Understand how western settlements affected the nation's economy and politics

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Lesson 3: Unity and Sectionalism (two-day lesson)

Objectives:
- Describe why sectional differences grew in the 1820s
- Identify the effect the Monroe Doctrine had on foreign policy

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Lesson 4: The New Republic Virtual Field Trip

Objectives:
- Explore topics in U.S. history through Internet research
Lesson 5: The New Republic Unit Review and Test (two-day lesson)

Objectives:
• Review material in preparation for the unit test

Unit 2: The Growing Nation

In this unit, you will continue to explore the growth of the United States between 1820 and 1860. You will examine challenges and changes to the fragile political system. You will also read about America's continued westward expansion, as well as the effect this had on Native Americans. You will examine the United States' acquisition of new states and territories, including the Oregon Country, Texas, California, and Utah. You will also study the causes and consequences of the United States' war with Mexico. You will compare and contrast the northern and southern regions of the country. Finally, you will examine calls for social reform in the mid-nineteenth century and how ideas about education, women, and slavery changed during this period.

Objectives:
• Describe political and social challenges faced by the United States between 1820 and 1860
• Explain how the United States continued to grow and acquire new states and territories
• Describe the causes and consequences of the Mexican War
• Compare and contrast the North and South

Lesson 1: Jacksonian Democracy

Objectives:
• Explain why the nation's sixth president was chosen by the House of Representatives
• Identify the changes President Jackson brought to the American political system

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Lesson 2: Conflicts Over Land (two-day lesson)

Objectives:
• Understand how Native Americans were forced off their lands in the Southeast
• Explain how President Jackson defied the Supreme Court

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Lesson 3: Jackson and the Bank (two-day lesson)

Objectives:
• Examine the reasons why Jackson wanted to destroy the Bank of the United States
• Understand why the Whigs came to power in 1840

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Lesson 4: The Oregon Country

Objectives:
• Explain why large numbers of settlers headed for the Oregon country
• Understand how the idea of Manifest Destiny contributed to the nation's growth

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Lesson 5: Independence for Texas

Objectives:
• Understand why problems arose between the Mexican government and American settlers in Texas
• Describe how Texas achieved independence from Mexico and later became a state
Lesson 6: War with Mexico

Objectives:
- Explain why Americans began to settle in the Southwest
- Describe how the United States acquired New Mexico and California

Lesson 7: New Settlers in California and Utah (two-day lesson)

Objectives:
- Understand how the hopes of getting rich quick drew thousands of people to California
- Describe how the search for religious freedom led to the settlement of Utah

Lesson 8: The North’s Economy

Objectives:
- Understand how advances in technology shaped the economy of the North
- Explain how new kinds of transportation and communication spurred economic growth

Lesson 9: The North’s People (two-day lesson)

Objectives:
- Summarize how working conditions in industries changed
- Compare and contrast how immigration affected American economic, political, and cultural life

Lesson 10: Southern Cotton Kingdom

Objectives:
- Explore how settlement expanded in the South
- Determine why the economy of the South relied on agriculture

Lesson 11: The South’s People (two-day lesson)

Objectives:
- Describe what life was like on Southern plantations
- Understand how enslaved workers maintained strong family and cultural ties

Lesson 12: Social Reform

Objectives:
- Understand how religious and philosophical ideas inspired various reform movements
- Explain why educational reformers thought all citizens should attend school

Lesson 13: The Abolitionists (three-day lesson)
Lesson 14: The Women's Movement (three-day lesson)

Objectives:
• Examine how the antislavery and the women's rights movement were related
• Evaluate what progress women made toward equality during the 1800s

Lesson 15: The Growing Nation Virtual Field Trip

Objectives:
• Explore topics in U.S. history through Internet research

Lesson 16: The Growing Nation Unit Review and Test (two-day lesson)

Objectives:
• Review material in preparation for the unit test

Unit 3: Civil War and Reconstruction

In this unit, you will explore the history of the United States from 1846 to 1896. You will examine how different ideas about slavery and politics worsened regional tensions in the nation. You will also explore why many southern states seceded and how their actions and the government's response led to the Civil War. You will study what life was like during the Civil War and compare the Union's and Confederacy's goals and strategies. You will read about how the Union won the Civil War and explore plans for healing the nation. Finally, you will examine the period of Reconstruction and describe its effects on both the North and the South.

Objectives:
• Describe how differing ideas about politics and slavery contributed to sectional tensions
• Explain why some southern states seceded and how the federal government responded
• Describe what life was like during the Civil War and identify major battles and leaders on both sides
• Explain how the Union won the Civil War and explore plans for healing the nation
• Describe the period of Reconstruction and its effects on the newly united nation

Lesson 1: Slavery and the West (two-day lesson)

Objectives:
• Describe how the debate over slavery was related to the admission of new states
• Understand what the Compromise of 1850 accomplished

Lesson 2: A Nation Dividing

Objectives:
• Explain how the Fugitive Slave Act and the Kansas-Nebraska Act further divided the North and South
• Describe how popular sovereignty led to violence

Lesson 3: Challenges to Slavery (two-day lesson)

Objectives:
• Understand why the Republican Party formed
• Describe how the Dred Scott decision, the Lincoln-Douglas debates, and John Brown's raid affected Americans
Lesson 4: Secession and War (two-day lesson)

Objectives:
- Explain how the 1860 election led to the breakup of the Union
- Understand why secession led to the Civil War

Lesson 5: The Two Sides

Objectives:
- Explain why the border states played an important part in the war
- Compare Northern and Southern populations, industries, resources, and war aims

Lesson 6: Early Years of the War

Objectives:
- Identify Northern and Southern successes and failures in the early years of war
- Explain how the North's naval blockade hurt the South

Lesson 7: A Call for Freedom

Objectives:
- Describe why Lincoln issued the Emancipation Proclamation
- Understand the role that African Americans played in the Civil War

Lesson 8: Life During the Civil War (two-day lesson)

Objectives:
- Describe what life was like for soldiers during the Civil War
- Identify the role that women played in the war
- Compare how the war affected the economies of the North and the South

Lesson 9: The Way to Victory (two-day lesson)

Objectives:
- Identify the battles that turned the tide of the war in 1863
- Cite the events that led to the South's surrender in 1865

Lesson 10: Reconstruction Plans (three-day lesson)

Objectives:
- Compare Lincoln's plan for Reconstruction and the plan of the Radical Republicans
- Explain Andrew Johnson's proposal for handling Reconstruction

Lesson 11: Radicals in Control

Objectives:
- Identify what some southerners did to deprive freed people of their rights, and explain how Congress responded
- Cite the main features of Radical Reconstruction
Lesson 12: The South During Reconstruction

Objectives:
- Identify what groups participated in the South's Reconstruction
- Explain how Southern life changed during Reconstruction

Lesson 13: Change in the South (three-day lesson)

Objectives:
- Cite the changes that occurred in the South during the last years of Reconstruction
- Describe how African Americans were denied their rights

Lesson 14: Civil War and Reconstruction Virtual Field Trip

Objectives:
- Explore topics in U.S. history through Web research

Lesson 15: Civil War and Reconstruction Unit Review and Test (two-day lesson)

Objectives:
- Review material in preparation for the unit test

Unit 4: Modern America Emerges

In this unit, you will preview and explore the history of the United States from 1877 to the present. You will examine the continued exploration of the West and the effect of the United States' expansion on Native Americans. You will also explore how the United States began to expand its influence in world affairs. You will study how technological advances and immigration influenced life in late nineteenth-century America. You will read about calls for political and social reform. You will also explore the causes and effects of World War I, World War II, and the Cold War period. Finally, you will examine modern America and its war on terrorism.

Objectives:
- Describe the expansion of America into the west and around the globe
- Describe political, social, and technological changes in late nineteenth-century America
- Explain the causes and consequences of World War I, World War II, and the Cold War
- Describe major events in American history since the Cold War up to and including the war on terrorism

Lesson 1: The Western Frontier

Objectives:
- Explain why settlers moved west
- Discuss the reasons why settlers came into conflict with Native Americans

Lesson 2: Invention and Industry

Objectives:
- Analyze how American cities and industries changed at the turn of the century
- Describe the challenges immigrants to the United States faced

Lesson 3: Reform at Home, Expansion Abroad
Lesson 4: World War I and Its Aftermath

Objectives:
- Understand what role the United States played in World War I
- Summarize how the nation changed during the 1920s

Lesson 5: Depression and a Second World War

Objectives:
- Explain how President Roosevelt responded to the Great Depression
- Understand the actions that led to the outbreak of World War II

Lesson 6: Turning Points

Objectives:
- Examine the ways the United States attempted to stop the spread of communism
- Review the actions African Americans took to secure their rights

Lesson 7: Modern America (two-day lesson)

Objectives:
- Analyze the ways in which the Watergate scandal affected the nation
- Summarize how the Cold War ended

Lesson 8: The War on Terrorism

Objectives:
- Describe how Americans responded to terrorism
- Discuss the actions the government took to fight terrorism
U.S. HISTORY A
United States History A

This is the first of two courses that comprise United States History. This course will explore the growth of American society and the emergence of the United States as a world power. The course covers the significant developments in America's past from Reconstruction to World War I with a brief review of early settlement, colonization, and the development of America as an independent nation. The student will focus on American political, economic, and social history from a chronological point of view. Activities in this course are designed to develop the student's abilities to question, read, analyze, interpret, and evaluate different forms of information, as well as to communicate his or her ideas to others. Geography skills will be interwoven in the lessons, as the student makes connections between the evolution of America's geography and its historical impact.

Unit 1: The Early American Republic

In this unit, you will review your knowledge of early American history by surveying key events from the Revolutionary War to the Civil War. You will investigate the causes of the American Revolution, including the influence of the Enlightenment. You will analyze America's founding documents. You will trace the growing sectionalism during the 1800s, ending in the Civil War. Finally, you will determine the effects of the Civil War and Reconstruction on the United States.

Objectives:
- Identify the influences on the founders of the United States
- Describe the effects of the Civil War and Reconstruction on the United States

Lesson 1: Conflict with Great Britain

Objectives:
- Explain the colonists' reaction to new taxes
- Describe the methods the colonists used to protest British taxes
- Understand the significance of the First Continental Congress in 1774

Lesson 2: The American Revolution (two-day lesson)

Objectives:
- Describe the Loyalists' view of the Patriots
- Assess why Congress declared independence and the ideas underlying the Declaration of Independence
- Explain how the war and the peace treaty affected minority groups and women
- Assess the impact of the American Revolution on other countries

Lesson 3: The Constitution (two-day lesson)

Objectives:
- Summarize the rival plans of government proposed at the Convention
- Describe the compromises made in order to reach agreement on the Constitution
- Summarize the arguments for and against ratification of the Constitution
- Explain the principles of the Constitution

Lesson 4: Enlightenment's Influence

Objectives:
- Describe the main philosophies of the Enlightenment
- Identify the influence of the Enlightenment on American colonists
- Identify influences of the Enlightenment in America's founding documents

Lesson 5: Sectional Differences

Objectives:
- Analyze why industrialization took root in the northern part of the United States
- Describe the impact of industrialization on northern life
- Analyze the reasons that agriculture and slavery became entrenched in the South
Lesson 6: Anti-Slavery Movement

Objectives:
• Describe the lives of enslaved African Americans in the 1800s
• Identify the leaders and tactics of the abolition movement
• Summarize the opposition to abolition

Lesson 7: The Union in Crisis (two-day lesson)

Objectives:
• Describe the events that led the North and the South to distrust each other
• Compare the perspectives of Northerners and Southerners on the events of the first half of the 1800s
• Identify the steps that led to the Southern states seceding and the outbreak of the Civil War

Lesson 8: The Civil War (two-day lesson)

Objectives:
• Describe the major turning points of the Civil War
• Analyze why Lincoln decided to issue the Emancipation Proclamation and what it achieved
• Analyze how the war changed the economy and society in the North and South
• Assess the impact of the Civil War on the North and South

Lesson 9: Reconstruction (two-day lesson)

Objectives:
• Explain why a plan was needed for Reconstruction of the South
• Discuss how freedmen adjusted to freedom and the South's new economic system
• Evaluate the successes and failures of Reconstruction

Lesson 10: The Early American Republic Portfolio (two-day lesson)

Objectives:
• Compare and contrast the United States in 1776 with the United States in 1870
• Support an opinion by using two or more specific facts

Lesson 11: The Early American Republic Unit Review

Objectives:
• Review key words from the unit's lessons
• Review key concepts from the unit's lessons

Lesson 12: The Early American Republic Unit Test

Unit 2: Industrialization of the United States

In this unit, you will study key historical events from the Gilded Age. Studying inventions, business practices and labor unions, you will trace the effects of the Second Industrial Revolution. You will learn about the effect of immigration and urbanization on America's landscape. You will examine the changes in the South and the West during this period, and growing political and social movements throughout the country.

Objectives:
• Describe ways that industrialization, immigration, and urbanization changed the United States
• Describe the events of American westward expansion

Lesson 1: Technology and Industrial Growth

Objectives:
• Analyze the factors that led to the industrialization of the United States in the late 1800s
Lesson 2: The Rise of Big Business

Objectives:
- Analyze different methods that businesses used to increase their profits
- Describe the public debate over the impact of big business
- Explain how the government took steps to block abuses of corporate power

Lesson 3: The Organized Labor Movement

Objectives:
- Assess the problems that workers faced in the late 1800s
- Compare the goals and strategies of different labor organizations
- Analyze the cause and effects of strikes

Lesson 4: The New Immigrants

Objectives:
- Compare the "new immigration" of the late 1800s to earlier immigration
- Explain the push and pull factors leading immigrants to America
- Describe the challenges that immigrants faced in traveling to America
- Analyze how immigrants adapted to American life while trying to maintain familiar cultural practices

Lesson 5: Cities Expand and Change

Objectives:
- Analyze the causes of urban growth in the late 1800s
- Explain how technology improved city life
- Evaluate how city dwellers solved the problems caused by rapid growth

Lesson 6: Industrialization of the United States Portfolio (three-day lesson)

Objectives:
- Create a storyboard
- Relate the story of an immigrant in creative and historically accurate ways

Lesson 7: Social and Cultural Trends (two-day lesson)

Objectives:
- Explain how new types of stores and marketing changed American life
- Analyze the ways in which Americans developed a mass culture
- Describe the new forms of popular entertainment in the late 1800s

Lesson 8: The New South

Objectives:
- Explain how the southern economy changed in the late 1800s
- Analyze how southern farmers consolidated their political power
- Describe the experience of African Americans in the changing South

Lesson 9: Westward Expansion and the American Indians (three-day lesson)
Lesson 10: Transforming the West (two-day lesson)

Objectives:
• Analyze the impact of mining and railroads on the settlement of the West
• Explain how ranching affected western development
• Discuss the ways various peoples lived in the West and their impact on the environment

Lesson 11: Segregation and Social Tensions

Objectives:
• Assess how whites created a segregated society in the South and how African Americans responded
• Analyze efforts to limit immigration and the effects
• Compare the situations of Mexican Americans and of women to those of other groups

Lesson 12: Political and Economic Challenges

Objectives:
• Analyze the issue of corruption in national politics in the 1870s and 1880s
• Discuss civil service reform during the 1870s and 1880s
• Assess the importance of economic issues in the politics of the Gilded Age

Lesson 13: Farmers and Populism

Objectives:
• Analyze the problems farmers faced and the groups they formed to address them
• Assess the goals of the Populists and explain why the Populist Party did not last

Lesson 14: Industrialization of the United States Unit Review

Objectives:
• Review essential vocabulary for unit lessons
• Review key ideas from unit lessons

Lesson 15: Industrialization of the United States Unit Test

Unit 3: Emergence of the Modern United States

This unit covers the United States during the Progressive Era, from the late 1800s to the end of World War I. In this unit, you will learn about the reforms enacted during the Progressive Era. You will explore the United States' first steps toward imperialism. The unit will finish with your study of the causes, events, and effects of World War I.

Objectives:
• Describe the reforms of the Progressive Era
• Identify the steps the United States took to become an imperialist power
• Determine the causes and effects of World War I

Lesson 1: The Drive for Reform

Objectives:
• Identify the causes of Progressives and compare Progressivism to Populism
• Analyze the role that journalists played in the Progressive movement
• Evaluate some of the social reforms that Progressives tackled
• Explain what the Progressives hoped to achieve through political reforms
Lesson 2: Muckrakers in Depth

Objectives:
• Describe the work of specific muckrakers
• Analyze the effects of the work of muckrakers

Lesson 3: Women Make Progress

Objectives:
• Analyze the impact of changes in women's roles in society
• Explain what women did to win workers' rights and improve family life
• Evaluate the tactics women used to win passage of the Nineteenth Amendment

Lesson 4: The Struggle against Discrimination

Objectives:
• Analyze Progressives’ attitudes toward minority rights
• Explain why African Americans organized
• Examine the strategies used by members of other minority groups to defend their rights

Lesson 5: Roosevelt's Square Deal (two-day lesson)

Objectives:
• Discuss Theodore Roosevelt's ideas on the role of government
• Analyze how Roosevelt changed the government's role in the economy
• Explain the impact of Roosevelt's actions on natural resources
• Compare and contrast Taft’s policies with Roosevelt's

Lesson 6: Wilson's New Freedom (two-day lesson)

Objectives:
• Evaluate what Wilson hoped to do with his "New Freedom" program
• Describe Wilson's efforts to regulate the economy
• Assess the legacy of the Progressive Era

Lesson 7: The Roots of Imperialism

Objectives:
• Identify key factors that prodded America to expand
• Explain how the United States took its first steps toward increased global power
• Summarize the chain of events leading up to the U.S. annexation of Hawaii

Lesson 8: The Spanish-American War

Objectives:
• Explain the causes of the Spanish-American War
• Identify the major battles of the war
• Describe the consequences of the war, including the debate over imperialism

Lesson 9: The United States and East Asia

Objectives:
• Examine the causes and consequences of the Philippine insurrection
Lesson 10: The United States and Latin America (two-day lesson)

Objectives:
- Examine what happened to Puerto Rico and Cuba after the Spanish-American War
- Analyze the effects of Roosevelt's "big stick" diplomacy
- Compare Wilson's "moral diplomacy" with the foreign policies of his predecessors

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Lesson 11: Emergence of the Modern United States Portfolio (three-day lesson)

Objectives:
- View a historical event from multiple perspectives
- Identify both pros and cons of America's imperialism in the early 1900s
- Support viewpoints with at least two accurate historical facts

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Lesson 12: From Neutrality to War

Objectives:
- Analyze the causes of World War I
- Describe the course and character of the war
- Explain why the United States entered the conflict on the side of the Allies

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Lesson 13: The Home Front

Objectives:
- Analyze how the American government mobilized the public to support the war effort
- Describe opposition to the war
- Outline significant social changes that occurred during the war

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Lesson 14: Life in the Trenches

Objectives:
- Analyze primary sources, such as letters and memoirs, to learn more about the experiences of soldiers during World War I
- Describe conditions for American soldiers during World War I

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Lesson 15: Wilson, War, and Peace

Objectives:
- Understand how the United States military contributed to the Allied victory in the war
- Describe the aims of the Fourteen Points
- Analyze the decisions made at the Paris Peace Conference
- Explain why the United States Senate refused to ratify the treaty ending World War I

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Lesson 16: Effects of the War

Objectives:
- Describe the problems Americans faced immediately after the war
- Analyze how these problems contributed to the Red Scare
- Understand how the war changed America's role in world affairs

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Lesson 17: Emergence of the Modern United States Unit Review

Objectives:
• Explain important unit ideas
• Define key terms for the unit

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Lesson 18: Emergence of the Modern United States Unit Test

Unit 4: Prosperity and Depression

This unit focuses on the United States during the 1920s, and the 1930s. You will examine the cultural, economic, and political trends of the 1920s. You will learn about the causes of the Great Depression, its effect on everyday Americans and efforts to bring the country back to prosperity. You will particularly evaluate the effects of Franklin Delano Roosevelt’s New Deal on the United States.

Objectives:
• Describe the social, economic, and political environment of the 1920s
• Describe the causes and effects of the Great Depression
• Determine the effects of the New Deal

Lesson 1: A Booming Economy

Objectives:
• Explain the impact of Henry Ford and the automobile
• Analyze the consumer revolution and the bull market of the 1920s
• Compare the different effects of the economic boom in urban and rural America

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Lesson 2: The Business of Government

Objectives:
• Analyze how the policies of Presidents Harding and Coolidge favored business growth
• Discuss the most significant scandals during Harding's presidency
• Explain the role that the United States played in the world during the 1920s
• Discuss the successes and failures of the Eighteenth Amendment

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Lesson 3: Social and Cultural Tensions

Objectives:
• Compare economic and cultural life in rural America to that in urban America
• Discuss the changes in U.S. immigration policy in the 1920s
• Analyze the motives of the Ku Klux Klan in the 1920s

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Lesson 4: A New Mass Culture

Objectives:
• Trace the reasons that leisure increased during the 1920s
• Analyze how the development of popular culture united Americans and created new activities and heroes
• Discuss the advancements of women in the 1920s
• Analyze the concept of modernism and its impact on writers and painters in the 1920s

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Lesson 5: The Harlem Renaissance (two-day lesson)

Objectives:
• Analyze the racial and economic philosophies of Marcus Garvey
• Trace the development and impact of jazz
• Discuss the themes explored by the writers of the Harlem Renaissance

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Lesson 6: Prosperity and Depression Portfolio (three-day lesson)

Objectives:
• Examine a historical issue from multiple perspectives
• Portray a historical issue from multiple perspectives by writing a two-voice poem

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Lesson 7: Causes of the Depression

Objectives:
• Discuss the weakness in the economy of the 1920s
• Explain how the stock market crash contributed to the coming of the Great Depression
• Describe how the Great Depression spread overseas

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Lesson 8: Americans Face Hard Times

Objectives:
• Examine the spread of unemployment in America's cities
• Discuss the impact of the Great Depression on rural America
• Explain the human and geographical factors that created the Dust Bowl

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Lesson 9: Hoover's Response Fails (two-day lesson)

Objectives:
• Discuss how Hoover's initial conservative response to the Great Depression failed
• Explain the changes in the president's policies as the crisis continued
• Describe how Americans reacted to Hoover's relief programs

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Lesson 10: FDR Offers Relief and Recovery

Objectives:
• Analyze the impact Franklin D. Roosevelt had on the American people after becoming president
• Describe the programs that were part of the first New Deal and their immediate impact
• Identify critical responses to the New Deal

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Lesson 11: The Second New Deal

Objectives:
• Discuss the programs of social and economic reform in the Second New Deal
• Explain how the New Deal legislation affected the growth of organized labor
• Describe the impact of Roosevelt's court-packing plan on the course of the New Deal

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Lesson 12: Effects of the New Deal (two-day lesson)

Objectives:
• Describe how the New Deal affected different groups in American society
• Analyze how the New Deal changed the shape of American party politics
• Discuss the impact of Franklin D. Roosevelt on the presidency

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Lesson 13: Culture of the 1930s

Objectives:
• Trace the growth of radio and the movies in the 1930s and the changes in popular culture
• Describe the major themes of literature of the New Deal era

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Lesson 14: Prosperity and Depression Unit Review
Lesson 15: Prosperity and Depression Unit Test

Objectives:
- Define key terms of the unit
- Explain important concepts in the unit

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Unit 5: Review & Final
You will review information from Units 1–4 and take your Semester A Exam.

Lesson 1: Semester Review (two-day lesson)

Objectives:
- Review main ideas of the semester
- Review key terms of the semester
U.S. HISTORY B
United States History B

This is the second of two courses that comprise United States History. This course will continue the study of American history, tracing the changes in American society from World War II through the present. This course will continue to follow the chronology of American political, economic, and social history. Every unit will provide practice with critical social studies skills, including analyzing primary sources, recognizing point of view, identifying cause and effect, evaluating different forms of information, and communicating ideas to others. Geography skills are interwoven in the lessons, as the student makes connections between the evolution of America’s geography and its impact on historical events.

Unit 1: World War II and Postwar America

This unit focuses on the events of World War II and the beginning of the Cold War. You will learn about the causes, events, and effects of World War II. You will learn about changes in the United States as World War II ended and the Cold War began. You will examine how tensions developed between the Soviet Union and United States and how those tensions affected foreign policies and life at home. In this unit, you will also start a semester-long project, the writing of a research paper.

Objectives:
• Describe the causes, events, and effects of World War II
• Detail the steps that led to the Cold War
• Describe the main events, internationally and domestically, that marked the beginning of the Cold War

Lesson 1: Dictators and Wars 1

Objectives:
• Explain how dictators and militarist regimes arose in several countries in the 1930s
• Summarize the actions taken by aggressive regimes in Europe and Asia
• Analyze the responses of Britain, France, and the United States to aggressive regimes

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Lesson 2: From Isolationism to Involvement

Objectives:
• Understand the course of the early years of World War II in Europe
• Describe Franklin Roosevelt’s foreign policy in the mid-1930s and the great debate between interventionists and isolationists
• Explain how the United States became more involved in the conflict

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Lesson 3: America Enters the War (two-day lesson)

Objectives:
• Explain why Japan decided to attack Pearl Harbor and describe the attack itself
• Outline how the United States mobilized for war after the attack on Pearl Harbor
• Summarize the course of the war in the Pacific throughout the summer of 1942

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Lesson 4: The Allies Turn the Tide

Objectives:
• Analyze the reasons for and the impact of the Allies “Europe First” strategy
• Explain why the battles of Stalingrad and Midway were major turning points in the war

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United States History B
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Lesson 5: The Home Front

Objectives:
• Explain how World War II increased opportunities for women and minorities
• Analyze the effects of war on civil liberties for Japanese-Americans and others
• Examine how the need to support the war effort changed American lives

Lesson 6: Victory in Europe and the Pacific

Objectives:
• Analyze the planning and impact of the D-Day invasion of France
• Understand how the Allies achieved final victory in Europe
• Explore the reasons President Truman decided to use the atomic bomb against Japan

Lesson 7: The Holocaust

Objectives:
• Trace the roots and progress of Hitler's campaign against the Jews
• Explore the goals of Hitler's "final solution" and the nature of the Nazi death camps
• Examine how the United States responded to the Holocaust

Lesson 8: Effects of the War (two-day lesson)

Objectives:
• Evaluate the goals that Allied leaders set for the postwar world
• Describe the steps that the United States and other nations took toward international cooperation
• Explain the impact of World War II on the postwar United States

Lesson 9: World War II through Primary Sources

Objectives:
• Describe the experiences of everyday Americans during World War II
• Examine primary sources to learn more about World War II

Lesson 10: Research Portfolio: Choosing a Topic and Resources (three-day lesson)

Objectives:
• Determine a topic for a research paper
• Evaluate and choose resources
• Write a works cited page

Lesson 11: The Cold War Begins

Objectives:
• Trace the reasons that the wartime alliance between the United States and the Soviet Union unraveled
• Explain how President Truman responded to Soviet domination of eastern Europe
Lesson 12: The Korean War

Objectives:
- Explain how Mao Zedong and the communists gained power in China
- Describe the causes and progress of the war in Korea
- Identify the long-term effects of the Korean War

Lesson 13: The Cold War Expands (two-day lesson)

Objectives:
- Describe the causes and results of the arms race between the United States and the Soviet Union
- Explain how Eisenhower’s response to communism differed from that of Truman
- Analyze worldwide Cold War conflicts that erupted in eastern Europe, the Middle East and other places

Lesson 14: The Cold War at Home

Objectives:
- Describe the efforts of President Truman and the House of Representatives to fight communism at home
- Explain how domestic spy cases increased fears of communist influence in the U.S. government
- Analyze the rise and fall of Senator Joseph McCarthy and the methods of McCarthyism

Lesson 15: An Economic Boom

Objectives:
- Describe how the United States made the transformation to a peacetime economy
- Discuss the accomplishments of Presidents Harry Truman and Dwight Eisenhower
- Analyze the 1950s economic boom

Lesson 16: A Society on the Move

Objectives:
- Examine the rise of the suburbs and the growth of the Sunbelt
- Describe changes in the U.S. economy and education in the postwar period

Lesson 17: Mass Culture and Family Life

Objectives:
- Explain why consumer spending increased in the 1950s
- Describe the rise of new forms of mass culture in the 1950s
- Discuss postwar changes in family life

Lesson 18: Dissent and Discontent

Objectives:
Lesson 19: Research Portfolio: Conduct and Analyze Research (four-day lesson)

Objectives:
- Take notes from a variety of sources

Lesson 20: World War II and Postwar America Unit Review

Objectives:
- Review key words
- Review main ideas

Lesson 21: World War II and Postwar America Unit Test

Unit 2: Challenges and Change: Part 1

This unit focuses on the major changes in the United States during the 1950s, 1960s, and 1970s. You will begin the unit by examining the events of the civil rights movement. You will learn about the policies of Presidents Kennedy and Johnson, including the war in Vietnam. Finally, you will learn about the protests that swept the nation for women’s and minorities’ rights and against the Vietnam War. Throughout the unit, you will continue to work on your major research project.

Objectives:
- Describe the causes and effects of the Civil Rights movement
- Describe the main policies of the Kennedy and Johnson administrations
- Describe the causes and effects of the Vietnam War
- Describe the protest movements of the 1960s and 1970s

Lesson 1: Early Demands for Equality

Objectives:
- Describe efforts to end segregation in the 1940s and 1950s
- Explain the importance of Brown v. Board of Education
- Describe the controversy over school desegregation in Little Rock, Arkansas
- Discuss the Montgomery bus boycott

Lesson 2: Civil Disobedience and the Civil Rights Movement

Objectives:
- Describe the actions of Mahatma Gandhi in India’s independence movement
- Explain the effect of Gandhi’s nonviolent tactics on civil rights leaders such as Martin Luther King, Jr. and James Farmer

Lesson 3: The Movement Gains Ground

Objectives:
- Describe the sit-ins, freedom rides, and the actions of James Meredith in the early 1960s
- Explain how the protests at Birmingham and the March on Washington were linked to the Civil Rights Act of 1964
- Summarize the provisions of the Civil rights Act of 1964
Lesson 4: New Successes and Challenges

Objectives:
• Explain the significance of Freedom Summer, the march on Selma, and why violence erupted in some American cities in the 1960s
• Compare the goals and methods of African American leaders
• Describe the social and economic situation of African Americans by 1975

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Lesson 5: Research Portfolio: Writing an Outline (four-day lesson)

Objectives:
• Accurately identify topics and subtopics for a research paper
• Complete an outline for a research paper

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Lesson 6: Kennedy and the Cold War

Objectives:
• Explain the steps Kennedy took to change American foreign policy
• Analyze the causes and effects of the Bay of Pigs invasion and the Cuban Missile Crisis
• Assess the results of the Berlin Crisis and other foreign policy events of the 1960s

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Lesson 7: Kennedy’s New Frontier

Objectives:
• Evaluate Kennedy’s domestic policies
• Assess the impact of the Kennedy assassination

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Lesson 8: Johnson’s Great Society (two-day lesson)

Objectives:
• Evaluate Johnson’s policies up to his victory in the 1964 presidential election
• Analyze Johnson’s goals and actions as seen in his Great Society programs
• Assess the achievements of the Great Society

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Lesson 9: Origins of the Vietnam War (two-day lesson)

Objectives:
• Describe the reasons that the United States helped the French fight the Vietnamese
• Identify ways in which the United States opposed communism in Southeast Asia
• Analyze how the United States increased its involvement in Vietnam

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Lesson 10: U.S. Involvement Grows

Objectives:
• Identify the factors that caused President Johnson to increase American troop strength in Vietnam
• Assess the nature of the war in Vietnam and the difficulties faced by both sides
• Evaluate the effects of low morale on American troops and on the home front

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Lesson 11: Vietnam through Primary Sources

Objectives:
• Describe the experiences of Vietnam War soldiers
• Analyze primary sources to learn about the Vietnam War

Lesson 12: The War Divides America

Objectives:
• Describe the divisions within American society over the Vietnam War
• Analyze the Tet Offensive and the American reaction to it
• Summarize the factors that influenced the outcome of the 1968 presidential election

Lesson 13: The War’s End and Impact

Objectives:
• Assess Nixon's new approach to the war, and explain why protests continued
• Explain what led to the Paris Peace Accords and why South Vietnam eventually fell to the communists
• Evaluate the impact of the Vietnam War on the United States

Lesson 14: Nixon and the Cold War

Objectives:
• Explain the thinking behind Richard Nixon's foreign policy
• Define Nixon's foreign policy toward China and the Soviet Union

Lesson 15: Challenges and Changes Part 1 Review

Objectives:
• Review unit key words
• Review unit main ideas

Lesson 16: Challenges and Changes Part 1 Test

Unit 3: Challenges and Change: Part 2

This unit continues to focus on the major changes in the United States during the 1960s and 1970s. You will begin the unit by examining the events of the women’s rights movement. You will learn about the policies of Presidents Nixon, Ford, and Carter. Finally, you will learn about key events of the 1970s, including the Watergate scandal, stagflation, and the Iran hostage crisis. Throughout the unit, you will continue to work on your major research project.

Objectives:
• Describe the causes and effects of the women’s rights movement
• Describe the main policies of the Nixon, Ford, and Carter administrations
• Describe the mood of the country during the 1970s

Lesson 1: The Counter Culture

Objectives:
• Describe the rise of the counterculture
• List the major characteristics of the counterculture
• Evaluate the impact of the counterculture on American values and society
Lesson 2: The Women's Rights Movement

Objectives:
• Analyze how a movement for women's rights arose in the 1960s
• Explain the goals and tactics of the women's movement
• Assess the impact of the women's movement on American society

Lesson 3: The Rights Revolution Expands

Objectives:
• Explain how the Latino population grew after World War I
• Analyze the Latino and Native American rights movements of the 1960s and 1970s
• Describe the expansion of rights for consumers and the disabled

Lesson 4: The Environmental Movement (two-day lesson)

Objectives:
• Assess the causes and effects of the environmental movement
• Analyze why environmental protection became a controversial issue

Lesson 5: Nixon and the Watergate Scandal

Objectives:
• Describe Richard Nixon's attitude toward "big" government
• Analyze Nixon's southern strategy
• Explain the Watergate incident and its consequences

Lesson 6: The Ford and Carter Years

Objectives:
• Evaluate the presidency of Gerald Ford
• Assess the domestic policies of Jimmy Carter
• Analyze how American society changed in the 1970s

Lesson 7: Foreign Policy Troubles

Objectives:
• Compare the policies of Gerald Ford and Jimmy Carter toward the Soviet Union
• Discuss changing U.S. foreign policy in the developing world
• Identify the successes and failures of Carter's foreign policy in the Middle East

Lesson 8: Research Portfolio: Writing a Rough Draft (four-day lesson)

Objectives:
• Write a thesis statement
• Write and revise a rough draft of a research paper
• Make and support historical argument

Lesson 9: Challenges and Change Unit Part 2 Review
Lesson 10: Challenges and Change Unit Test

Unit 4: Changing and Enduring Issues

This unit focuses on the events of the last thirty years in American history. You will learn about the resurgence of conservative Republicans and the presidencies of Ronald Reagan and George H.W. Bush. You will learn about the main domestic and international events of the 1990s. Finally you will look at the events that have shaped the beginning of the 21st century, including global terrorism and immigration. You will finish your major research project.

Objectives:

- Explain why the nation’s politics became more conservative
- Describe the events that led to the end of the Cold War
- List the challenges that the United States faced after the end of the Cold War

Lesson 1: The Conservative Movement Grows

Objectives:

- Describe the differences between liberal and conservative viewpoints
- Analyze the reasons behind the rise of conservatism in the early 1980s
- Explain why Ronald Reagan won the presidency in 1980

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Lesson 2: The Reagan Revolution

Objectives:

- Analyze Reagan’s economic policies as President
- Summarize how Reagan strengthened the conservative movement
- Evaluate the steps taken to address various problems in the 1980s and early 1990s

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Lesson 3: 1980s Culture

Objectives:

- Describe the spread and influence of AIDS
- Explain the characteristics of Generation X
- Examine primary source documents to learn about the culture of the 1980s

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Lesson 4: The End of the Cold War

Objectives:

- Analyze the ways that Ronald Reagan challenged communism and the Soviet Union
- Explain why communism collapsed in Europe and in the Soviet Union
- Describe other foreign policy challenges that faced the United States in the 1980s

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Lesson 5: Foreign Policy after the Cold War (two-day lesson)

Objectives:

- Analyze why George H. W. Bush decided to use force in some foreign disputes and not in others
- Summarize the Persian Gulf War and its results

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Lesson 6: The Computer and Technology Revolutions

Objectives:

- Describe the development of the computer and its impact on business and industry
- Analyze the impact of new technology on communications
- Explain how globalization and the rise of the service sector affected the American economy

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Lesson 7: The Clinton Presidency

Objectives:

- Explain why Bill Clinton won the presidency in 1992
- Assess the success of Clinton's domestic policies
- Describe the Contract with America and its impact
- Analyze the Clinton impeachment

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Lesson 8: Global Politics and Economics

Objectives:

- Analyze how the United States responded to changes in the global economy
- Assess the foreign policy goals and actions of the Clinton administration
- Describe U.S. relations with various Middle Eastern countries and groups

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Lesson 9: The George W. Bush Presidency

Objectives:

- Assess the outcome of the 2000 presidential election
- Explain the goals and achievements of George W. Bush's domestic policy
- Analyze the impact of terrorist attacks on the United States
- Summarize the important issues of Bush's second term

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Lesson 10: Americans Look to the Future (two-day lesson)

Objectives:

- Analyze the impact of immigration on American society
- Summarize the causes and effects of changing demographics

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Lesson 11: Immigrants Today

Objectives:

- Describe the experiences of immigrants to the United States today
- Examine primary source documents to learn about history

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Lesson 12: Research Paper: Writing a Final Draft (three-day lesson)

Objectives:

- Revise a rough draft
- Write a final draft of a research paper

Lesson 13: Changing and Enduring Issues Review

Objectives:

- Review unit key words
- Review unit main ideas
Lesson 14: Changing and Enduring Issues Unit Test

Unit 5: U.S. History B Semester Review

In this unit, you will review for the U.S. History B Semester Exam. You will study by using the graphic organizers from each unit, by taking a practice test, and by choosing from a list of other review strategies. Finally, you will take the exam itself.

Lesson 1: Semester Review (two-day lesson)

Objectives:

• Assess your understanding of U.S. History from the aftermath of World War II to contemporary America

Lesson 2: U.S. History B Final Exam
WORLD HISTORY A
World History A

This is the first of two courses that comprise World History. Glencoe’s World History: Modern Times provides the basis for instruction. Students begin by exploring prehistory, focusing on the Stone and Bronze Ages. Students move on to learn about the early civilizations of Asia, the Middle East, and the Mediterranean basin, paying special attention to the civilizations of ancient Egypt, Greece, and Rome. The Middle Ages, Renaissance, and Reformation periods round out the course, throughout which students examine how historians work with ancient documents and both primary and secondary sources of information.

U.S. Constitution Day (L)

Objectives:
- Identify the foundations of the U.S. Constitution.
- Explain how the U.S. Constitution has impacted people worldwide.
- Observe Constitution Day.

Unit 1: Reading and Writing for History

In this unit, you will practice skills that will make you a better historian. You will hone your critical reading skills and develop a process for preparing and writing a research paper. Finally, you will learn how to identify reliable research sources and avoid committing plagiarism.

Objectives:
- Develop critical reading skills
- Learn the difference between primary and secondary sources
- Identify and organize reliable research sources for writing a research paper
- Define plagiarism
- Practice methods of citing information to avoid plagiarism

Lesson 1: Thinking About Your Reading (two-day lesson)

Objectives:
- Use of critical reading skills to think more deeply about reading material
- Introduction to conventions of reading primary source documents
- Identify perspective and bias from primary source documents
- Distinguish characteristics of primary and secondary sources

Lesson 2: Reading for Research-Before Reading

Objectives:
- Identify correct forms of citation of sources
- Determine main idea and supporting details for a research topic
- Create a graphic organizer to sort research details

Lesson 3: Reading for Research-During Reading

Objectives:
- Utilize methods to organize research
- Create a graphic organizer to sort research details

Lesson 4: Reading for Research-After Reading

Objectives:
- Identify criteria for determining the reliability of sources
- Explain the advantages and disadvantages of different types of sources
- Recognize bias in conflicting media accounts

Lesson 5: Plagiarism

Objectives:
- Define plagiarism
- Identify examples of plagiarized materials
- Identify methods of citing information to avoid plagiarism

Unit 2: Geography and History
In this unit, you will learn about the relationship between geography and historic events. You will learn more about the purpose and uses of globes and maps and examine the themes and elements associated with the study of geography.

Objectives:
- Analyze geographic factors that have shaped the course of historic events
- Understand the purpose and uses of globes and map projections
- Understand the purpose and uses of specific types of maps
- Identify the most commonly used geographic terms
- Understand the themes and elements associated with the study of geography

Lesson 1: Geography's Impact on History

Objectives:
- Analyze geographic factors that have shaped the course of historic events
- Understand the themes and elements associated with the study of geography

Lesson 2: Globes and Maps

Objectives:
- Understand the purpose and uses of globes and map projections

Lesson 3: Types of Maps

Objectives:
- Understand the purpose and uses of specific types of maps

Lesson 4: Geographic Terms

Objectives:
- Identify the most commonly used geographic terms

Unit 3: The World Before Modern Times

In this unit, you will learn about the emergence of civilizations from prehistory to about 1500. You will study ancient societies of Western Asia, Egypt, India, and China. You will also examine the contributions of the Greek, Roman, Arab, African, and Asian empires to world history. Finally, your study of ancient American civilizations will conclude the first unit of the course.

Objectives:
- Explain how the first civilizations emerged
- List and explain contributions of the Greeks and Romans to Western civilization
- Identify how Arab, African, and Asian empires spread
- Summarize the development of civilizations in the Americas

Lesson 1: The First Humans

Objectives:
- Describe the stages of development in the earliest humans
- Discuss the changes that occurred during the Neolithic Revolution that made the development of cities possible

Lesson 2: Western Asia and Egypt

Objectives:
- Explain how geography affected the rise of civilizations in Western Asia and Egypt
- Discuss the world religion of Judaism, which influenced the religions of Christianity and Islam

Lesson 3: India and China (two-day lesson)

Objectives:
Lesson 4: Ancient Greece (two-day lesson)

Objectives:
• Trace the history of early Greece from the first Greek state of Mycenae through the era of Classical Greece to the Hellenistic period of Alexander the Great
• Discuss the contributions of early Greece to Western civilization

Lesson 5: Rome and the Rise of Christianity (two-day lesson)

Objectives:
• Discuss how Roman culture and society were heavily influenced by the Greeks
• Summarize how Christianity spread throughout the empire and eventually became the state religion of Rome

Lesson 6: The World of Islam (two-day lesson)

Objectives:
• Describe the life of Muhammad and the basic tenets of Islam
• Explain the growth of Islam and its expansion to other parts of the world

Lesson 7: Early African Civilizations (two-day lesson)

Objectives:
• Analyze how the expansion of trade led to the growth of new kingdoms
• Characterize the extended family units that formed the basis of African villages

Lesson 8: The Asian World (two-day lesson)

Objectives:
• Characterize the Sui, Tang, Song, and Mongol dynasties
• Analyze how geography affected the development of Japan

Lesson 9: Emerging Europe and the Byzantine Empire (two-day lesson)

Objectives:
• Describe the rise of the Germanic and Frankish kingdoms, the influence of Christianity, and the importance of Charlemagne
• Explain the Norman Conquest, Magna Carta, French kingdoms, and the growth of Slavic states

Lesson 10: Europe in the Middle Ages (two-day lesson)

Objectives:
• Discuss the new farming practices, the growth of trade, and the rise of cities that created a flourishing European society
• Describe the various misfortunes that challenged Europe in the fourteenth century
Lesson 11: The Americas (three-day lesson)

Objectives:
• Characterize early Mesoamerican civilizations that flourished with fully developed political, religious, and social structures
• Explain how the Aztec and the Inca succumbed to disease and to Spanish forces

Lesson 12: Unit Review

Lesson 13: Unit Assessment

Unit 4: The Early Modern World - Part I

In this unit, you will learn about world cultures between 1400 and 1800. You will study the Renaissance and its impact on people's interpretation of the world around them. In addition, you will explore the role of religion and study the effect of the Protestant Reformation and the Catholic Counter-Reformation. You will also look at various societies' explorations around the globe. Finally, you will examine social and political struggles in Europe between 1550 and 1715.

Objectives:
• Explain the achievements of the Renaissance and the effects of the Protestant Reformation
• Trace the growing power of monarchs and the rise of absolutism in Europe

Lesson 1: The Renaissance (two-day lesson)

Objectives:
• Explain why, between 1350 and 1550, Italian intellectuals believed they had entered a new age of human achievement
• Characterize city-states, which were centers of political, economic, and social life in Renaissance Italy

Lesson 2: The Intellectual and Artistic Renaissance (two-day lesson)

Objectives:
• Discuss humanism, the most important intellectual movement associated with the Renaissance
• Identify the great artists and sculptors produced by the Renaissance, such as Michelangelo, Raphael, and Leonardo da Vinci

Lesson 3: The Protestant Reformation (two-day lesson)

Objectives:
• Discuss the major goal of humanism in northern Europe, which was to reform Christendom
• Explain how Martin Luther's religious reforms led to the emergence of Protestantism

Lesson 4: The Spread of Protestantism and Catholic Response

Objectives:
• Summarize the different forms of Protestantism that emerged in Europe as the Reformation spread
• Summarize the religious rebirth of the Catholic Church
Lesson 5: Exploration and Expansion (two-day lesson)

Objectives:
- Discuss how in the fifteenth century Europeans began to explore the world
- Summarize how Portugal, Spain, the Dutch Republic, and England reached new economic heights through worldwide trade

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Lesson 6: Africa in an Age of Transition (two-day lesson)

Objectives:
- Explain how European expansion affected Africa with the dramatic increase of the slave trade
- Characterize the traditional political systems and cultures that continued to exist in most of Africa

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Lesson 7: Southeast Asia in the Era of the Spice Trade (two-day lesson)

Objectives:
- Summarize the Portuguese occupation of the Moluccas in search of spices and how the Dutch pushed the Portuguese out
- Relate how the arrival of the Europeans greatly affected the Malay

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Lesson 8: Europe in Crisis-The Wars of Religion

Objectives:
- Discuss the situation in many European nations in which Protestants and Catholics fought for political and religious control
- Summarize how, during the sixteenth and seventeenth centuries, many European rulers extended their power and their borders

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Lesson 9: Social Crises, War, and Revolution (two-day lesson)

Objectives:
- Explain how the Thirty Years’ War ended the unity of the Holy Roman Empire
- Relate how democratic ideals were strengthened as a result of the English and Glorious Revolutions

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Lesson 10: Response to Crisis-Absolutism (two-day lesson)

Objectives:
- Identify and describe Louis XIV, an absolute monarch whose extravagant lifestyle and military campaigns weakened France
- Discuss how Prussia, Austria, and Russia emerged as great European powers in the seventeenth and eighteenth centuries

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Lesson 11: The World of European Culture (two-day lesson)

Objectives:
- Describe the artistic movements of Mannerism and the baroque, which began in Italy and reflected the spiritual perceptions of the time
- Identify Shakespeare and Lope de Vega, prolific writers of dramas and comedies that reflected the human condition

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Lesson 12: Unit Review

Lesson 13: Unit Assessment

Unit 5: The Early Modern World - Part II

In this unit, you will continue to study the contributions of world cultures between 1400 and 1815. You will examine the expansion of Muslim Empires throughout the world and the impact of the religion of Islam. Additionally, you will learn about cultures of the East Asian world, including China, Japan, and Korea. You will also examine the causes and effects of the Scientific Revolution and the Enlightenment and study their impact on the American colonies. You will conclude World History A by learning about the French Revolution and its consequences, as well as studying the contributions of Napoleon.

Objectives:
- Examine the Ottoman, Safavid, and Mogul Empires in Asia and India
- Explain how the Scientific Revolution and Enlightenment changed the way people viewed their world
- Compare the causes and evaluate effects of the English, French, and American Revolutions

Lesson 1: The Ottoman Empire

Objectives:
- Discuss how the Ottoman Turks used firearms to expand their lands and appointed local rulers to administer conquered regions
- Characterize the creation of a strong Ottoman Empire with religious tolerance and artistic achievements

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Lesson 2: The Rule of the Safavids

Objectives:
- Relate how the Safavids used their faith as a unifying force to bring Turks and Persians together
- Describe how the Safavid dynasty reached its height under Shah Abbas

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Lesson 3: The Grandeur of the Moguls (two-day lesson)

Objectives:
- Explain how the Moguls united India under a single government with a common culture
- Discuss how the introduction of foreigners seeking trade opportunities in India hastened the decline of the Mogul Empire

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Lesson 4: China at Its Height (two-day lesson)

Objectives:
- Summarize how China opened its doors to Europeans but closed those doors when it observed the effect of Western ideas on Chinese society
- Discuss how Chinese art and culture flourished between 1500 and 1800

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Lesson 5: Chinese Society and Culture (two-day lesson)

Objectives:
- Describe the rapid increase in population that led to rural land shortages
- Summarize Chinese society and its organization around the family
- Relate how architecture, decorative arts, and literature flourished during this period

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Lesson 6: Tokugawa Japan and Korea (two-day lesson)

Objectives:
- Identify three powerful political figures who unified Japan
- Describe how between 1500 and 1800 Japan experienced many peasant uprisings
- Explain why Korea could not withstand invasions by the Japanese and Manchus

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Lesson 7: The Scientific Revolution

Objectives:
- Discuss how the Scientific Revolution gave Europeans a new way to view humankind’s place in the universe

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Lesson 8: The Enlightenment (two-day lesson)

Objectives:
- Describe how eighteenth-century intellectuals used the ideas of the Scientific Revolution to reexamine all aspects of life
- Relate how people gathered in salons to discuss the ideas of the philosophers

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Lesson 9: The Impact of the Enlightenment (two-day lesson)

Objectives:
- Discuss how Enlightenment beliefs were reflected in the art, music, and literature of the time
- Summarize how Enlightenment thought influenced the politics of Europe in the eighteenth century

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Lesson 10: Colonial Empires and the American Revolution (two-day lesson)

Objectives:
- Explain how the colonies of Latin America and British North America were developing in ways that differed from their European mother countries
- Analyze why the American colonies revolted against Great Britain and formed a new nation

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Lesson 11: The French Revolution Begins (two-day lesson)

Objectives:
- Specify why social inequality and economic problems contributed to the French Revolution
- Explain why radicals, Catholic priests, nobles, and the lower classes opposed the new order

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Lesson 12: Radical Revolution and Reaction (two-day lesson)

Objectives:
- Report how radical groups and leaders controlled the Revolution
- Discuss why the new French Republic faced enemies at home and abroad

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Lesson 13: The Age of Napoleon (three-day lesson)

Objectives:
- Summarize how Napoleon built and lost an empire
- Discuss how nationalism spread as a result of the French Revolution
- Describe how Napoleon was exiled first to Elba and then to St. Helena, where he died

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Lesson 14: Unit Review

Lesson 15: Unit Assessment

Unit 6: World History A Final Exam

In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords and vocabulary terms, and all important concepts that may be covered on this exam

Lesson 1: World History A Final Exam Review (two-day lesson)

Lesson 2: World History A Final Exam
WORLD HISTORY B
World History B

This is the second of two courses that comprise World History. Glencoe's *World History: Modern Times* provides the basis for instruction. Students will explore the social, political, and economic changes in the 19th and 20th centuries. Topics of study include the Industrial Revolution, armed revolutions, and independence movements throughout the world. The course focuses on the impact of nationalism and imperialism and explores the world wars. Students also study the modern era and explore topics such as technological advancements and globalization.

Unit 1: An Era of European Imperialism

In this unit, you will explore the causes and effects of European Imperialism between 1800 and 1914. You will examine how industrialization and nationalism influenced empire-building around the globe. In addition, you will learn about European colonies in Southeast Asia, Africa, India, and Latin America, and consider the consequences of imperialism on indigenous peoples. Finally, you will study social and political challenges in China and Japan in the 19th and early 20th centuries.

Objectives:
- Describe the impact of the Industrial Revolution
- Describe the revolutionary and reform movements that reshaped politics of Europe and the Americas in the 1800s
- Explain how nationalists unified Italy and Germany and challenged autocracy in Russia and Austria-Hungary
- Discuss the effects of imperialism in Asia, Africa, and Latin America

Lesson 1: The Industrial Revolution

Objectives:
- Explain why coal and steam replaced wind and water as new sources of energy and power
- Describe the growth of cities as people moved from the country to work in factories.

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Lesson 2: Reaction and Revolution (two-day lesson)

Objectives:
- Summarize how the great powers worked to maintain a conservative order throughout Europe
- Characterize the forces of liberalism and nationalism and their continued growth, which led to the revolutions of 1848

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Lesson 3: National Unification and the National State (two-day lesson)

Objectives:
- Report how the rise of nationalism contributed to the unification of Italy and Germany
- Explain that while nationalism had great appeal, not all peoples achieved the goal of establishing their now national states

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Lesson 4: Culture-Romanticism and Realism (two-day lesson)

Objectives:
- Describe how romanticism emerged as a reaction to the ideas of the Enlightenment at the end of the eighteenth century
- Characterize the Industrial Revolution, which created a new interest in science and helped produce the realist movement

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Lesson 5: The Growth of Industrial Prosperity

Objectives:
- Describe how new sources of energy and consumer products transformed the standard of living for all social classes in many European countries.
- Summarize how working-class leaders used Marx's ideas to form socialist parties.

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Lesson 6: The Emergence of Mass Society

Objectives:
- Characterize the varied middle class in Victorian Britain and their belief in the principles of hard work and good conduct.
- Discuss how the new opportunities for women and the working class improved their lives.

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Lesson 7: The National State and Democracy

Objectives:
- Discuss how new political parties and labor unions challenged the governments of western Europe.
- Explain how international rivalries led to conflicts in the Balkans and World War I.

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Lesson 8: Toward Modern Consciousness

Objectives:
- Explain how extreme nationalism and racism led to an increase in anti-Semitism.
- Summarize how developments in science changed how people saw themselves and their world.

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Lesson 9: Toward the Modern Consciousness: The Impressionist

Objectives:
- Describe how innovative artistic movements during the late 1800s and early 1900s rejected traditional styles.

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Lesson 10: Colonial Rule in Southeast Asia

Objectives:
- Explain how, through the "new imperialism," Westerners sought to control vast territories.
- Describe how colonial export policies exploited native populations and opened up markets for European manufactured goods.

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Lesson 11: Empire Building in Africa

Objectives:
- Discuss how Great Britain, France, Germany, Belgium, and Portugal placed virtually all of Africa under European rule.
- Report how native peoples sought an end to colonial rule.

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Lesson 12: British Rule in India

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Objectives:
• Discuss how British rule brought stability to India but destroyed native industries and degraded Indians
• Identify Mohandas Gandhi, who advocated nonviolent resistance to gain Indian independence from Great Britain

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Lesson 13: Nation Building in Latin America (two-day lesson)

Objectives:
• Explain how Latin American countries served as a source of raw materials for Europe and the United States
• Explain that because land remained the basis of wealth and power, landed elites dominated Latin American countries

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Lesson 14: The Decline of the Qing Dynasty

Objectives:
• Explain that the Qing Dynasty declined because of internal and external pressures
• Summarize how Western nations increased their economic involvement with China

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Lesson 15: Revolution in China

Objectives:
• Identify Sun Yat-sen and his reforms, which led to a revolution in China
• Discuss how the arrival of Westerners brought changes to the Chinese economy and culture

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Lesson 16: Rise of Modern Japan

Objectives:
• Describe how Western intervention opened Japan, an island that had been isolated for 200 years, to trade
• Discuss the interaction between Japan and Western nations that gave birth to a modern industrial society

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Lesson 17: Unit Review (two-day lesson)

Lesson 18: Unit Assessment

Unit 2: The Twentieth Century Crisis

In this unit, you will study social, political, and military struggles throughout the world between 1914 and 1945. You will examine the causes and effects of World War I, and study how the outcome of that war laid the foundation for a second world war. Additionally, you will study world cultural trends between the world wars. You will also explore the role of nationalism in the Middle East, Africa, Asia, and Latin America. Finally, you will learn about the reasons for and consequences of World War II.

Objectives:
• Describe the causes and impact of World War I
• Trace the growth of Fascist and Communist dictatorships in Italy, Germany, and the Soviet Union
• Explain the upsurge of nationalism in Asia, Africa, and Latin America
• Trace the events that led to World War II; Describe major events and turning points of World War II
• Describe events that took place during the Holocaust; Describe the impact of World War II on civilian populations

Lesson 1: The Road to World War I

Objectives:
• Discuss how militarism, nationalism, and a crisis in the Balkans led to World War I
• Explain why Serbia’s determination to become a large, independent state angered Austria-Hungary and initiated hostilities

Lesson 2: The War (two-day lesson)

Objectives:
• Report how the stalemate at the Western Front led to new alliances, a widening of the war, and new weapons
• Summarize how governments expanded their powers, increased opportunities for women, and made use of propaganda

Lesson 3: The Russian Revolution (two-day lesson)

Objectives:
• Explain how poor leadership led to the fall of the czarist regime in Russia
• Relate how the Bolsheviks came to power under Lenin
• Describe how Communist forces triumphed over anti-Communist forces

Lesson 4: End of the War (two-day lesson)

Objectives:
• Report how combined Allied forces stopped the German offensive
• Explain how peace settlements brought political and territorial changes to Europe and created bitterness and resentment in several nations

Lesson 5: The Futile Search for Stability

Objectives:
• Explain why peace and prosperity were short-lived after World War I
• Describe how global economic depression weakened the Western democracies after 1929

Lesson 6: The Rise of Dictatorial Regimes

Objectives:
• Characterize the modern totalitarian state established by Mussolini
• Report how Stalin, the leader of the Soviet Union, eliminated people who threatened his power

Lesson 7: Hitler and Nazi Germany (two-day lesson)

Objectives:
• Characterize the totalitarian state in Germany established by Hitler and the Nazi Party
• Explain why many Germans accepted the Nazi dictatorship while other Germans suffered greatly under Hitler’s rule
Lesson 8: Cultural and Intellectual Trends (two-day lesson)

Objectives:
- Relate how radios and movies were popular forms of entertainment that were used to spread political messages
- Summarize the new artistic and intellectual trends that reflected the despair created by World War I and the Great Depression

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Lesson 9: Nationalism in the Middle East

Objectives:
- Explain how nationalism led to the creation of the modern states of Turkey, Iran, and Saudi Arabia
- Specify how the Balfour Declaration made Palestine a national Jewish homeland

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Lesson 10: Nationalism in Africa and Asia (two-day lesson)

Objectives:
- Describe how peoples in Africa and Asia began to agitate for independence
- Relate how Japan became an aggressive military state
- Characterize how Soviet agents worked to spread communism around the world

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Lesson 11: Revolutionary Chaos in China

Objectives:
- Report how internal tensions led Chiang Kai-shek to violently end the Communist-National alliance
- Discuss Mao Zedong's belief that revolution in China would be led by peasants, not the urban working class

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Lesson 12: Nationalism in Latin America (two-day lesson)

Objectives:
- Describe how, before the Great Depression, the United States was the foremost investor in Latin America
- Report how the Great Depression created instability in Latin America, which led to military coups and the creation of military dictatorships

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Lesson 13: World War II: Paths to War

Objectives:
- Explain how Adolf Hitler's theory of Aryan racial domination laid the foundation for aggressive expansion outside of Germany
- Specify how the actions and ambitions of Japan and Germany paved the way for the outbreak of World War II

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Lesson 14: World War II: The Course of World War II (two-day lesson)

Objectives:
- Discuss how the bombing of Pearl Harbor created a global war between the Allied and the Axis forces
- Describe how Allied perseverance and effective military operations, as well as Axis miscalculations, brought an end to the war
Lesson 15: World War II: The New Order and the Holocaust (two-day lesson)

Objectives:
- Report how Adolf Hitler's philosophy of Aryan superiority led to the Holocaust
- Analyze how the Japanese conquest of Southeast Asia forced millions of native peoples to labor for the Japanese war machine

Lesson 16: World War II: The Home Front and Aftermath (two-day lesson)

Objectives:
- Discuss how World War II left a lasting impression on civilian populations
- Summarize how the end of the war created a new set of problems for the Allies as the West came into conflict with the Soviet Union

Lesson 17: Unit Review

Lesson 18: Unit Assessment

Unit 3: Toward a Global Civilization

In this final unit of World History, you will learn about developments throughout the world between 1945 and the present. You will examine the causes and consequences of the Cold War and trace the influence of communism throughout the postwar world. You will also learn about the emergence of new economies and independent nations in Latin America, Africa, and Asia. Finally, you will consider the challenges facing the global civilization and how nations try to achieve peace.

Objectives:
- Summarize the causes and impact of the Cold War; Describe conflicts in Asia and the region's emergence as an economic powerhouse
- Analyze the legacy of colonial rule in Africa and the challenges facing that continent
- Examine the rival nationalistic movements in the Middle East and the region's search for peace
- Identify political and economic trends in Latin America
- Analyze factors that are leading toward globalization

Lesson 1: Development of the Cold War

Objectives:
- Identify and describe the period of conflict called the Cold War that developed between the United States and the Soviet Union after 1945
- Explain why, as the Cold War developed, European nations were forced to support one of the two major powers

Lesson 2: The Soviet Union and Eastern Europe

Objectives:
- Describe the policies of de-Stalinization initiated by Soviet leader Khrushchev
- Discuss the revolts and protests faced by the Soviet Union in its attempt to gain and maintain control over Eastern Europe

Lesson 3: Western Europe and North America (two-day lesson)

Objectives:
• Report how postwar Western societies rebuilt their economies and communities
• Explain how shifting social structures in the West led to upheaval and change

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Lesson 4: Decline of the Soviet Union

Objectives:
• Discuss how the Cold War ended after leadership changed in the Soviet Union
• Identify policies of Gorbachev that contributed to the disintegration of the Soviet Union
• Explain how conversion from a socialist to a free-market economy created many problems in the former Soviet states

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Lesson 5: Eastern Europe

Objectives:
• Describe Gorbachev's policy of not giving military support to Communist governments and how it created the opportunity for revolution
• Characterize the massive demonstrations that peacefully ended some Communist regimes and the violence that ended others

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Lesson 6: Europe and North America

Objectives:
• Discuss how Western European nations moved to unite their economies after 1970
• Identify the domestic problems that arose in the United States, Great Britain, France, Germany, and Canada

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Lesson 7: Western Society and Culture (two-day lesson)

Objectives:
• Relate how technological and scientific advances have created a global society
• Discuss artistic trends that reflect how the emerging global society led to a blending of cultural forms and ideas

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Lesson 8: General Trends in Latin America

Objectives:
• Explain how exporting raw materials and importing manufactured goods has led to economic and political troubles for Latin American nations
• Characterize the democratic systems that many Latin American nations began to build in the late 1980s

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Lesson 9: Mexico, Cuba, and Central America

Objectives:
• Summarize the political and economic crises that Mexico and Central America faced after World War II
• Discuss the United States' fear of the spread of communism in Central American countries that led to active U.S. involvement in the region

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Lesson 10: The Nations of South America (two-day lesson)

Objectives:
- Discuss why South American nations have experienced economic, social, and political problems
- Explain why democracy has advanced in South America since the late 1980s

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Lesson 11: Independence in Africa (two-day lesson)

Objectives:
- Describe how people hoped that independence would bring democratic governments, but instead many African nations fell victim to military regimes and one-party states
- Discuss how African nations struggled to resolve the tension between modern and traditional cultures and economies

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Lesson 12: Conflict in the Middle East (three-day lesson)

Objectives:
- Explain how instability in various parts of the Middle East led to armed conflict and mediation attempts from countries outside the region
- Discuss the Islamic revival in many Middle Eastern countries, which influenced political and social life

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Lesson 13: Communist China

Objectives:
- Describe the socialist society in China established by Mao Zedong
- Discuss how after Mao's death modified capitalist techniques were used to encourage growth in industry and farming

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Lesson 14: Independent States in South and Southeast Asia (three-day lesson)

Objectives:
- Explain how British India was divided into two states: India, mostly Hindu, and Pakistan, mostly Muslim
- Summarize how many of the newly independent states of Southeast Asia attempted to form democratic governments but often fell subject to military regimes

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Lesson 15: Japan and the Pacific (two-day lesson)

Objectives:
- Describe how Japan and the "Asian tigers" have created successful industrial societies
- Analyze why Australia and New Zealand have identified themselves culturally and politically with Europe, yet in recent years they have been drawing closer to their Asian neighbors

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Lesson 16: The Challenges of Our World

Objectives:
- Discuss the environmental, social, economic, and political challenges that the world faces

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Lesson 17: Global Visions (four-day lesson)

Objectives:
- Identify the organizations that have been established to respond to global challenges
- Characterize the citizens' groups and nongovernmental organizations that have also formed to address global concerns

Lesson 18: Unit Review

Lesson 19: Unit Assessment

Unit 4: World History B Final Exam

In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords and vocabulary terms, and all important concepts that may be covered on this exam

Lesson 1: World History B Final Exam Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords and vocabulary terms, and all important concepts that may be covered on this exam

Lesson 2: World History B Final Exam
AMERICAN GOVERNMENT A
American Government A

This is the first of two courses that comprise American Government. In this course, the student will explore the foundation of American government and its fundamental principles and organization. Glencoe's United States Government: Democracy in Action provides the basis for instruction. The student will examine government concepts such as the growth of democracy, federalism, separation of powers, and checks and balances. The branches of government—legislative, executive, and judicial—are studied in depth. This course promotes understanding and participation in government by presenting information in a context that is relevant to the student. Activities in this course are designed to develop the student's abilities to question, read, analyze, interpret, and evaluate different forms of information, as well as to communicate his or her ideas to others.

Unit 1: Foundations of American Government

In this unit, you will explore the beginnings of government in the United States. You will learn about the political and economic features of American government. You will discover how the American colonies won independence from Great Britain and what models they looked to in creating a new nation. You will study the Constitution, the three branches of government, and the principle of federalism.

Objectives:
• Discuss the history and purpose of government
• Analyze ideas and historical documents and events that shaped the U.S. Constitution
• Describe structural features of the Constitution
• Explain how the U.S. system of government is a federal one

Lesson 1: Principles of Government

Objectives:
• Identify the essential features of a state and describe the theories about the origin of government

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Lesson 2: The Formation of Governments

Objectives:
• Cite similarities and differences between unitary and federal governments

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Lesson 3: Types of Government

Objectives:
• Summarize the relationship between democracy and free enterprise

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Lesson 4: Economic Theories (two-day lesson)

Objectives:
• Name the ways the United States has modified its free enterprise system

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Lesson 5: The Colonial Period

Objectives:
• Explain why colonists expected representative government

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Lesson 6: Uniting for Independence

Objectives:
Lesson 7: The Articles of Confederation

Objectives:
- Explain the weaknesses and achievements of the Articles of Confederation

Lesson 8: The Constitutional Convention (two-day lesson)

Objectives:
- Describe the making of the Constitution.

Lesson 9: Structure and Principles (four-day lesson)

Objectives:
- Describe the structure and principles behind the Constitution

Lesson 10: Three Branches of Government

Objectives:
- Summarize the powers, duties, and roles of the three branches of government

Lesson 11: Amending the Constitution (two-day lesson)

Objectives:
- Itemize the ways of proposing and ratifying amendments to the Constitution and detail methods of informal constitutional change

Lesson 12: The Amendments (two-day lesson)

Objectives:
- Classify amendments as dealing with individual rights, reflecting societal change, and affecting the structure of government

Lesson 13: National and State Powers (two-day lesson)

Objectives:
- Distinguish the expressed, implied, and inherent powers of the federal government
- Compare federal powers with state powers

Lesson 14: Relations Among the States

Objectives:
- Explain how the Constitution regulates interstate relations

Lesson 15: Developing Federalism (two-day lesson)

Objectives:
Lesson 16: Federalism and Politics (two-day lesson)

Objectives:
- Summarize the impact of federalism on politics

Lesson 17: Foundations of American Government Unit Review

Objectives:
- Review the main ideas and vocabulary of Unit 1

Lesson 18: Foundations of American Government Unit Test

Unit 2: The Legislative Branch

In this unit, you will learn about the powers and functions of the legislative branch of the United States government. You will explore the House of Representatives, the Senate, and additional committees and agencies. You will study how Congress works with the president, as well as how new laws are made.

Objectives:
- Describe the organizational structure, support systems, and leadership systems of Congress
- Discuss the powers of Congress and the relationship between Congress and the executive branch
- Analyze the lawmaking process, the factors involved in the passage of legislation, and the interaction between members of Congress and their constituents

Lesson 1: Congressional Membership

Objectives:
- Describe the structure of Congress
- List qualifications for membership in Congress

Lesson 2: The House of Representatives

Objectives:
- Describe the rules and procedures used in the House and explain the House's role in the lawmaking process

Lesson 3: The Senate

Objectives:
- Contrast the Senate's leadership and role in the lawmaking process with that of the House of Representatives

Lesson 4: Congressional Committees

Objectives:
- Identify kinds of committees and why members serve on them

Lesson 5: Staff and Support Agencies (two-day lesson)

Objectives:
- Explain how staff members and support agencies participate in the legislative process
Lesson 6: Constitutional Powers (two-day lesson)

Objectives:
- Identify and explain classifications of powers through which Congress makes laws for the nation

Lesson 7: Investigations and Oversight

Objectives:
- Discuss times when Congress used its power to conduct investigations and practice legislative oversight

Lesson 8: Congress and the President (three-day lesson)

Objectives:
- Analyze the dynamics in the relationship between the legislative and executive branches of the federal government

Lesson 9: How a Bill Becomes a Law

Objectives:
- Explain how federal legislation is proposed, reviewed, and enacted

Lesson 10: Taxing and Spending Bills

Objectives:
- Analyze the ways in which Congress raises and spends money

Lesson 11: Influencing Congress (four-day lesson)

Objectives:
- Identify factors that often influence members of Congress

Lesson 12: Helping Constituents (two-day lesson)

Objectives:
- Explain how members of Congress help voters in their states or districts

Lesson 13: The Legislative Branch Unit Review

Objectives:
- Review the main ideas and key words of Unit 2

Lesson 14: The Legislative Branch Unit Test

Unit 3: The Executive Branch

In this unit, you will explore the powers and functions of the executive branch of the United States government. You will learn about the responsibilities of the president, vice president, and the cabinet. You will also study the seven major roles of the president and styles of leadership that lead to presidential success. Finally, you will learn about the bureaucratic and civil service systems of the executive branch.

Objectives:
• Describe the organization and functions of the executive branch of the federal government
• Discuss presidential powers
• Evaluate the functions of the federal bureaucracy

Lesson 1: President and Vice President

Objectives:
• Describe the requirements for the office of president and the role of the vice president

Lesson 2: Electing the President (two-day lesson)

Objectives:
• Discuss the historical foundations of the Electoral College and its advantages and disadvantages

Lesson 3: The Cabinet

Objectives:
• Evaluate how politics influences cabinet appointments and relationships

Lesson 4: The Executive Office (two-day lesson)

Objectives:
• Describe the components of the Executive Office of the President

Lesson 5: Presidential Powers

Objectives:
• Summarize the historical changes in the power of the presidency

Lesson 6: Roles of the President (two-day lesson)

Objectives:
• Describe the seven major roles of the president

Lesson 7: Styles of Leadership (four-day lesson)

Objectives:
• Evaluate the leadership qualities important to the success of the president

Lesson 8: Bureaucratic Organization (two-day lesson)

Objectives:
• Describe the functions of the Cabinet, independent government agencies, and regulatory commissions

Lesson 9: The Civil Service System

Objectives:
• Evaluate the effectiveness of the civil service system
Lesson 10: The Bureaucracy at Work (two-day lesson)

Objectives:
- Summarize the advantages and disadvantages of the federal bureaucracy

Lesson 11: The Executive Branch Unit Review

Objectives:
- Review the main ideas and key words of Unit 3

Lesson 12: The Executive Branch Unit Test

Unit 4: The Judicial Branch

In this unit, you will explore the powers and functions of the judicial branch of the United States government. You will learn about the judicial systems of federal and state courts. You will study the Supreme Court, and learn about how it selects, hears, and decides cases. Finally, you will investigate how the Supreme Court shapes public policy as well as the factors that influence the Court's decisions.

Objectives:
- Describe the jurisdiction of federal courts and the method of selecting judges for them
- Explain the workings of the Supreme court, how it shapes public policy, and the forces that shape its decisions

Lesson 1: Powers of the Federal Courts

Objectives:
- Compare the jurisdiction of federal and state courts and describe the growth of the Supreme Court

Lesson 2: Lower Federal Courts

Objectives:
- Explain the jurisdiction of federal and state courts and describe the growth of the Supreme Court

Lesson 3: The Supreme Court (two-day lesson)

Objectives:
- Describe the jurisdiction of the Supreme Court, the duties of its justices, and the way its justices are selected

Lesson 4: The Supreme Court at Work

Objectives:
- Explain how the Supreme Court selects, hears, and decides cases

Lesson 5: Shaping Public Policy (two-day lesson)

Objectives:
- Identify the ways the Supreme Court shapes public policy and explain the limits on the Court's power

Appendix A.2.d Social Studies Course Guides

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Lesson 6: Influencing Court Decisions (two-day lesson)

Objectives:
- Describe the forces that shape the Supreme Court's decisions

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Lesson 7: The Judicial Branch Unit Review (two-day lesson)

Lesson 8: The Judicial Branch Unit Test

Unit 5: American Government A Final

In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Lesson 1: American Government A Review (two-day lesson)

Lesson 2: American Government A Final
AMERICAN GOVERNMENT B
American Government B

This is the second of two courses that comprise American Government. In this course, the student will examine the basic rights and responsibilities of U.S. citizens and the foundations of American government. Glencoe's *United States Government: Democracy in Action* provides the basis for instruction. In this course students explore constitutional freedoms, citizen requirements, and aspects of American law. Students learn about ways to affect the government and study the influence of the media, political parties, and interest groups. Students will also learn about local and state government structures and compare political systems and economies from around the world.

**Unit 1: Liberty and Justice for All**

In this unit, you will learn about the basic rights and responsibilities of U.S. citizens. You will explore the freedoms granted by the Bill of Rights. You will also study U.S. immigration policy as well as the requirements for U.S. citizenship. Finally, you will learn about aspects of American law, including the concepts of equal protection, privacy, and equal opportunity.

Objectives:
- List an American citizen's basic civil liberties and review the constitutional protections provided for each
- Discuss the nature, rights, and responsibilities of U.S. citizenship
- Explain the foundations of the U.S. legal system and the basic procedures of civil and criminal law

**Lesson 1: Constitutional Rights**

Objectives:
- Discuss constitutional rights and the importance of the nationalization of the Bill of Rights

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**Lesson 2: Freedom of Religion**

Objectives:
- Explain the establishment and free exercise clauses that define the First Amendment's guarantee of religious freedom

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**Lesson 3: Freedom of Speech**

Objectives:
- Explain how the First Amendment protects diversity of opinion in the United States

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**Lesson 4: Freedom of the Press**

Objectives:
- Analyze First Amendment protections for sharing information and opinions

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**Lesson 5: Freedom of Assembly (four-day lesson)**

Objectives:
- Explain the freedoms and restrictions placed by the First Amendment upon gatherings of people

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**Lesson 6: A Nation of Immigrants**

Objectives:
Lesson 7: The Basis of Citizenship

Objectives:
- Explain the requirements for United States citizenship

Lesson 8: The Rights of the Accused

Objectives:
- Summarize the rights of Americans accused of crimes

Lesson 9: Equal Protection of the Law

Objectives:
- Explain the concept of "equal protection" and the tests by which the Supreme Court determines discrimination

Lesson 10: Challenges for Civil Liberties (two-day lesson)

Objectives:
- Contrast trends and laws intended to ensure equal opportunity, privacy, and citizen's right to know

Lesson 11: Sources of American Law

Objectives:
- Discuss the major foundations and principles of the American legal system

Lesson 12: Civil Law

Objectives:
- Explain the various types of civil law and the steps involved in resolving a civil dispute

Lesson 13: Criminal Law (two-day lesson)

Objectives:
- Classify types of crimes
- Outline the steps followed in criminal cases

Lesson 14: Liberty and Justice for All Unit Review

Lesson 15: Liberty and Justice for All Unit Test

Unit 2: Participating in Government

In this unit, you will explore the different ways in which Americans participate in the political system. You will learn about the role and organization of political parties. In addition, you will study the election process in the U.S. You will also explore the roles and responsibilities of voters, and discover how they influence and are influenced by the political system. Finally,
you will learn about the roles of interest groups, public opinion, and the media in American
government.

Objectives:
• Identify the function of political parties
• Analyze the importance of an informed electorate
• Evaluate the effect of interest groups on the government
• Explain the power of mass media as it relates to individuals, interest groups, and the
government

Lesson 1: Development of Parties

Objectives:
• Summarize the role of political parties in American politics

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Lesson 2: Party Organization

Objectives:
• Describe the organization and function of American political parties

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Lesson 3: Nominating Candidates (two-day lesson)

Objectives:
• Discuss the advantages and disadvantages of the four methods of
nominating candidates

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Lesson 4: Election Campaigns

Objectives:
• Examine the role campaign financing and political parties play in electing
candidates for public office

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Lesson 5: Expanding Voting Rights

Objectives:
• Summarize the historical expansion of voting rights

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Lesson 6: Influences on Voters

Objectives:
• Evaluate the factors that influence voters and nonvoters

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Lesson 7: Interest Group Organization

Objectives:
• Describe the types of interest groups in the United States

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Lesson 8: Affecting Public Policy

Objectives:
• Explain how lobbyists affect public policy

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Lesson 9: Shaping Public Opinion

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American Government B

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Lesson 10: Measuring Public Opinion (two-day lesson)

Objectives:
- Evaluate the methods used to measure public opinion

Lesson 11: How Media Impact Government (three-day lesson)

Objectives:
- Discuss the role of mass media in United States politics

Lesson 12: Regulating Print and Broadcast Media

Objectives:
- Evaluate the role the governments plays in regulating mass media

Lesson 13: The Internet and Democracy (two-day lesson)

Objectives:
- Analyze the impact of the Internet on government in the United States

Lesson 14: Participating in Government Unit Review
Lesson 15: Participating in Government Unit Test

Unit 3: Public Policies and Services

In this unit, you will explore public policies and services of the U.S. government. You will learn about how the government raises and manages money. You will also study the government's policies on business, the environment, public health, education, housing, and transportation. Finally, you will learn about the nation's foreign policy, and how it has changed over time.

Objectives:
- Describe the federal government's methods of raising money and of budgeting and spending that money
- Discuss social and domestic policy in such areas as business and labor, agriculture and the environment, health care and public assistance, and transportation
- Summarize various aspects of foreign policy- goals, historical development, the roles of the executive and legislative branches, and tools

Lesson 1: Raising Money

Objectives:
- Identify the kinds of taxes and the methods of borrowing the government uses to raise money

Lesson 2: Preparing the Federal Budget

Objectives:
- Describe the roles of the executive and legislative branches in the preparation of the federal budget
Lesson 3: Managing the Economy (two-day lesson)

Objectives:
• Explain the influence of fiscal and monetary policies on the economy

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Lesson 4: Business and Labor Policy

Objectives:
• Describe the interaction among government, business, labor, and consumers

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Lesson 5: Agriculture and Environment

Objectives:
• Summarize past and current federal farm and environmental policy

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Lesson 6: Health and Public Assistance

Objectives:
• Identify the role of the federal government in health care, public assistance, and social insurance

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Lesson 7: Education, Housing, and Transportation (two-day lesson)

Objectives:
• Explain the federal government's role in education, housing and urban renewal, and transportation

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Lesson 8: Development of Foreign Policy

Objectives:
• Describe the goals and development of United States foreign policy

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Lesson 9: Shared Foreign Policy Powers

Objectives:
• Explain how the executive and legislative branches share foreign policy powers

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Lesson 10: State and Defense Departments

Objectives:
• Summarize the roles of the Departments of State and Defense in foreign policy making

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Lesson 11: Foreign Policy in Action (three-day lesson)

Objectives:
• Describe the tools of foreign policy

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Lesson 12: Public Policies and Services Unit Review
Unit 4: State and Local Government

In this unit, you will learn about different roles and responsibilities of state and local governments. You will explore the similarities and differences in their history and organization. Finally, you will learn about the ways in which state and local government influences your daily life.

Objectives:
- Discuss the foundation, organization, and functions of state governments
- Summarize the history, structure, and responsibilities of local governments

Lesson 1: State Constitutions

Objectives:
- Explain the importance and functions of state constitutions

Lesson 2: The Three Branches

Objectives:
- Discuss the organization and functions of the three branches of state governments

Lesson 3: State Government Policy

Objectives:
- Analyze ways in which state governments write and enforce public policy

Lesson 4: Financing State Government (two-day lesson)

Objectives:
- Identify and evaluate various sources of state revenue

Lesson 5: Structure of Local Government

Objectives:
- Describe and compare various forms of local government

Lesson 6: Serving Localities

Objectives:
- Explain how local governments provide a range of services to residents of the community

Lesson 7: Challenges of Urban Growth (three-day lesson)

Objectives:
- Identify problems that metropolitan areas face and potential solutions

Lesson 8: State and Local Government Unit Review

Lesson 9: State and Local Government Unit Test
In this unit, you will identify the characteristics of different types of political systems. You will evaluate the relationship between economic decision-making and political freedom. Finally, you will compare capitalism, socialism, and communism.

Objectives:
- Discuss the characteristics of different types of political systems
- Evaluate the relationship between economic decision making and political freedom
- Compare capitalism, socialism, and communism

**Lesson 1: Democratic Governments**

Objectives:
- Compare parliamentary government and presidential government

**Lesson 2: Authoritarian Governments**

Objectives:
- Discuss the traits that authoritarian governments have in common

**Lesson 3: International Organizations**

Objectives:
- Evaluate the impact of international organizations on global affairs

**Lesson 4: Global Issues (three-day lesson)**

Objectives:
- Understand the major global issues facing the world today

**Lesson 5: Capitalist and Mixed Systems**

Objectives:
- Identify the factors of production in economic systems and the chief characteristics of capitalism

**Lesson 6: Emerging Economies**

Objectives:
- Discuss economic problems that have challenged developing nations and attempts to solve those problems

**Lesson 7: Major Economies in Transition**

Objectives:
- Describe the major obstacles to change in the Russian and Chinese economies

**Lesson 8: The Global Economy (two-day lesson)**

Objectives:
- Analyze the factors that dominate global economic concerns today

**Lesson 9: Political and Economic Systems Unit Review**
Lesson 10: Political and Economic Systems Unit Test

Unit 6: American Government B Final

In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Lesson 1: American Government B Review (two-day lesson)

Lesson 2: American Government B Final
ECONOMICS
Economics

Economics provides an introduction to the concepts of both macro- and microeconomics. Prentice Hall’s *Economics: Principles in Action* provides the basis for instruction. Students explore topics such as scarcity, opportunity cost, and supply and demand. The course provides an overview of the free market and centrally planned economies, as well as how government influences economics. Students will also explore business and labor, money, banking, and finance. Economics introduces students to economic growth, development, and challenges in both the U.S. and the global economies.

**Unit 1: Introduction to Economics**

In the first unit of Economics, you will be introduced to the basic ideas of economics. You will study scarcity, the factors of production, decision making, and opportunity cost. You will also examine how societies have developed different economic systems to make choices about resource allocation. Finally, you will study the American free enterprise system.

Objectives:
- Explain why scarcity and choice are basic problems of economics; Identify types of capital
- Interpret a production possibilities curve; Identify the three key economic questions
- Explain why markets exist; Explain the advantages and disadvantages of different types of markets
- Describe the free enterprise system of the United States
- Identify examples of public goods

**Lesson 1: Scarcity, Production Factors, and Opportunity Cost**

Objectives:
- Explain why scarcity and choice are basic problems of economics
- Identify land, labor, and capital as the three factors of production, and identify the two types of capital
- Explain the role of entrepreneurs
- Explain why economists say all resources are scarce
- Describe why every decision involves trade-offs
- Explain the concept of opportunity cost
- Explain how people make decisions by thinking at the margin

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**Lesson 2: Production Possibilities Curves (two-day lesson)**

Objectives:
- Interpret a production possibilities curve
- Demonstrate how production possibilities curves show efficiency, growth, and cost
- Understand that a country’s production possibilities depend on its available resources and technology

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**Lesson 3: Answering the Three Economic Questions**

Objectives:
- Identify the three key economic questions of what to produce, how to produce, and who consumes what is produced
- Analyze the societal values that determine how a country answers the three economic questions
- Explain the characteristics of traditional, command, and market economies and describe the societal values that influence them

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**Lesson 4: Free Market, Planned, and Modern Economies (two-day lesson)**

Objectives:

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Lesson 5: Benefits of Free Enterprise, Growth, and Stability

Objectives:
- Describe the tradition of free enterprise in the United States and the constitutional protections that underlie it
- Explain the basic principles of the U.S. free enterprise system
- Identify the role of the consumer in the U.S. free enterprise system
- Describe the role of the government in the U.S. free enterprise system
- Explain how the government tracks and seeks to influence business cycles
- Analyze how the government promotes economic strength
- Analyze the effect of technology on productivity

Lesson 6: Providing Public Goods and a Safety Net

Objectives:
- Identify examples of public goods
- Analyze market failures
- Evaluate how the government allocates some resources by managing externalities
- Summarize the U.S. political debate on ways to fight poverty
- Describe the main programs through which the government redistributes income

Lesson 7: Unit Review

Objectives:
- Review the basic ideas of economics
- Learn about scarcity, the factors of production, decision making, and opportunity costs
- Look at how societies have developed different economic systems to make choices about resource allocations
- Examine one of those systems, the American system of free enterprise

Lesson 8: Unit Assessment

Unit 2: How Markets Work

In this unit, you will study the factors that affect the way markets perform. You will learn about demand, consumer desire for a product, and how it is affected by other economic factors. In addition, you will examine supply and its role in the market. Both supply and demand affect prices, which you will also learn about in this unit. Finally, you will study the four types of market structures and identify their advantages and disadvantages.

Objectives:
Lesson 1: Understanding Demand

Objectives:
- Explain the law of demand
- Understand how the substitution effect and the income effect influence decisions
- Create a demand schedule for an individual and a market
- Interpret a demand graph using demand schedules

Lesson 2: Demand Curve Shifts and Elasticity of Demand (three-day lesson)

Objectives:
- Understand the difference between a change in quantity demanded and a shift in the demand curve
- Identify the determinants that create changes in demand and that can cause a shift in the demand curve
- Explain how the change in the price of one good can affect demand for a related good
- Explain how to calculate the elasticity of demand
- Identify factors that affect elasticity
- Explain how firms use elasticity of supply and time

Lesson 3: Understanding Supply

Objectives:
- Explain the law of supply
- Interpret a supply graph using a supply schedule
- Explain the relationship between elasticity of supply and time

Lesson 4: Costs of Production

Objectives:
- Explain how firms decide how much labor to hire to produce a certain level of output
- Analyze the production costs of a firm
- Understand how a firm chooses to set output
- Explain how a firm decides to shut down an unprofitable business

Lesson 5: Changes in Supply (two-day lesson)

Objectives:
- Identify how determinants such as input costs create changes in supply
- Identify three ways that the government can influence the supply of a good
- Understand supply and demand in the global economy
- Analyze the effects of other factors that affect supply

Lesson 6: Supply and Demand and Market Equilibrium (three-day lesson)
Lesson 7: The Role of Prices (two-day lesson)

Objectives:
- Analyze the role of prices in a free market
- List the advantages of a price-based system
- Explain how a price-based system leads to a wider choice of goods and more efficient allocation of resources
- Describe the relationship between prices and the profit incentive

Lesson 8: Perfect Competition and Monopoly

Objectives:
- Describe the four conditions that are in place in a perfectly competitive market
- List two common barriers that prevent firms from entering a market
- Describe prices and output in a perfectly competitive market
- Describe characteristics and give examples of monopoly
- Describe how monopolies are formed, including government monopolies
- Explain how a firm with a monopoly sets output and price and why companies practice price discrimination

Lesson 9: Competition, Oligopoly, and Regulation

Objectives:
- Describe characteristics and give examples of monopolistic competition
- Explain how firms compete without lowering prices
- Understand how firms in a monopolistically competitive market set output
- Describe characteristics and give examples of oligopoly
- Understand how firms use market power
- List three market practices that the government regulates or bans to protect competition
- Define deregulation and list its effects on several industries

Lesson 10: Unit Review

Objectives:
- Learn about demand, consumer desire for a product, and how it is affected by other economic factors
- Explain how supply is one of the basic building blocks of the market place
- Explain how supply and demand affect prices
- Review the four types of market structures and how the government intervenes to protect competition, a key element of free enterprise, in the marketplace
Lesson 11: Unit Assessment

Unit 3: Business and Labor

In this unit, you will learn about how the world of work is organized. You will develop an understanding of the types of business organizations, including sole proprietorships, partnerships, and corporations. You will also examine the history and development of organized labor as well as factors that determine wages. Finally, you will learn about trends in the labor force and in wages and benefits.

Objectives:
- Examine the characteristics of sole proprietorships, partnerships, and corporations
- Analyze the advantages and disadvantages of incorporation and mergers
- Analyze the relationship between supply and demand in the labor market
- Trace the history of the labor movement in the United States

Lesson 1: Sole Proprietorships

Objectives:
- Explain the characteristics of sole proprietorships
- Analyze the advantages of a sole proprietorship
- Analyze the disadvantages of a sole proprietorship

Lesson 2: Partnerships

Objectives:
- Compare and contrast the different types of partnerships
- Analyze the advantages of partnerships
- Analyze the disadvantages of partnerships

Lesson 3: Corporations and Mergers (two-day lesson)

Objectives:
- Explain the characteristics of corporations
- Analyze the advantages of incorporation; Analyze the disadvantages of incorporation
- Compare and contrast corporate combinations

Lesson 4: Other Organizations

Objectives:
- Understand how a business franchise works
- Identify the different types of cooperative organizations
- Understand the purpose of nonprofit organizations, including professional and business organizations

Lesson 5: Labor Market Trends

Objectives:
- Describe how trends in the labor force are tracked
- Analyze past and present occupational trends
- Summarize how the U.S. labor force is changing
- Identify and explain trends in the wages and benefits paid to U.S. workers

Lesson 6: Labor and Wages

Objectives:
- Analyze the relationship between supply and demand in the labor market
Lesson 7: Organized Labor

Objectives:
- Describe why historically some American workers have joined labor unions
- Trace the history of the labor movement in the United States
- Analyze reasons for the decline of the labor movement
- Explain how labor and management negotiate contracts

Lesson 8: Unit Review

Objectives:
- Learn how and why economists study the composition of the country’s labor force
- Explain the impact of supply and demand on labor and wages

Lesson 9: Unit Assessment

Unit 4: Money, Banking, and Finance

In this unit, you will learn about money, banking, and finance. You will examine the characteristics of money, the historic role of banks, and trends in banking today. You will also study the world of finance and develop an understanding of savings and investment, including investment options, such as stocks and bonds.

Objectives:
- Describe the three uses of money; Understand the source of money’s value
- Trace the history of American banking; Explain the functions of financial institutions
- Understand how investing contributes to the free enterprise system; Identify the trade-offs among risk, liquidity, and return
- Describe the characteristics of bonds as financial assets; Identify different types of bonds
- Understand the benefits and risks of buying stock

Lesson 1: Money

Objectives:
- Describe the three uses of money
- Explain the six characteristics of money
- Understand the sources of money’s value

Lesson 2: The History of American Banking and Banking Today (two-day lesson)

Objectives:
- Describe the shifts between centralized and decentralized banking before the Civil War
- Explain how the banking system was stabilized in the later 1800s
- Describe developments in banking during the twentieth century
- Explain how the money supply in the United States is measured
- Explain the functions of financial institutions
- Identify different types of financial institutions
- Understand the changes brought about by electronic banking
Lesson 3: Saving and Investing

Objectives:
• Understand how investing contributes to the free enterprise system
• Explain how the financial system brings together savers and borrowers
• Describe how financial intermediaries link savers and borrowers
• Identify the trade-offs among risk, liquidity, and return

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Lesson 4: Bonds and Other Financial Assets

Objectives:
• Describe the characteristics of bonds as financial assets
• Identify different types of bonds
• Describe the characteristics of other types of financial assets
• Explain four different types of financial asset markets

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Lesson 5: The Stock Market

Objectives:
• Understand the benefits and risks of buying stock
• Describe how stocks are traded
• Identify how stock performance is measured
• Explain the causes and effects of the Great Crash of 1929

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Lesson 6: Unit Review

Objectives:
• Learn how economists define money
• Study how banks and other institutions help channel money from savers to investors

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Lesson 7: Unit Assessment

Unit 5: Measuring Economic Performance

In this unit, you will discover how economic performance is measured. You will learn about the calculation and use of gross domestic product and the significance of business cycles. In addition, you will study economic growth and the factors that contribute to it. You will examine the economic challenges of unemployment, inflation, and poverty, and the effect of these challenges on the economy.

Objectives:
• Explain how gross domestic product is calculated; Identify factors that influence gross domestic product
• Identify the phases of the business cycle; Describe four key factors that keep the business cycle going
• Analyze how economic growth is measured; Analyze how saving and investing are related to economic growth
• Describe frictional, seasonal, structural, and cyclical unemployment; Describe how full employment is measured
• Explain the effects of rising prices; Define who is poor, according to government standards

Lesson 1: Gross Domestic Product

Objectives:
• Identify National Income and Product Accounts (NIPA)
• Explain how gross domestic product (GDP) is calculated
• Explain the difference between nominal and real GDP
• List the main limitations of GDP

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Lesson 2: Business Cycles

Objectives:
- Identify the phases of the business cycle
- Describe four key factors that keep the business cycle going
- Explain how economists forecast fluctuations in the business cycle
- Analyze the impact of business cycles in U.S. history
- Analyze why U.S. business cycles may change in the future

Lesson 3: Economic Growth (two-day lesson)

Objectives:
- Analyze how economic growth is measured
- Understand capital deepening and how it contributes to economic growth
- Analyze how saving and investment are related to economic growth
- Summarize the impact of population growth, government, and foreign trade on economic growth
- Identify the causes and impact of technological progress

Lesson 4: Unemployment (two-day lesson)

Objectives:
- Describe frictional, seasonal, structural, and cyclical unemployment
- Describe how full employment is measured
- Explain why full employment does not mean that every worker is employed

Lesson 5: Inflation

Objectives:
- Explain the effects of rising prices
- Understand the use of price indexes to compare changes in prices over time
- Identify the causes and effects of inflation
- Describe recent trends in the inflation rate

Lesson 6: Poverty (two-day lesson)

Objectives:
- Define who is poor, according to government standards
- Describe the causes of poverty
- Analyze the distribution of income in the United States
- Summarize government policies intended to combat poverty

Lesson 7: Unit Review

Objectives:
- Learn how economists measure the health of the economy
- Study the impact a recession has on workers and businesses
- Define inflation
- Identify what makes the economy grow

Appendix A.2.d Social Studies Course Guides  Economics
Lesson 8: Unit Assessment

Unit 6: Government and the Economy

In this unit, you will learn about the ways the government obtains and spends resources as well as how it intervenes in the economy. You will study taxes and federal spending. You will also learn about fiscal policy and the different ways economists view the role of government in the economy. Finally, you will examine monetary policy, the money creation process, bank regulation, and the role of the Federal Reserve.

Objectives:
- Understand how the government uses taxes to fund programs; Describe types of tax bases and tax structures; Distinguish between mandatory and discretionary spending; Describe major entitlement programs
- Describe how the government uses fiscal policy as a tool for achieving its economic goals; Explain how the government creates the federal budget
- Compare and contrast classical economics and Keynesian economics
- Explain the importance of balancing the budget
- Explain the structure of the Federal Reserve system; Describe the process of money creation; Understand how monetary policy works

Lesson 1: Taxes

Objectives:
- Understand how the government uses taxes to fund programs; Identify the roots of the concept of taxation in the United States Constitution
- Describe types of tax bases and tax structures; List the characteristics of a good tax
- Identify who bears the burden of a tax
- Describe the process of paying individual income taxes
- Explain the basic characteristics of corporate income taxes
- Understand the purpose of Social Security, Medicare, and unemployment taxes
- Identify other types of taxes

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Lesson 2: Federal, State, and Local Taxes and Spending (four-day lesson)

Objectives:
- Distinguish between mandatory and discretionary spending
- Describe major entitlement programs; Identify categories of discretionary spending
- Explain the impact of federal aid to state and local governments
- Explain how states use a budget to plan their spending
- Identify where state taxes are spent
- List the major sources of state tax revenue
- Describe local government spending an sources of revenue

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Lesson 3: Understanding Fiscal Policy

Objectives:
- Describe how the government uses fiscal policy as a tool for achieving its economic goals
- Explain how the government creates the federal budget
- Analyze the impact of fiscal policy decisions on the economy
- Identify the limits of fiscal policy

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Lesson 4: Fiscal Policy Options

Objectives:
- Compare and contrast classical economics and Keynesian economics
- Explain the basic principles of supply-side economics
Lesson 5: Budget Deficits and the National Debt (two-day lesson)

Objectives:
- Explain the importance of balancing the budget
- Analyze how budget deficits add to the national debt
- Summarize the problems caused by the national debt
- Identify how a government can reduce budget deficits and the national debt

Lesson 6: The Federal Reserve System and its Functions (two-day lesson)

Objectives:
- Understand banking history in the United States; Explain why the Federal Reserve Act of 1913 led to further reform
- Explain the structure of the Federal Reserve System
- Describe how the Federal Reserve serves the federal government
- Describe how the Federal Reserve serves banks
- Describe how the Federal Reserve regulates the banking system
- Understand the Federal Reserve's role in regulating the nation's money supply

Lesson 7: Monetary Policy Tools

Objectives:
- Describe the process of money creation
- Explain how the Federal Reserve uses reserve requirements, interest rates, and open market operations to implement U.S. monetary policy
- Understand why some monetary policy tools are favored over others

Lesson 8: Monetary Policy and Macroeconomic Stabilization (two-day lesson)

Objectives:
- Understand how monetary policy works
- Explain the problems of timing and policy lags in implementing monetary policy
- Explain how predictions about the length of a business cycle affect monetary policy
- Describe two distinct approaches to monetary policy

Lesson 9: Unit Review

Objectives:
- Learn how governments gather and spend financial resources
- Examine the actions that the government sometimes takes to help ensure the health of the nation's economy

Lesson 10: Unit Assessment

Unit 7: The Global Economy

In the final unit of Economics, you will learn about international trade and economic development. You will study reasons why nations trade, barriers to trade, international
cooperation, and ways in which trade is measured. Finally, you will study levels of economic development and the changes that are occurring throughout much of the world today.

Objectives:
- Explain why nations trade; Define various types of trade barriers
- Analyze how changes in exchange rates of world currencies affect international trade; Understand what is meant by developed nations and less developed countries
- Identify the tools used to measure levels of development
- Understand the role investment plays in development; Identify the purposes of foreign aid
- Describe the functions of various international economic institutions

Lesson 1: Why Nations Trade

Objectives:
- Analyze the locations of resources and evaluate the significance of these locations
- Explain the concepts of absolute and comparative advantage and apply the concept of comparative advantage to explain why and how countries trade
- Analyze the impact of U.S. imports and exports on the United States and its trading partners
- Describe the effects of trade on employment

Lesson 2: Trade Barriers and Agreements

Objectives:
- Define various types of trade barriers
- Compare the effects of free trade and trade barriers on economic activities
- Understand arguments in favor of protectionism
- Evaluate the benefits and costs of participation in international trade agreements
- Explain the role of multinationals in the global market

Lesson 3: Measuring Trade

Objectives:
- Analyze how changes in exchange rates of world currencies affect international trade
- Describe the effect of various exchange rate systems
- Analyze the effects of changes in exchange rates on the balance of trade

Lesson 4: Levels of Development (two-day lesson)

Objectives:
- Understand what is meant by developed nations and less developed countries
- Identify the tools used to measure levels of development
- Describe the characteristics of developed nations and less developed countries
- Understand how levels of development are ranked

Lesson 5: Issues in Development

Objectives:
- Identify the causes and effects of rapid population growth
- Describe the effects of the unequal distribution of the factors of production
- Understand the importance of human capital to development
Lesson 6: Financing Development

Objectives:
- Understand the role investment plays in development
- Identify the purposes of foreign aid
- Describe the functions of various international economic institutions

Lesson 7: Transitions to Free Enterprise

Objectives:
- Identify some important steps in moving from a centrally planned economy toward a free market economy
- Describe the political and economic changes that have taken place in Russia in recent decades
- Describe the actions that China's communist government has taken to introduce free market reforms into China

Lesson 8: Unit Review

Objectives:
- Learn why nations trade
- Explore what actions nations take to restrict or increase trade
- Examine why standards of living vary greatly from country to country
- Study the impact of the global economy on everyone's future

Lesson 9: Unit Assessment

Unit 8: Economics Final Exam

In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords and vocabulary terms, and all important concepts that may be covered on this exam

Lesson 1: Economics Final Exam Review (two-day lesson)

Objectives:
- Decide which strategies you will use to prepare for your exam
- Organize your time and study materials
- Review your notes, keywords and vocabulary terms, and all important concepts that may be covered on this exam

Lesson 2: Economics Final Exam
GEOGRAPHY & SOCIETY
Geography and Society

In Geography and Society, students will study the physical processes of the Earth, human systems such as culture, government, and economics, and develop skills to investigate regional conflicts around the world. Students will also begin to develop practical skills utilizing geographic concepts such as map reading and creation, as well as weather forecasting.

Unit 1: Geography Workshop

In this unit, you will begin by learning about the different perspectives that underpin the science of geography. Once you have become familiar with those concepts, you will work extensively with the primary tool of a geographer: maps. From examining how maps have evolved over centuries, their different forms and uses, and utilizing maps, you will gain an appreciation for the work that geographers do in our society.

Lesson 1: Introduction to Geography

Objectives:
• Define geography and explain the purpose of studying geography
• Identify and be able to give examples of the elements of geography
• Explain how geographers organize information

Lesson 2: Introduction to Maps

Objectives:
• Define cartography
• Be able to use map scale to determine distances between objects

Lesson 3: Mental Maps (two-day lesson)

Objectives:
• Generate and be able to utilize mental maps

Lesson 4: Patrol Maps (two-day lesson)

Objectives:
• Create and be able to use a patrol map

Lesson 5: Representing the Earth: History

Objectives:
• Understand what longitude and latitude are
• Be able to explain how they are used in navigation

Lesson 6: Absolute Location

Objectives:
• Use longitude and latitude
• Identify absolute location of longitude and latitude

Lesson 7: Regions

Objectives:
• Identify and be able to compare the differences among formal, functional, and perceptual regions

Lesson 8: Shape of the World

Objectives:
• Identify the different types of map projections
• Be able to compare and contrast features of each projection

Lesson 9: Map Maker (two-day lesson)

Objectives:
• Prepare maps that illustrate a variety of political entities, such as precincts, states, or countries
Lesson 10: Careers in Geography (two-day lesson)

Objectives:
- Identify examples of careers that utilize geographic knowledge and skills
- Demonstrate the role that geographers play in society

Lesson 11: Unit Review

Objectives:
- Review key terms from the unit

Lesson 12: Geography Workshop Unit Test

Unit 2: Physical Systems

In this unit, you will examine the physical systems that shape and affect our every day lives through weather and climate. You will begin by examining the major components of Earth's physical systems and how the Earth's relationship with the Sun plays a dramatic role in our world. Once you have completed your study of those systems, you will study how those systems affect the climate and weather all over the planet.

Lesson 1: An Introduction to Physical Systems

Objectives:
- Identify the four main components of Earth's physical systems: the atmosphere, lithosphere, hydrosphere, and biosphere
- Explain how Earth's physical systems interact

Lesson 2: Forces of Change: The Lithosphere

Objectives:
- Describe Earth's internal structure
- Explain how plate tectonics affects Earth's structure
- Explain what causes earthquakes and volcanic eruptions

Lesson 3: Water Cycle: The Hydrosphere

Objectives:
- Identify the stages of the water cycle
- Explain the differences between Earth's salt water and freshwater resources

Lesson 4: The Skies Above: The Atmosphere

Objectives:
- Identify the different layers of the atmosphere
- Describe the main functions of the atmosphere

Lesson 5: Life on Earth: The Biosphere

Objectives:
- Identify the different elements of the biosphere
- Recognize the interactions between the elements of the biosphere

Lesson 6: Climate and Weather

Objectives:
- Identify five climatic factors that affect the weather in a given location
- List the five climatic regions that exist on Earth

Lesson 7: The Earth-Sun Relationship

Objectives:
- Describe how weather and climate are affected by Earth's relationship to the sun
- Explain the greenhouse effect

Lesson 8: Predicting the Weather (two-day lesson)
Lesson 9: Natural Disasters

Objectives:
- Identify the different types of natural disasters
- Discuss how each type of natural disaster occurs


Objectives:
- Identify reasons why the 2004 tsunami was so destructive
- Research steps that have been taken in the wake of the 2004 tsunami to prevent a similar disaster from occurring

Lesson 11: Unit Review

Objectives:
- Identify and explain the main terms and concepts of the unit

Lesson 12: Physical Systems Unit Test

Unit 3: Environmental Issues

In this unit, you will examine the environmental issues that affect the biodiversity of our planet. You will examine the impact that humans have on the environment as well as what can be done to honor and protect it. Your study of population growth, land use, conservation, and climate change will identify factors that can positively influence and protect the planet. You will watch a multimedia presentation in order to investigate the available sources of renewable and nonrenewable energy and explore which sources have the least impact on the natural world.

Lesson 1: Introduction to Environmental Issues

Objectives:
- Identify the broad economic, political, and cultural context of environmental issues
- Provide an example of each of these environmental issues
- Identify environmental issues that affect land, air, and water
- Identify different forms of pollution and be able to relate environmental threats to the loss of biodiversity
- Explain why preserving biodiversity is important and identify the first laws passed to address pollution

Lesson 2: Population Growth

Objectives:
- Identify factors that contribute to population growth
- Understand how birthrates, death rates, and migration affect the rate at which populations change
- Identify how population growth can influence changes within the natural environment

Lesson 3: Land Use (two-day lesson)

Objectives:
- Explain why land is considered a natural resource
- Identify different ways in which humans use land
- Explain how the overuse of land can lead to habitat destruction
- Identify methods of protecting land resources

Lesson 4: Conservation (two-day lesson)

Objectives:
- Define land use and be able to differentiate between different types of land use
Lesson 5: Climate Change

Objectives:
• Describe the nature of conservation efforts and contrast them with the issues caused by land use
• Identify factors that affect climate and distinguish different types of climactic changes
• Recognize why climate change occurs and explain the greenhouse effect
• Define global warming and explain its consequences
• Identify ways in which human activities have influenced climate change

Lesson 6: Energy (two-day lesson)

Objectives:
• Identify types of energy sources and be able to describe how each is transformed into electricity
• Distinguish between renewable and non-renewable energy resources
• Explain how fossil fuels form
• Identify alternative energy sources
• Evaluate the advantages of alternative energy sources

Lesson 7: Investigating Energy Alternatives (two-day lesson)

Objectives:
• Investigate the Marcellus Shale
• Conduct research
• Create a multimedia presentation

Lesson 8: Unit Review

Objectives:
• Identify the main ideas of the unit
• Define and provide examples of the main vocabulary terms from the unit

Lesson 9: Environmental Issues Unit Test

Unit 4: Human Systems

In this unit, you will examine components of culture and how cultures change over time. You will learn about the primary world religions and belief systems of the eastern and western hemispheres. Your exploration of how societies govern themselves will include an analysis of political maps. By the end of this unit, you will draw your own conclusions about the electoral process governing the United States.

Lesson 1: Introduction to Culture

Objectives:
• Define culture
• Identify the components of culture
• Explain the history of anthropology
• Examine how definitions of culture have changed over time
• Explain how culture has been viewed by diverse civilizations and differing ideologies

Lesson 2: How Geography Influences Culture

Objectives:
• Describe how geography can impact aspects of culture
• Identify how factors such as climate and naturally occurring resources can affect daily activities and values
• Discuss specific examples of cultures in which these geographical impacts are evident

Lesson 3: Culture and Society

Objectives:
• Describe and be able to distinguish how culture and society mutually affect one another
• Describe various definitions of sociology
• Recognize key historical figures that shaped modern sociological thought
• Interpret the challenges of developing nations as opposed to wealthier and established nations

**Lesson 4: Introduction to Western Religions**

**Objectives:**
• Identify the main beliefs of three main western religions
• Describe the unique practices of each religion
• Compare and contrast the similarities and differences between the religions

**Lesson 5: Introduction to Eastern Religions**

**Objectives:**
• List and be able to categorize three eastern religions by their unique characteristics
• Describe the unique practices of each religion
• Compare and contrast the similarities and differences between them

**Lesson 6: Introduction to Government**

**Objectives:**
• Identify the characteristics of government
• Be able to describe how the concept of government has changed over time

**Lesson 7: Modern Government**

**Objectives:**
• Identify the development, features, and implementation of several types of modern governments
• Be able to discuss the differences between democracies, republics, and totalitarian governments
• Be able to draw conclusions about the quality of life for citizens under these governmental systems

**Lesson 8: Portfolio - Political Maps (three-day lesson)**

**Objectives:**
• Compare maps of voting patterns or political boundaries
• Draw conclusions about the distribution of political power
• Understand the U.S. electoral process
• Identify current elected officials using maps

**Lesson 9: Economic Systems**

**Objectives:**
• Describe and be able to analyze the evolution of economics from the Mercantile Age to the present day
• Describe the history of mercantilism and capitalism
• Identify relevant economic ideologies, theories, and founding economists
• Analyze the evolution of economics from the Mercantile Age, the Industrial Revolution, and present day

**Lesson 10: Cultural Change**

**Objectives:**
• Recall foundational elements of culture and society
• Be able to hypothesize why cultures change over time
• Analyze how the manifestations of cultural change create lasting shifts either ideologically or materially

**Lesson 11: Unit Review**

**Objectives:**
Lesson 12: Human Systems Unit Test

Unit 5: Migration and Cultural Exchange

In this unit, you will examine what makes the United States a melting pot. You will interpret population patterns and consider solutions for managing population growth. Your study of the causes and effects of migration will include two primary accounts, one from a Mexican migrant and one from an Afghan refugee. Your study of cultural diffusion and multiculturalism will identify factors that unite and divide humans living in the United States and around the world.

Lesson 1: Population

Objectives:
- Identify uses for population pyramids and basic features of the three types of pyramids
- Construct and analyze population pyramids and be able to describe population characteristics of different societies

Lesson 2: Future Trends

Objectives:
- Interpret past population growth
- Understand and examine population graphs
- Predict future population patterns
- Assess solutions for managing population carrying capacity based on a variety of factors

Lesson 3: Migration

Objectives:
- Define migration
- Examples of push/pull factors
- Identify geographic regions with high percentages of immigrants and high percentages of emigration
- Analyze push/pull factors in the context of urban migration

Lesson 4: Immigrants and Refugees

Objectives:
- Recognize and be able to discuss reasons why people willingly or unwillingly move from one country to another
- Describe the causes and effects of refugee migration
- Analyze the pros, cons, and controversy surrounding the topic of international migration

Lesson 5: Stories from a Small World

Objectives:
- Investigate the stories of a Mexican migrant and a refugee in a Kabul women’s shelter
- Evaluate the issues surrounding immigration and refugees
- Relate to the refugee experience in a simulation

Lesson 6: Cultural Exchange

Objectives:
- Define cultural diffusion
- Understand what occurs during cultural exchanges
- Identify examples of cultural diffusion
- Assess how cultural diffusion has affected the concept of globalization

Lesson 7: Multiculturalism

Objectives:
- Define multiculturalism

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Lesson 8: The Most Recognized Symbols on Earth (two-day lesson)

Objectives:
- Define and explain key terms relating to cultural diffusion
- Identify global brands that exemplify cultural diffusion
- Make conclusions about the reasons for global spread
- Hypothesize what global brands communicate about world values

Lesson 9: Unit Review

Objectives:
- Identify the main ideas of the unit
- Define and provide examples of main vocabulary terms from the unit

Lesson 10: Migration and Cultural Exchange Unit Test

Unit 6: Resources and Conflict

In this unit, you will study and learn how to examine ongoing conflicts all over the globe. Using critical thinking and analysis, you will learn what kinds of conflicts exist, who the key players or groups in those conflicts are, and why conflicts may be happening. Through learning how to apply these critical analysis skills, you will also learn how to compare and contrast existing conflicts in order to gain a greater and more complex understanding of future conflicts around the world.

Objectives:
- Review key terms from the unit.

Lesson 1: Introduction to Regional Conflict

Objectives:
- List and be able to describe the underlying causes to regional conflicts

Lesson 2: Xinjiang

Objectives:
- Evaluate regional conflicts based on static criteria
- Compare and contrast conflicts based on static criteria

Lesson 3: Chechnya

Objectives:
- Identify the role economic infrastructure plays in the Chechen conflict
- Identify key players in the conflict

Lesson 4: Burma (Myanmar)

Objectives:
- Describe the political environment in Burma
- Compare it to the political environment in the United States

Lesson 5: Kashmir

Objectives:
- Evaluate the role religion plays in the conflict in Kashmir
- Evaluate how the creation of Pakistan and India affects the conflict in Kashmir

Lesson 6: Quebec (two-day lesson)

Objectives:
- Describe the evolution of Quebec's separatist movement
- Compare the conflict in Quebec with similar separatist movements

Lesson 7: Mexico
Objectives:
- Evaluate the role that the drug trade and crime play in Mexican society
- Describe how those issues affect the United States

**Lesson 8: Somalia**

Objectives:
- Identify and evaluate the factors that contribute to the dire level of poverty in Somalia

**Lesson 9: Sudan**

Objectives:
- Identify the factors underlying the conflict in Sudan

**Lesson 10: Compare and Contrast Regional Conflicts (two-day lesson)**

Objectives:
- Choose and evaluate three regional conflicts from this unit
- Compare and contrast each one against the other two

**Lesson 11: Unit Review**

Objectives:
- Review key terms from the unit

**Lesson 12: Resources and Conflict Unit Test**

**Unit 7: Geography and Society Final Exam**

Objectives:
- Review lesson objectives and key words
- Identify areas of strength and weakness in preparation for the final exam

**Lesson 1: Geography and Society Final Review (two-day lesson)**

Objectives:
- Review unit objectives and key words
- Identify areas of strengths and weakness in preparation for the final exam

**Lesson 2: Geography and Society Final Exam**
APPENDIX A
CURRICULUM

A.2 COURSE GUIDES

e. ART
This document is part of Appendix A: Curriculum.

It includes course guides for each Art class for students in Kindergarten through Grade 8.

- Art K
- Art 1
- Art 2
- Art 3
- Art 4
- Art 5
- Art 6 A
- Art 6 B
- Art 7 A
- Art 7 B
- Art 8 A
- Art 8 B

Course guides provide detailed information on the curriculum including course descriptions, unit summaries, lesson objectives, activities, and assessment types. Course guides include information on:

- Planned instruction (provided in the unit summary of each unit within individual Course Guides)
- Course objectives (provided in the unit and lesson objectives within individual Course Guides)
- Activities (provided in the unit summary and lesson objectives of each unit within individual Course Guides)
ART K
Art K

In this course, the student will explore color, line, and shape. A combination of interactive and hands-on studio projects encourages the student to create art, sharpen fine motor skills, and explore areas of interest in art. Artistic modes include drawing, painting, assembling, and sculpting.

Unit 1: Art Is Everywhere

Everything in the world is made up of five basic elements of shape: circle, dot, angle line, curved line, and straight line. In this unit, your student will learn to recognize these elements of shape in his environment and in presented artworks. He will apply these elements to create original artworks using a variety of media, including crayons, finger paints, and watercolors; he will also use techniques that include cutting and pasting, finger painting, and drawing.

Art is a way for people to record what happens around the world. Your student will create sidewalk art inspired by the Diwali Festival in India, which celebrates the fall season. As a portfolio assessment, your student will create a mixed-media collage using the five elements of shape.

Objectives:
- Identify and create the elements of shape
- Apply the five elements of shape to original works of art
- Describe how other cultures use art to celebrate holidays and traditions
- Create mixed-media and collage art

Lesson 1: Art Is Everywhere!

Objectives:
- Identify and describe the five elements of shape in the environment and in artworks
- Illustrate the five elements of shape using finger paints

Lesson 2: Let’s Draw Lines

Objectives:
- Draw variations of lines
- Draw straight lines using a ruler
- Create art using crayons, markers, and lines

Lesson 3: Lots and Lots of Dots

Objectives:
- Create a mixed-media collage using cut-out paper dots and dot-shaped objects

Lesson 4: Art Around the World

Objectives:
- Create a Diwali pattern using chalk
- Describe a family tradition

Lesson 5: Learning to See and Draw Like an Artist

Objectives:
- Observe and recreate elements of shape using a pencil
- Create original collage art using an online program
- Demonstrate creativity and knowledge of elements of shape in a collage

Lesson 6: Elements of Art

Objectives:
- Create original artwork using the five elements of shape
- Select and use a variety of media to create art
- Use the numbers 1–5 in original artwork

Unit 2: Coloring the Season
In this unit, your student will build on her knowledge of art elements and begin to explore the color wheel. She will use various art techniques, including watercolor painting and crayon resist, and will use a variety of media including crayons, pencil, watercolors, and objects from nature. She will create original artworks inspired by the season and a Monarch butterfly watercolor painting inspired by the annual migration of Monarch butterflies. As a portfolio assessment, your student will create a fall-themed painting.

Objectives:
- Identify and describe warm and cool colors and use them in creating art
- Describe migration and why animals migrate
- Describe how art is used in everyday life
- Respond to and make judgments about artwork
- Demonstrate emerging awareness of balance and space in artwork

Lesson 1: Colors All Around Us

Objectives:
- Identify warm and cool colors
- Identify primary and secondary colors
- Identify opposite colors
- Create original artwork using warm and cool colors

Lesson 2: Fluttering Colors

Objectives:
- Demonstrate beginning awareness of the concept of symmetry as a mirror image
- Describe migration and why monarch butterflies migrate
- Create a watercolor painting of a monarch butterfly

Lesson 3: See and Draw Like an Artist

Objectives:
- Observe and recreate the elements of shape and mirror images using pencil
- Create a still life arrangement which demonstrates emerging awareness of balance and space

Lesson 4: Autumn Arrangement

Objectives:
- Create a fall-themed table centerpiece using objects found in nature and around the house
- Demonstrate emerging awareness of balance and space in an artwork

Lesson 5: Painting the Seasons

Objectives:
- Paint a fall scene using watercolors and crayons
- Demonstrate emerging awareness of space and balance within an artwork
- Demonstrate understanding of warm and cool colors by utilizing them appropriately within an artwork
- Demonstrate emerging awareness of a horizon line

Unit 3: Winter Is Taking Shape

In this unit, your student will continue to build on his knowledge of art elements and colors and begin to explore shapes, texture, and pattern in artworks. He will create original artworks inspired by the season. As a portfolio assessment, your student will use shapes, texture, and pattern to make a kite inspired by those made traditionally during the Korean Lunar New Year.

Objectives:
- Identify and describe basic shapes in artworks and use them in creating art
- Relate art to personal experiences and the experiences of others
- Identify subject, texture, and pattern in artworks
- Respond to and make judgments about artworks
- Demonstrate emerging awareness of balance and space in artwork
Lesson 1: Shapes in Art

Objectives:
- Identify and draw basic shapes: circle, oval, triangle, square, and rectangle
- Create a mosaic design using crayons and black marker

Lesson 2: Snowflakes

Objectives:
- Create snowflakes by cutting shapes into coffee filters
- Identify and create patterns

Lesson 3: It's Wintertime!

Objectives:
- Create a mixed-media snowman using paint, objects, and glue
- Identify and use texture in an original artwork

Lesson 4: See and Draw Like an Artist

Objectives:
- Observe and recreate the elements of shape using pencil
- Create patterns with shape

Lesson 5: Art Around the World

Objectives:
- Create a kite that shows shapes, pattern, and balance
- Demonstrate understanding of mixed media, texture, pattern, and basic shapes

Unit 4: Art Forms

In this unit, your student will continue to build on her knowledge of art elements and principles of design, exploring balance and symmetry. She will begin to explore art as form, or sculpture, and use various media, such as clay, yarn, and other arts and crafts materials to create art forms. She will create original artworks inspired by animals, a mask inspired by the Mardi Gras celebration, and a tree sculpture inspired by a Bulgarian tradition. In a cross-curricular activity, she will paint a mural inspired by the book, Abuela. As a portfolio assessment, your student will create a clay sculpture of a playground.

Objectives:
- Identify and describe form in artworks
- Relate art to personal experiences and others’ experiences
- Use a variety of media types to create works of art
- Respond to and make judgments about artwork
- Demonstrate emerging awareness of balance and space in artwork

Lesson 1: Clay Animals

Objectives:
- Identify elements of shape in sculptures
- Relate sculptures to history and cultures
- Create an animal sculpture using clay and the elements of shape

Lesson 2: Carnival Mask

Objectives:
- Create an animal mask using mixed media
- Describe a mixed-media artwork

Lesson 3: Learning to See and Draw Like an Artist

Objectives:
- Use mental imagery to visualize artwork
- Observe and recreate the elements of shape using pencil
- Demonstrate balance and space in an artwork composition
Lesson 4: Art Around the World

Objectives:
- Create an artwork using twigs, yarn, and glue
- Describe the traditions of the Bulgarian “Baba Marta” celebration
- Identify the elements within artworks

Lesson 5: Abuela Mural

Objectives:
- Describe a mural
- Design a mural using paint and observation
- Identify elements of art within an illustration

Lesson 6: Art All Around Us

Objectives:
- Create a playground scene using sculpture techniques
- Identify and use mixed-media in an original artwork

Unit 5: Springtime Painting

In this unit, your student will continue to build on his knowledge of art elements and principles of design, exploring patterns in art, different media (including tissue paper, mud, watercolors, and sponges), and processes and tools for painting. He will create original artwork and crafts inspired by the season, as well as a Malian mud cloth inspired by a tradition of the Malian people in Africa. As a portfolio assessment, your student will cut basic and more complex shapes out of sponges and then create a sponge and finger paint mural.

Objectives:
- Identify and describe forms in artwork
- Relate art to personal experiences and others’ experiences
- Use a variety of media types to create works of art
- Respond to and make judgments about artwork
- Demonstrate emerging awareness of balance and space in artwork

Lesson 1: It’s Springtime

Objectives:
- Define watercolor artwork
- Create a painting using watercolors
- Identify the five elements of art used in a watercolor painting

Lesson 2: Blooming Flowers

Objectives:
- Create a vase of flowers using mixed media
- Identify the five elements of art in your artwork

Lesson 3: Learning to See Like an Artist

Objectives:
- Use mental imagery to visualize artwork
- Create an original watercolor
- Demonstrate balance and space in an artwork composition

Lesson 4: Egg Carton Monsters

Objectives:
- Create recycled artwork using mixed media
- Define recycled materials
- Identify the types of media used in a mixed-media artwork

Lesson 5: Art Around the World

Objectives:
- Create a traditional mud painting
- Differentiate between patterned and non-patterned sequences
Lesson 6: Painting Shapes

Objectives:
- Categorize the five elements of shape
- Create texture in artwork
- Create an original artwork using finger and sponge painting

Unit 6: Summertime Art

In this culminating unit, your student will continue to explore art elements, processes, and techniques, and apply them to fun arts and crafts projects. She will create a sun print, learn how to make multi-color crayons, and use objects from nature to inspire her art. She will create original artworks inspired by the season and a sunshine flag inspired by Inti Raymi, an Ecuadorian tradition. As a portfolio assessment, your student will choose the media, techniques, and processes to create an original artwork with the theme, “My Art.”

Objectives:
- Identify and describe elements of art in the environment and in artworks
- Relate art to personal experiences and to the experiences of others
- Develop and organize ideas from the environment to create original artwork
- Respond to and make judgments about artworks

Lesson 1: Here Comes Summer

Objectives:
- Classify colors as either warm or cool
- Identify warm and cool colors found in nature during summertime
- Draw a summer nature scene using warm and cool colors

Lesson 2: Outdoor Art

Objectives:
- Identify natural objects to be used in artwork
- Use sun-printing techniques to create an original artwork
- Describe textures found in nature

Lesson 3: See and Draw Like an Artist

Objectives:
- Use mental imagery to visualize artwork
- Draw a duplication image of summer shapes using the basic elements
- Create an original online drawing using natural elements
- Analyze how the 5 elements of shape were used in an original artwork

Lesson 4: Art Around the World

Objectives:
- Discuss cultural traditions of the Inti Raymi celebration in Ecuador
- Create a model of a sun flag from Ecuador

Lesson 5: Cooking Up Crayons

Objectives:
- Identify different colors
- Use primary colors to create secondary colors
- Draw a picture using newly-created tools

Lesson 6: My Art

Objectives:
- Use elements of shape to create an original artwork
- Incorporate cool and warm colors into an original artwork
- Identify primary and secondary colors in an original artwork
ART 1
Art 1

In this course the student will develop and use skills in art, building on his knowledge about line, shape, and color. Your student will be introduced to other elements of art as well as to the principles of design. This course will enable your student to develop his creative side through the introduction of art media and the exploration of art themes. The activities in this course include practicing drawing, learning about color, creating designs using balance and patterns, and working with three dimensional forms.

Unit 1: Elements of Art

This unit addresses the elements of art. The elements of art are line, shape, color, value, texture, space, and form. In this unit your student will learn about the seven art elements and how to use them to create a work of art. Each lesson in this unit will address a different aspect of the elements of art, and how each element combines with another during the creative process. As your student applies the elements of art to his work, he will gain a greater understanding of and appreciation for the different styles of art and the techniques used to create them.

Objectives:
- Identify the elements of art: color, form, line, shape, texture, value
- Develop skills in applying the elements of art to personal artwork

Lesson 1: Learning About Lines: Practice Drawing

Objectives:
- Demonstrate an understanding of line as a element of art
- Develop knowledge about line by practice - drawing different kinds of lines

Lesson 2: Lines: Making a Drawing

Objectives:
- Demonstrate an understanding that line is an element of art
- Demonstrate an understanding that lines are used to express ideas in a visual way

Lesson 3: Shapes

Objectives:
- Identify shape as an element of art
- Demonstrate an understanding that lines make shapes
- Differentiate between geometric and organic shapes

Lesson 4: Organic Shape Collage

Objectives:
- Continue to demonstrate an understanding that shape is an element of art
- Demonstrate an understanding of the difference between geometric and organic shapes
- Demonstrate an understanding of collage techniques

Lesson 5: Draw Animals Using Shapes

Objectives:
- Demonstrate an understanding of shape as an important part of artmaking

Lesson 6: Mixing Colors

Objectives:
- Demonstrate an understanding of color as an element of art
- Demonstrate an understanding of primary and secondary colors
- Demonstrate an understanding that primary colors are mixed to make secondary colors

Lesson 7: Color: Paint an Animal

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Objectives:
• Demonstrate an understanding of primary and secondary colors
• Demonstrate an understanding of mixing colors
• Demonstrate an understanding of the effects different colors have on works of art

Lesson 8: Color Value: Paint a Landscape

Objectives:
• Demonstrate an understanding of color value
• Demonstrate an understanding of tints and shades

Lesson 9: Discovering Texture

Objectives:
• Demonstrate an understanding of texture as an element of art
• Demonstrate an understanding of the difference between visual and tactile texture

Lesson 10: Form and Texture in Clay

Objectives:
• Identify form as an element of art
• Demonstrate an understanding of the difference between shape and form

Unit 2: Principles of Design

In this unit, your student will learn about the principles of design. Artists use the principles of design to create effective artwork. The principles of design are combined with the elements of art to enable the artwork to become a unique visual expression. By learning the principles of design, your student will discover new and exciting ways to make her artwork creatively effective. Understanding the principles of design will also enable your student to better appreciate works of art when they are presented to her. The principles of art are balance, emphasis, contrast, harmony, movement, pattern, rhythm, and unity.

Objectives:
• Demonstrate an understanding of pattern as a principle of design
• Differentiate between formal and informal balance
• Demonstrate an understanding of the concept of emphasis in artwork
• Demonstrate an understanding of the concepts of movement and rhythm in artwork

Lesson 1: Patterns All Around Us

Objectives:
• Become familiar with pattern as a principle of design
• Demonstrate an understanding of pattern by printing a pattern

Lesson 2: In Balance

Objectives:
• Become familiar with balance as a principle of design
• Differentiate between formal and informal balance

Lesson 3: Emphasis in Artwork

Objectives:
• Demonstrate an understanding of emphasis in artwork
• Demonstrate an understanding of the term "focal point"

Lesson 4: Creating Contrast in Art

Objectives:
• Become familiar with contrast as a principle of design
• Demonstrate an understanding of how contrast is used in artwork

Lesson 5: Getting the Movement and Rhythm in Art

Objectives:
Lesson 6: Working with Harmony and Unity

Objectives:
- Demonstrate an understanding of harmony and unity as principles of design

Unit 3: Art Media

Art media are the materials and supplies that are used in the creation of works of art. The lessons in this unit will enable your student to become familiar with various types of art media and to explore creative freedom. The lessons will also enable your student to use art materials in a safe and responsible way. In this unit, your student will work with a variety of art media including paint, crayons, clay, and markers as well as objects found in the home and the outdoors.

Objectives:
- Explore the concept of form by creating a clay figure
- Become familiar with the technique of collage
- Explore and experiment with paper mosaic technique
- Construct a mask using a variety of art media
- Construct an assemblage using found objects

Lesson 1: Magazine Photo Collage

Objectives:
- Demonstrate an understanding of the medium of photo collage
- Demonstrate an understanding of the term composition

Lesson 2: Nighttime Crayon Resist

Objectives:
- Demonstrate an understanding of the crayon resist technique
- Demonstrate an understanding of how color value is used to show a specific time of day

Lesson 3: Monoprinting with Paint

Objectives:
- Demonstrate an understanding of the printing process by creating a monoprint

Lesson 4: Magical Mosaics (two-day lesson)

Objectives:
- Demonstrate an understanding of the mosaic technique

Lesson 5: Mixed Media African Mask

Objectives:
- Demonstrate the ability to construct a work of art using a variety of art media
- Demonstrate an understanding of formal balance

Lesson 6: The Potter's Art

Objectives:
- Demonstrate an understanding of ceramic forms
- Distinguish types of pottery from different cultures and time periods
- Demonstrate an understanding of how pottery is used for a variety of purposes in different cultures

Unit 4: Themes in Art

Artists often use subject matter taken from their environments as well as from objects seen and used in everyday life. This unit is designed to enable your student to develop her observational and critical thinking skills. She will be introduced to several art themes, including portrait, still life, landscape, and themes that focus on special occasions with family.
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and friends. Your student will continue to work with a variety of art media and techniques as she explores and develops her creative side.

Objectives:
- Demonstrate an understanding of portrait as a theme in art
- Use the elements of art to draw a still life using everyday objects
- Express an understanding of scientific aspects of the ocean
- Demonstrate an understanding of the celebrations of various cultures
- Demonstrate an understanding of personal history

**Lesson 1: My Self-Portrait (two-day lesson)**

Objectives:
- Demonstrate an understanding of portrait as a theme in art
- Demonstrate an understanding of the correct placement of facial features
- Demonstrate an understanding of the cultural characteristics of portraits

**Lesson 2: A Portrait of My Family**

Objectives:
- Understand family portraits as a theme in art
- Understand portraits as a means of recording family history
- Demonstrate understanding of placement and proportion

**Lesson 3: Objects from Every Day**

Objectives:
- Understand still life as a theme in art
- Demonstrate an understanding of proportion
- Demonstrate an understanding of the technique of overlapping

**Lesson 4: Under the Sea Crayon Resist**

Objectives:
- Demonstrate an understanding about life in the ocean
- Understand the ocean as an important ecosystem
- Demonstrate an understanding of crayon resist techniques
- Demonstrate an understanding of how the environment influences art

**Lesson 5: A Special Occasion**

Objectives:
- Demonstrate an understanding of how special occasions are celebrated in different cultures
- Demonstrate an understanding of how elements of art can be used to illustrate a special occasion

**Lesson 6: A Story Quilt Square (two-day lesson)**

Objectives:
- Demonstrate an understanding of symbols
- Become familiar with story quilts as a theme in art
ART 2
Art 2

In this course, your student will continue to develop and use skills in art, building on his knowledge about line, shape, and color. Your student will be introduced to other art elements as well as to the principles of design. This course will enable your student to develop his creative side through the introduction of art media and through the exploration of art themes. The activities in this course include drawing, learning about color, creating designs using balance and patterns, and working with three-dimensional forms.

Unit 1: Laying the Foundation

This unit addresses the basic elements of art, which are line, shape, color, value, texture, space, and form. In this unit your student will learn about the seven art elements and how to use them to create a work of art. Each lesson in this unit will address a different aspect of the elements of art, and how each element combines with another during the creative process. As your student applies the elements of art to his work, he will gain a greater understanding of and appreciation for the different styles of art and the techniques used to create them.

Objectives:
• Identify the elements of art: color, form, line, shape, texture, value
• Develop skills in applying the elements of art to personal artwork

Lesson 1: What Can You Do with a Line?

Objectives:
• Develop familiarity with different kinds of lines
• Demonstrate an understanding of what artists do with different lines

Lesson 2: Everything Has a Shape

Objectives:
• Learn about the difference between geometric and organic shapes
• Develop familiarity with how shapes are combined in artwork

Lesson 3: Texture

Objectives:
• Learn about the connection between line and texture
• Demonstrate an understanding of the difference between visual texture and tactile texture
• Develop familiarity with the different techniques used by artists to show visual texture

Lesson 4: Color in Your World

Objectives:
• Learn about primary colors
• Demonstrate an understanding of how primary colors are mixed to make secondary colors

Lesson 5: Value

Objectives:
• Demonstrate an understanding of how colors are made lighter and darker
• Learn about shadows

Lesson 6: Seeing in Three Dimensions

Objectives:
• Demonstrate an understanding of the difference between two-dimensional shape and three-dimensional form
• Learn about three-dimensional sculpture, including "sculpture in the round"

Lesson 7: The Area Around You

Objectives:
Identify space as an element of art
Learn about the picture plane as "space"
Demonstrate an understanding of space in artwork
Understand simple perspective (near and far objects) and overlapping

Unit 2: Principles of Art

In this unit, your student will learn about the principles of design. Artists use the principles of design to create effective artwork. The principles of design are combined with the elements of art to enable the artwork to become a unique visual expression. By learning the principles of design, your student will discover new and exciting ways to make her artwork creatively effective. Understanding the principles of design will also enable your student to better appreciate works of art when they are presented to her. The principles of art are balance, emphasis, contrast, harmony, movement, pattern, rhythm, and unity.

Objectives:
- Demonstrate an understanding of pattern as a principle of design
- Differentiate between formal and informal balance
- Demonstrate an understanding of unity and harmony in artwork
- Demonstrate an understanding of the concept of emphasis in artwork
- Demonstrate an understanding of the concepts of movement and rhythm in artwork

Lesson 1: Get in Balance

Objectives:
- Learn about the principle of balance
- Demonstrate an understanding of the difference between formal and informal balance

Lesson 2: Pattern

Objectives:
- Learn about the principle of pattern
- Understand how colors, lines, and shapes can be repeated in order to make a pattern
- Become familiar with the use of patterns in artwork

Lesson 3: Movement and Rhythm

Objectives:
- Learn about the principles of movement and rhythm
- Develop an understanding of how artists use movement and rhythm to keep the viewer interested and to move the viewer's eye through an artwork
- Demonstrate knowledge of the elements of line, shape, and color as they are used to create movement and rhythm in artwork

Lesson 4: Unity and Harmony

Objectives:
- Learn about the principles of unity and harmony
- Develop an understanding of the use of color, line, texture, and shape as they are used to create unity and harmony in a work of art

Lesson 5: Variety

Objectives:
- Learn about the principle of variety and its function in art
- Understand how using a variety of colors, shapes, lines, textures, and patterns can make artwork unique and fun to look at

Lesson 6: Contrast and Emphasis

Objectives:
- Explore the principles of emphasis and contrast
- Develop an understanding of focal point as the most important part of a work of art
- Learn about the ways that artists create the focal point in an artwork, including the use of contrast
Unit 3: Mixin the Media: The Making of Art

Art media are the materials and supplies that are used in the creation of works of art. The lessons in this unit will enable your student to become familiar with various types of art media and to explore creative freedom. The lessons will also enable your student to use art materials in a safe and responsible way. In this unit, your student will work with a variety of art media, including paint, crayons, clay, and markers, as well as objects found in the home and the outdoors.

Objectives:
- Explore the concept of form by creating a clay figure
- Become familiar with the technique of collage
- Explore and experiment with paper mosaic technique
- Construct a mask using a variety of art media
- Construct an assemblage using found objects

Lesson 1: Art Where You Live

Objectives:
- Understand art as a reflection of the environment in which we live
- Learn how artists throughout time have depicted the environment around them

Lesson 2: Games We Like to Play

Objectives:
- Learn about techniques used to draw people in motion
- Develop an understanding of muscles and joints and how they help us move

Lesson 3: The Ins and Outs of Weaving

Objectives:
- Develop knowledge of different kinds of weaving, including textiles and basketry
- Understand the loom and its function, as well as warp threads and weft threads
- Learn about weaving from different cultures, including kente cloth from West Africa

Lesson 4: Puppets Tell a Story

Objectives:
- Learn about different styles of puppets from different cultures
- Understand that puppets are used to actively tell a story or a fable with a moral
- Learn about various kinds of puppets of different sizes and materials

Lesson 5: Sculpture: Art We Can Walk Around

Objectives:
- Learn about different kinds of sculpture
- Learn to differentiate between sculpture in the round and relief sculpture
- Become familiar with various types of sculpture

Lesson 6: Art to Wear: Jewelry

Objectives:
- Understand jewelry as a type of applied art
- Become familiar with some different types of jewelry
- Learn about how the making and wearing of jewelry or other adornment has different meanings in various cultures around the world

Lesson 7: Assembling All Materials! (two-day lesson)

Objectives:
- Learn about the technique of assemblage
- Look at examples of assemblage artworks that have been created from found objects
Unit 4: Connections: Art in Other Subjects

Artists often use subject matter taken from their environments as well as from objects seen and used in everyday life. This unit is designed to enable your student to develop her observational and critical thinking skills. She will be introduced to several art themes, including portrait, still life, landscape, and themes that focus on special occasions with family and friends. Your student will continue to work with a variety of art media and techniques as she explores and develops her creative side.

Objectives:
- Demonstrate an understanding of portrait as a theme in art
- Use the elements of art to draw a still life using everyday objects
- Express an understanding of scientific aspects of the ocean
- Demonstrate an understanding of the celebrations of various cultures
- Demonstrate an understanding of personal history

Lesson 1: Art and Science: Rainforest Printmaking (two-day lesson)

Objectives:
- Learn about the connections between art and science
- Develop a familiarity with the influence of science on works of art
- Become familiar with the nature-inspired art of Henri Rousseau

Lesson 2: Art and Math: You Take the Cake!

Objectives:
- Learn about the connections between art and math
- Demonstrate an understanding of simple fractions by creating a painting of a cake that shows fractional parts
- Learn about the mathematically-inspired art of Wayne Thiebaud

Lesson 3: Art and Language: Letter Designs Using Your Name (two-day lesson)

Objectives:
- Learn about the connections between art and language
- Become familiar with words and letters as an ingredient of design
- Develop knowledge about the incorporation of words into artworks, including drawing, painting, and sculpture

Lesson 4: Art and History: A Portrait from the Past (two-day lesson)

Objectives:
- Learn about the connections between art and history
- Develop an understanding of portraits and their significance—including the concept of a self-portrait—and how portraits can reveal the ways that people lived in past periods
- Demonstrate an understanding of portraits and history by drawing a self-portrait that shows details from another period in time

Lesson 5: Art and Seasons: Four Seasons Drawing

Objectives:
- Learn about the seasons as they are expressed through forms of art
- Develop and demonstrate familiarity with the main characteristics of each season, and with the ways in which artists depict seasons in their work

Lesson 6: Art and Nutrition: Make a Colorful Food Collage

Objectives:
- Learn about the concept of nutrition and eating well
- Become familiar with the presence of food in works of art, including advertisements
- Learn and demonstrate understanding of the technique of collage
ART 3
Art 3

This course focuses on arts and crafts inspired by the four seasons. The student will examine and create artwork based on seasonal characteristics or common cultural trends. The student will be exposed to art history, art criticism, and art production activities with a multicultural focus. Creative freedom is experienced as the student uses his imagination and several types of media and processes. These processes include drawing, painting, printmaking, sculpture, bookmaking, and techniques for creating crafts and fiber arts.

Unit 1: Summer Strokes

In this unit, your student will explore his summer experiences while learning about basic drawing, design, and watercolor techniques. Topics include patterns, portraits, seascapes, and book arts. He will have the opportunity to draw and paint, as well as construct a book.

Objectives:

Lesson 1: Practice and Patience

Objectives:
- Define the terms drawing, contour line, and shading
- Distinguish between abstract and representational art
- Demonstrate the techniques of contour drawing and shading using a pencil

Lesson 2: Back-to-School Expressions: Pattern Portraits

Objectives:
- Define the terms pattern and portrait
- Draw an expressive line portrait that includes a variety of patterns

Lesson 3: Summer Tunnel Book (two-day lesson)

Objectives:
- Define the terms artists' books and book arts
- Construct a tunnel-style book based on a summer experience

Lesson 4: Using Watercolor

Objectives:
- Define the term watercolor
- Demonstrate watercolor techniques

Lesson 5: A View of the Water: A Watercolor Seascapes

Objectives:
- Define the term seascape
- Distinguish between the background, middle ground, and foreground of a picture
- Draw and paint a watercolor seascape

Lesson 6: Unit 1 Review and Test

Objectives:
- Review the terms and concepts presented in Unit 1

Unit 2: Autumn Arts

In this unit, your student will explore her autumn experiences while learning about basic drawing, paper construction, and clay handbuilding techniques. She will have the opportunity to draw and create three-dimensional objects. Your student will also explore basic aesthetics by describing, judging, and drawing conclusions about a historical artwork.

Objectives:
- Demonstrate basic drawing, paper construction, and clay handbuilding techniques
- Distinguish between types of shape and balance
- Identify, describe, judge, and draw conclusions about a historical artwork
- Recognize masks and pottery as three-dimensional art forms
Lesson 1: A Leaf Montage (two-day lesson)

Objectives:
- Distinguish between organic and geometric shapes
- Compose a montage drawing using overlapping, geometric, and organic leaf shapes

Lesson 2: Harvest Still Life (two-day lesson)

Objectives:
- Define the term still life
- Demonstrate one or more of the following drawing techniques: shading, overlapping, and changes in object size and placement
- Create a still life drawing from life

Lesson 3: Masks from Many Cultures (two-day lesson)

Objectives:
- Recognize symmetrical objects and images
- List the ways masks are used
- Construct a three-dimensional mask from paper

Lesson 4: Pottery and People (two-day lesson)

Objectives:
- Define the terms clay, pinch pot, and coil
- Build a homemade clay pot using pinch and coil construction

Lesson 5: Family and Friends

Objectives:
- Describe, judge, and draw conclusions about an artwork
- Identify an important artist and artwork from history

Lesson 6: Unit 2 Review and Test

Objectives:
- Review the terms and concepts presented in Unit 2

Unit 3: Winter Highlights

In this unit, your student will explore his winter experiences while learning about drawing faces, printmaking, fiber arts, and adding shadows to pictures. He will have the opportunity to draw, paint, print, and weave. Your student will also explore the artwork of an important American artist from history.

Objectives:
- Demonstrate basic printmaking, weaving, painting, and drawing techniques
- Distinguish between types of texture and line
- Recognize the artwork of a historical American artist
- Define common design, weaving, and drawing terms

Lesson 1: Fur, Fuzz, and Feathers (two-day lesson)

Objectives:
- Define the terms line, texture, and print
- Distinguish between line directions
- Create an animal print using line and texture

Lesson 2: Weaving Warmth (two-day lesson)

Objectives:
- Define the terms weaving and loom
- Distinguish between the warp and weft
- Demonstrate the plain weave technique

Lesson 3: Seeing Shadows (two-day lesson)
Objectives:

• Recognize the purpose of shadows in realistic artworks
• Describe the meaning of the term light source
• Paint a watercolor landscape with shadows

Lesson 4: Portraits and Importance (two-day lesson)

Objectives:

• Describe the functions of a portrait
• Identify an important artist from history
• Apply the proportions of a human face
• Create a miniature self-portrait

Lesson 5: Unit 3 Review and Test

Objectives:

• Review the terms and concepts presented in Unit 3

Unit 4: Spring into Art

In this unit, your student will explore her spring experiences while learning about basic drawing, collage, and clay handbuilding techniques. Topics include illustration, Japanese prints, weather in art, Mexican folk art, and drawing people in motion. Your student will have the opportunity to draw, paint, collage, and sculpt. She will also explore basic aesthetics by describing, judging, and drawing conclusions about a historical artwork.

Objectives:

• Demonstrate basic drawing, watercolor, sculpture, and collage techniques
• Distinguish between types of textures, warm and cool colors, and artists' media
• Recognize the artwork of historical, contemporary, and folk artists
• Identify, describe, judge, and draw conclusions about a historical artwork
• Define common drawing, design, sculpture, and art history terms

Lesson 1: Flowers, Sprouts, and Weeds

Objectives:

• Define the terms collage and illustration
• Identify a contemporary artist
• Apply watercolor and drawing techniques to create texture
• Design a collage illustrating plants and creatures

Lesson 2: Weather in Art

Objectives:

• Distinguish between warm and cool colors
• Describe, judge, and draw conclusions about an artwork
• Identify an important artist and artwork from history

Lesson 3: Sensational Suns (three-day lesson)

Objectives:

• Define the terms folk art, relief, and sculpture
• Create a sun design using patterns
• Build a relief sun sculpture using clay slab construction

Lesson 4: Outdoor Action Figures (two-day lesson)

Objectives:

• Draw a human figure in a pose
• Create a self-portrait drawing with you in motion
• Identify three ways an artist can show motion

Lesson 5: Unit 4 Review and Test

Objectives:

• Review the terms and concepts presented in Unit 4
ART 4
Art 4

In this course the student will be introduced to works of art from several continents. Before humans developed written language, they recorded their thoughts and ideas using what we now call visual art. Throughout time the growth and development of civilizations around the world have been recorded and defined through the works of artists. Students will become familiar with the art elements and the principles of design and with how these elements and principles are applied to create visual art in diverse cultures.

Unit 1: A European Adventure

This unit will acquaint your student with some of the artwork of the European continent. Throughout history, artists have chosen subjects from many sources. Some artists have chosen to express themselves by centering their art on what they see in their home or in the homes of other people. Other artists prefer to express themselves through what they see in the natural world. We can find subjects for art in many places. In order to creatively express impressions and feelings in a visually effective way, artists use the elements of art: line, color, value, texture, form, and space. The elements of art provide a solid foundation that will enable your student to develop his unique creative abilities.

Objectives:
- Demonstrate an understanding of the elements of art
- Differentiate between realistic and abstract interpretation of subject matter
- Demonstrate the ability to create moods using color values
- Become familiar with artwork created by major European artists

Lesson 1: Expressions in Lines

Objectives:
- Demonstrate an understanding of the art element of line
- Identify the art element of line as a means of expression
- Compare realistic and expressionistic styles of artwork

Lesson 2: Texture: What You See and Feel

Objectives:
- Demonstrate an understanding of texture as an element of art
- Differentiate between visual and tactile texture

Lesson 3: All About Color

Objectives:
- Demonstrate an understanding of color value
- Compare and contrast color values in artwork
- Demonstrate an understanding how to make tints and shades

Lesson 4: Warm and Cool Expressions

Objectives:
- Demonstrate an understanding of the properties of color
- Differentiate between warm and cool colors
- Demonstrate an understanding of how color can create a mood in artwork

Lesson 5: Picasso and the Circus

Objectives:
- Demonstrate an understanding of background, middleground, and foreground

Lesson 6: Shape, Space, Cityscape (two-day lesson)

Objectives:
- Demonstrate an understanding of shape and space as elements of art
- Differentiate between geometric and organic shapes
- Become familiar with the medium of art books
Lesson 7: Forms and Shapes: Still Life

Objectives:
- Differentiate between forms and shapes
- Demonstrate an understanding of light and shadow
- Demonstrate an understanding of composition in artwork

Lesson 8: Create a Colorful Portrait

Objectives:
- Compare and contrast styles of portraits
- Demonstrate an understanding of realistic style
- Demonstrate an understanding about correct placement of facial features

Lesson 9: Unit 1 Review and Test

Objectives:
- Review the terms and concepts presented in Unit 1

Unit 2: African Travels

Why do we study African art? As your student moves through the lessons in this unit, she will see that African art is different from art in other cultures. Art in Africa is used as an important part of ceremonies, rituals, and dances. Masks, carvings, weavings, and other art forms have special meanings and specific functions for the people who create and use them. The art of Africa has had a strong influence on the art in Europe and America. This unit will explore the elements of art and the unique and fascinating way the elements are used in African artistic expression.

Objectives:
- Identify structures and functions in African art forms
- Demonstrate an understanding of the elements of art and how they are used in African artistic expression
- Explore and interpret African art forms and their specific meanings

Lesson 1: African Style: Changes and Interpretations

Objectives:
- Identify how African art forms changed established European art

Lesson 2: Ceremonial Dress: Create a Mask with Meaning

Objectives:
- Demonstrate the ability to identify the three types of African masks
- Demonstrate an understanding of the purposes of African masks
- Demonstrate an understanding of symmetrical balance

Lesson 3: Special Guardians: Kota Figures

Objectives:
- Identify the Gabon and Congo regions in West Africa
- Develop an understanding of the Kota people and the Kota image
- Demonstrate an understanding of cardboard construction techniques

Lesson 4: Mudcloth Resist

Objectives:
- Demonstrate an understanding of how patterns are used in African textiles
- Demonstrate an understanding of emphasis, pattern, and rhythm in design

Lesson 5: Symbols in Cloth: Adinkra Designs

Objectives:
- Demonstrate an understanding of symbols
- Demonstrate an understanding of symbols on adinkra cloth

Lesson 6: Colorful Beads (two-day lesson)
Objectives:
- Demonstrate an understanding of how beads are used in Yoruba culture
- Demonstrate an understanding of how color is used in Yoruba culture

Lesson 7: A View from the Side: Egyptian Profiles

Objectives:
- Demonstrate an understanding of life in ancient Egypt
- Demonstrate an understanding of proportion
- Demonstrate an understanding of Egyptian wall paintings

Lesson 8: Unit 2 Review and Test

Objectives:
- Review the terms and concepts presented in Unit 2

Unit 3: Above and Below: Art in the Americas

This unit will present art forms of North and South America. The unit will begin with lessons that focus on African influences and contributions to society in both North and South America. Lessons will also focus on the artistic contributions of the Harlem Renaissance and Abstract Expressionism, two movements in art that are uniquely American. Other lessons will present the contributions to art by native people in North and South America. Your student will see how the elements of art and the principles of design have been applied using techniques that make art in the Americas a truly unique experience.

Objectives:
- Demonstrate an understanding of the contributions of African people to the New World
- Demonstrate an understanding of major art movements in North America
- Demonstrate an understanding of the artistic expressions of native cultures
- Identify how the elements of art and principles of design are used to create artwork that is unique to cultures in the Americas

Lesson 1: Transition to the New World

Objectives:
- Demonstrate an understanding of African contributions to cultures in the New World

Lesson 2: The Harlem Renaissance

Objectives:
- Demonstrate an understanding of the art forms of the Harlem Renaissance

Lesson 3: Expressing Mood: Abstract Expressionism

Objectives:
- Demonstrate an understanding of abstract expression
- Demonstrate an understanding of how abstract expressionism changed art
- Demonstrate an understanding of how the elements of art are used in abstract expressionism

Lesson 4: Beauty Around Us: Designs of Native America (two-day lesson)

Objectives:
- Demonstrate an understanding of Native American artifact functions
- Demonstrate an understanding of some Native American traditions

Lesson 5: The Art of the Kuna: Mola Designs

Objectives:
- Demonstrate an understanding of the Kuna people
- Demonstrate an understanding of mola design standards

Lesson 6: Unit Review and Test
Unit 4: The Expressive Art of Asia

Asia is the world’s largest continent and boasts many distinct cultures. In this unit, your student will learn about art forms from China, India, Indonesia, and Japan. The art of Asia represents the great diversity of the people who live there; studying this wealth of creative knowledge will help your student develop an understanding of and appreciation for Asia’s varied cultures.

Objectives:
- Demonstrate an understanding of the various art forms and techniques of Asia
- Demonstrate an understanding of how the elements of art are used in expressive ways
- Demonstrate an appreciation for Asia’s diverse cultures and people

Lesson 1: Painting Quietly: Sumi-e

Objectives:
- Demonstrate an understanding of effective use of line
- Demonstrate an understanding of the role of nature in Japanese art
- Demonstrate an understanding of writing haiku poems

Lesson 2: Paper: More Than Just for Writing

Objectives:
- Demonstrate an understanding of how paper is used in Japan

Lesson 3: The Dance of the Dragon (two-day lesson)

Objectives:
- Demonstrate an understanding of art forms from China
- Demonstrate an understanding of paper construction techniques

Lesson 4: Indonesian Batik Design

Objectives:
- Demonstrate an understanding of radial balance
- Demonstrate an understanding of the diversity of Indonesian visual art

Lesson 5: Hands from India

Objectives:
- Demonstrate an understanding of the art forms of India
- Demonstrate an understanding of mehndi design

Lesson 6: Stories in Miniature

Objectives:
- Demonstrate an understanding of miniature painting from India

Lesson 7: Unit 4 Review and Unit Test

Objectives:
- Review the terms and concepts presented in Unit 4
ART 5
Art 5

In this course, the student will be introduced to works of art through time. Throughout history the growth and development of civilizations around the world have been recorded and defined through the works of artists. The student will become familiar with the art elements, the principles of design, and how these elements and principles were applied to create visual art in different time periods and cultures.

Unit 1: The Ancient World

This unit will acquaint your student with some of the artwork from pre-history and ancient civilizations while exploring the elements of art. Your student will apply the elements of line, shape, color, texture, form, value, and space to his own artworks as he analyzes these elements in the works of ancient artists.

Objectives:
- Demonstrate an understanding of the elements of art and apply them to original artworks
- Demonstrate an understanding of artworks from pre-history and ancient civilizations

Lesson 1: The Lines of Ancient Animals

Objectives:
- Demonstrate an understanding of the art element of line
- Identify and apply the art element of line as a means of expression
- Create an image from imagination and memory that communicates a story

Lesson 2: Arts, Rocks, and Shapes

Objectives:
- Demonstrate an understanding of shape as an element of art
- Distinguish between organic and geometric shapes
- Distinguish between pictographs and petroglyphs
- Apply the element of shape in a stencil painting

Lesson 3: Textures in Ancient Mexico

Objectives:
- Distinguish between tactile and visual texture
- Apply the element of texture to a personal artwork
- Demonstrate an understanding of Mayan subject matter

Lesson 4: Ancient Greece: Vases and Stories

Objectives:
- Demonstrate an understanding of the functions of ancient Greek vases
- Distinguish between two types of forms
- Create a design inspired by ancient Greek vases
- Communicate a personal story through a drawing

Lesson 5: All Roads Lead to Rome

Objectives:
- Demonstrate an understanding of background, middleground, and foreground
- Distinguish between styles of Roman wall painting
- Apply perspective techniques to a personal artwork

Lesson 6: Bits and Pieces: Islamic Mosaics (two-day lesson)

Objectives:
- Demonstrate an understanding of mosaic construction
- Differentiate between primary and secondary colors

Lesson 7: Unit 1 Review and Test

Objectives:
- Review the terms and concepts presented in Unit 1
Unit 2: The Middle Ages to the Renaissance

Your student traveled through ancient cultures in Unit 1, and she will now explore the artworks and cultures of the Middle Ages through the Renaissance in Unit 2. As she explores this art, she will come to understand the principles of art and how they were and are applied to artworks. Your student will have the opportunity to create her own artworks by applying the elements, principles, and techniques of visual art.

Objectives:
- Create original artworks by applying art elements, principles, and techniques
- Demonstrate an understanding of the principles of art and how they were used in art history
- Explore and interpret artworks from the Middle Ages through the Renaissance

Lesson 1: Colored Light: Radial Balance in a Rose Window

Objectives:
- Distinguish among the three types of balance
- Demonstrate an understanding of the functions of stained glass windows in the Middle Ages
- Apply radial balance to create an original design

Lesson 2: Your Large Initial: Illuminated Manuscripts

Objectives:
- Demonstrate an understanding of the purposes of illuminated manuscripts
- Demonstrate an understanding of emphasis

Lesson 3: Art in Medieval Japan: Painted Patterns

Objectives:
- Apply a pattern to an original artwork
- Demonstrate an understanding of pattern in Medieval Japanese paintings

Lesson 4: Paint Like Michelangelo

Objectives:
- Describe and apply the art principle of harmony
- Identify the artwork of Michelangelo Buonarroti
- Demonstrate an understanding of the Renaissance

Lesson 5: Movement and Rhythm: A Renaissance Cityscape

Objectives:
- Demonstrate an understanding of movement and rhythm
- Apply the art principles of movement and rhythm to an original artwork

Lesson 6: Art Meets Math: Where Lines Come Together (two-day lesson)

Objectives:
- Demonstrate an understanding of one-point perspective

Lesson 7: A True Renaissance Man: Leonardo da Vinci

Objectives:
- Demonstrate an understanding of the life and work of Leonardo da Vinci

Lesson 8: Unit 2 Review and Test

Objectives:
- Review the terms and concepts presented in Unit 2

Unit 3: Baroque/Rococo

This unit will present Baroque and Rococo styles of European art and architecture. Students will have an opportunity to observe images of various world-renowned structures to gain an understanding of the design elements of Baroque and Rococo structures. Students will also have an opportunity to explore the elements of Rococo style in visual artwork and music. In
addition, students will demonstrate an understanding of Baroque and Rococo artists use of color by making a collage that uses color to create a mood.

Objectives:
- Identify elements of Baroque and Rococo Architecture
- Identify elements of the Rococo style in visual artwork and music
- Explore the work of Chardin
- Explore Warm and Cool Color Schemes

Lesson 1: In The Royal Style: Versailles

Objectives:
- Identify elements of baroque and rococo architecture
- Understand motivations for architectural decisions
- Design a home based on your own architectural decisions

Lesson 2: Rococo Art

Objectives:
- Identify elements of the rococo style in visual artwork
- Create a drawing or painting influenced by the rococo style

Lesson 3: Games Children Play

Objectives:
- Investigate genre painting and the work of Chardin
- Create a painting or photograph influenced by Chardin’s style that shows games you like to play

Lesson 4: Quiet Time

Objectives:
- Investigate warm and cool color schemes
- Create a collage that uses color to create a mood

Lesson 5: Baroque and Rococo Unit Review and Test

Objectives:
- Review the terms and concepts presented in Unit 3

Unit 4: Romanticism and the Modern Age

The Romantic movement produced art that has emotional and spiritual themes. Much of the art created in the period that followed the Romantic era, the Modern age, is experimental. In this unit your student will learn about the art and artists of both of these periods. She will examine Romantic landscape paintings and have the opportunity to create her own landscape painting. She will study the works of John Constable, Vincent Van Gogh, and Pablo Picasso. In addition, she will learn more about the role of an artist in society.

Objectives:
- Demonstrate an understanding of the various art forms and techniques of Asia
- Demonstrate an understanding of how the elements of art are used in expressive ways
- Demonstrate an appreciation for Asia’s diverse cultures and people

Lesson 1: Constable’s Romantic Landscape

Objectives:
- Identify elements of landscape painting
- Understand the use of perspective, light, and contrast in Constable’s work
- Create your own landscape based on your experience of the weather

Lesson 2: Your Impressionism: Monet, Cassatt, Van Gogh (two-day lesson)

Objectives:
- Identify key discoveries during the Impressionist period
- Understand the use of light, color, and mood in Impressionist painting
- Create your own moody landscapes
Lesson 3: Color Your World Differently: Matisse

Objectives:
- Identify key discoveries during the Fauvist period
- Describe the use of color and mood in Matisse’s work
- Create your own “wild-beast” collage

Lesson 4: Taking a Walk around Cubism: Picasso (two-day lesson)

Objectives:
- Identify key processes used by the Cubists
- Describe the use of line, shape, value, and form
- Create a multimedia piece inspired by Cubist processes

Lesson 5: Icons and Illusions: Pop and Op (two-day lesson)

Objectives:
- Identify key elements of pop and op art
- Use contemporary images and color theory to create a poster with an icon and personal message

Lesson 6: Aesthetics: How You Look at Art

Objectives:
- Define aesthetics
- Apply personal aesthetic judgments to the artwork reviewed in previous lessons

Lesson 7: What Does an Artist Do?

Objectives:
- Consider the roles artists have played in society over time
- Investigate a career in the arts

Lesson 8: It’s Your Call: Art Criticism

Objectives:
- Learn the steps involved in making educated judgments about artwork
- Curate a show, and write a review based on your own work

Lesson 9: Romanticism and the Modern Age Review and Test

Objectives:
- Review the terms and objectives from Unit 4: Romanticism and the Modern Age
- Take a short exam to test comprehension
Art 6 A

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester A, students explore the wide range and variety of visual arts. They learn the basic elements of art and principles of design and apply them in their own creative ways. The semester culminates in a study of factors involved in evaluating and critiquing art.

Unit 1: Course Overview

In this unit, you will receive a basic overview of the key components of Middle School Art and reference information that can be used at any time during the semester. You will learn how to navigate special interactive features and how to be successful in this course.

Lesson 1: Getting Started in Middle School Art

Unit 2: What Is Art?

In this unit, you will explore the definition of art. You will gain an understanding of the different purposes for art in the everyday world, as well as why people create art. The benefits of art in academics and employment will also be explored through the investigation of how art relates to other subjects and various careers.

Objectives:
- Reflect on the scope and diversity of the visual arts
- Investigate the role of art as a means for better understanding people and the world
- Establish a framework for evaluating works of art

Lesson 1: Defining Art

Objectives:
- Define and summarize key concepts of art
- Describe the basic purposes of art creation
- Analyze the purpose and success of art

Lesson 2: Tell Your Story

Objectives:
- Summarize how art is used to tell stories and record culture and history
- Recognize personal stories that are part one's heritage
- Analyze art work to determine the purpose and historical information being shared

Lesson 3: Art and Entertainment (two-day lesson)

Objectives:
- Recognize and understand the purpose of art in terms of entertainment
- Use creativity to develop original characters and images
- Justify the choices made in the creation of art

Lesson 4: Express Yourself

Objectives:
- Recognize the importance of personal expression
- Demonstrate the ability to use art as a means of expression
- Evaluate the artwork of others to understand the emotions or opinions being expressed in the art

Lesson 5: Art and Aesthetics

Objectives:
- Demonstrate an understanding of the meaning of aesthetics
- Design a collection of art that is aesthetically pleasing
- Evaluate the qualities of individual pieces of art

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Lesson 6: Design and Production

Objectives:
- Identify the purpose of design in terms of utilitarian products used each day
- Carry out activities that enhance abilities to be creative
- Assess how ability to be creative can enhance skills used to design products
- Review the objectives of the unit as a whole

Unit 3: The Elements of Art

In this unit, you will explore the elements of art. These are the founding principles that assist in understanding how art is made. You will understand what guides artists as they work. Also, you will gain an understanding of how to interpret finished pieces of art and how to determine the success of a particular art piece.

Objectives:
- Experiment with the elements of art
- Make original artwork through investigation and planning
- Use the elements of art to evaluate the quality of artwork
- Use experiences with art to interpret and critique artwork
- Explain proper care and maintenance of art equipment and materials

Lesson 1: Interpreting Lines

Objectives:
- Describe various types of lines
- Analyze how those lines are used in art
- Create art that focuses on line usage

Lesson 2: The Shapes that Form the World

Objectives:
- Identify different types of shapes
- Interpret how shapes are used to create objects in images
- Evaluate images for the use of shapes

Lesson 3: What You See and What You Feel

Objectives:
- Interpret what texture is in art
- Analyze how texture is created and used in art

Lesson 4: The Colors Around Us (two-day lesson)

Objectives:
- Identify color families
- Learn how to mix colors
- Analyze how colors affect art
- Create art based on color theories

Lesson 5: The Value in Art

Objectives:
- Define value and contrast
- Demonstrate understanding of value to create highlights and shadows

Lesson 6: The Space In Between

Objectives:
- Recognize positive and negative space
- Demonstrate understanding of space in terms of drawing objects
- Evaluate images for use of space

Lesson 7: It's All About Perspective (two-day lesson)

Objectives:
- Define perspective and rules for drawing in perspective
Lesson 8: Elements in Review

Objectives:
- Review all terms and concepts presented in the unit
- Analyze meaning of terms as they apply to art
- Use the elements of art to evaluate the quality of artwork
- Use experiences with art to interpret and critique artwork

Unit 4: Principles of Design

In this unit you will explore the principles of art. Combined with the elements of art, these are the founding concepts that assist in understanding how art is made and why it is successful. You will understand what guides artists as they work. Also, you will gain an understanding of how to interpret finished pieces of art and how to determine the success of a particular art piece.

Objectives:
- Experiment with the principles of design to communicate ideas in original artwork
- Evaluate and recommend changes to artwork based on the goals of the design
- Analyze the effectiveness of the principles of design to convey ideas
- Use personal experiences with design and artwork to interpret and create contemporary artwork
- Explain the importance of experimentation and initiative when developing original artwork

Lesson 1: Variety in Art

Objectives:
- Describe what variety means in art
- Construct art based on the concept of variety
- Justify choices made during artistic creations

Lesson 2: Is There Movement in a Still Image?

Objectives:
- Comprehend the premise of rhythm and movement in art
- Analyze how rhythm and movement were used in various pieces of art

Lesson 3: The Patterns You See

Objectives:
- Define patterns in art
- Produce a design that utilizes pattern
- Critique the success of the design

Lesson 4: What We Emphasize (two-day lesson)

Objectives:
- Define emphasis as it applies to art
- Observe usage of emphasis in art
- Analyze the effectiveness of emphasis in creating an obvious focal point

Lesson 5: Proportion

Objectives:
- Define proportion
- Apply the theory of proportion in art production

Lesson 6: Harmony Created

Objectives:
- Identify harmony as it applies to art
- Distinguish various ways that harmony is created when making art

Lesson 7: Balancing Act (two-day lesson)

Objectives:
- Define various types of balance
Lesson 8: Principles in Review

Objectives:
- Review all terms and processes learned during the unit

Unit 5: Responding to Art

In this unit, you will create works of art based upon preset criteria. You will understand how to evaluate and present your artwork for others to see and understand. Through these practices, you will gain an understanding of why art is evaluated differently depending on situations and needs.

Objectives:
- apply appropriate criteria to analyze, select, and respond to art
- critique choices artists, designers, and curators make when creating or presenting artwork
- identify reasons why criteria used to evaluate artwork would vary
- reflect on the procedures and products of art and design
- analyze the traits of artwork that communicates effectively

Lesson 1: Responding to Criteria

Objectives:
- Identify criteria for evaluating different types of art
- Communicate meaning through art
- Apply the evaluation criteria to a piece of art
- Justify decisions made in artwork

Lesson 2: The Portrait (two-day lesson)

Objectives:
- Describe the characteristics of portraiture
- Create art based on those characteristics
- Evaluate artwork based on the characteristics of quality portraits

Lesson 3: The Art of Impressionism

Objectives:
- Describe the characteristics of Impressionism
- Create art based upon the characteristics of Impressionism

Lesson 4: What's in a Name?

Objectives:
- List basic rules of one-point perspective
- Create an illustration in one-point perspective
- Evaluate art based on preset criteria of perspective

Lesson 5: Being an Art Critic

Objectives:
- Apply appropriate criteria to analyze, select, and respond to art
- Critique choices artists, designers, and curators make when creating or presenting artwork
- Identify reasons why criteria used to evaluate artwork would vary
- Reflect on the procedures and products of art and design
- Analyze the traits of artwork that communicate effectively
Art 6 B

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester B, students consider the preservation and protection of art. They then explore how international, national, and local art influences ideas, actions, cultures, and environments. Using this information, students build their own ideas of the role art plays in their lives.

Unit 1: Course Overview

In this unit, you will receive a basic overview of the key components of Middle School Art and reference information that can be used at any time during the semester. You will learn how to navigate special interactive features and how to be successful in this course.

Lesson 1: Getting Started in Middle School Art

Unit 2: Protecting and Respecting Art

In this unit, you will gain an appreciation for the need to preserve art. You will explore techniques used to protect art and learn about decisions that must be made when building and maintaining an art collection. Various careers related to art conservation will be studied.

Objectives:
- Analyze different methods for preserving and presenting artwork
- Apply processes used to decide what artwork gets preserved and presented
- Identify the professionals involved in preservation and presentation of artworks
- Choose where to store, present, and preserve artwork
- Explain the responsibilities artists face when creating works of art and design

Lesson 1: Why Do We Need to Preserve Artwork?

Objectives:
- Identify causes of damage to artwork
- Analyze artworks and classify appropriate conservation techniques based on media
- Understand why preserving art is culturally important

Lesson 2: Careers in Preservation and Conservation

Objectives:
- Identify careers available in preservation and conservation
- Identify skill sets needed for art preservation and conservation careers

Lesson 3: Is It Worth It?

Objectives:
- Explore several criteria used in assessing the value of art
- Use criteria to analyze art to assess whether it should be preserved

Lesson 4: On View Now And Forever?

Objectives:
- Select the most appropriate location to safely store and display artwork

Lesson 5: Is it Archival? An Art Lab (two-day lesson)

Objectives:
- Perform a series of experiments on preservation materials and situations
- Report experiment findings

Lesson 6: Preservation Panorama

Objectives:
- Analyze different methods for preserving and presenting art work
Unit 3: The World of Art

During this unit you will interpret art from past and present perspectives, searching for clues about purpose, meaning, and culture. You will practice responding to art based on your understanding of a specific time period and culture; create art symbolic of a certain period/culture; and critique art from varying perspectives. You will then submit one work of your choice.

Objectives:
- Analyze how works of art influence your world view
- Understand factors that influence creativity
- Evaluate how art helps you understand people living in different cultures
- Evaluate how understanding people living in different cultures helps you respond to art
- Critique works of art using cultural contexts

Lesson 1: Art in Context

Objectives:
- Recognize that works of art that appear similar can have different meanings and uses depending on the cultural context in which they were created
- Interpret art based on cultural context

Lesson 2: Meaning and Culture

Objectives:
- Given cultural background, interpret artwork to determine its uses, functions, and significance

Lesson 3: The Story Behind the Artifact (two-day lesson)

Objectives:
- Differentiate between an insider’s perspective and an outsider’s perspective on the cultural significance of an object

Lesson 4: Here and There; Then and Now (two-day lesson)

Objectives:
- Compare the original cultural value of artwork with its new value in a different culture
- Compare the original purpose and value of historical artwork with its purpose and value today
- Interpret art based on its cultural context
- Compare similar styles of artwork in different cultures and time periods

Lesson 5: Art Metamorphosis (two-day lesson)

Objectives:
- Explore reasons for the evolution of artistic style
- Investigate how artists from various cultures and time periods inspire each other
- Create art that is inspired by a particular era or artistic style

Lesson 6: Complex Contexts

Objectives:
- Analyze how works of art influence your world view
- Understand factors that influence creativity
- Evaluate how art helps us understand people living in different cultures, areas of the world, and/or periods of time
Unit 4: Art In Your Community

During this unit you will examine a variety of community art and analyze works that reveal information about community identity. Evaluating the purposes of community art will allow you to discover its role in strengthening and uniting a community. You will design a community mural with a meaningful purpose and message over the course of two lessons.

Objectives:
- Examine art in your community in the broadest sense possible (museums, public places, diversity of media, and form)
- Critique works of art in your community for what they reveal about the community identity
- Evaluate how artistic collaboration can strengthen and unite a community
- Create community art

Lesson 1: Imagining a Community

Objectives:
- Analyze why artists create community art and the purposes of community art
- Identify how artists represent their communities using community art

Lesson 2: Community Celebration

Objectives:
- Analyze and evaluate art that celebrates community events

Lesson 3: Depicting our Neighbors (two-day lesson)

Objectives:
- Investigate artists’ values by analyzing who they choose to depict and how the work is displayed
- Identify good placements for community murals and recognize why
- Create a plan for a community mural that depicts members of the community

Lesson 4: Pictures: Giving Community Meaning

Objectives:
- Identify, analyze, and respond to cultural norms as expressed through community art and murals
- Act as art historians to interpret images and connect them to cultures

Lesson 5: Perspectives in Community Art (two-day lesson)

Objectives:
- Master vocabulary and basic skills of perspective drawing, to create space
- Evaluate community art for its use of linear and atmospheric perspective
- Incorporate perspective in the completion of a community art mural plan

Lesson 6: Community Art: A View Through the Wide-Angle Lens

Objectives:
- Respond to and evaluate community art according to criteria such as positive depiction of community, use of perspective, purpose of artwork, event celebrated, and culture norms depicted

Unit 5: Art in Your Life

In this unit, you will investigate the role of art in your everyday life, connect art-related careers to the products you use daily, and examine the practices of analyzing and critiquing art. You will have the opportunity to develop and use your own aesthetic preferences to
build a digital art collection. You will reflect on your own growth as an artist and build your personal art portfolio of artworks and artifacts.

Objectives:
- Recognize the ways in which art influences a person's life
- Identify how life experiences and mentors serve as sources of inspiration for artists
- Investigate the career possibilities in the field of visual arts
- Reflect on the changes in personal perception and understanding of art acquired throughout the course

Lesson 1: Surrounded by Art

Objectives:
- Differentiate between art objects and functional objects
- Categorize objects as functional, art, or both using aesthetic judgment

Lesson 2: Careers in Art (two-day lesson)

Objectives:
- Review careers in art and analyze what skills would be necessary to excel at the career

Lesson 3: The Collector

Objectives:
- Create a collection based on stated aesthetic preferences and other organizing principles
- Interpret other collectors’ works for evidence of aesthetic preferences and historical interests

Lesson 4: The Critic

Objectives:
- Identify the role of the art critic in guiding tastes in the art market
- Recognize and practice the role of art criticism in the creative revision process

Lesson 5: Art of Memory (two-day lesson)

Objectives:
- Identify and analyze artworks that represent a significant memory, experience, or event in the life of the artists

Lesson 6: The Power of Influence (two-day lesson)

Objectives:
- Analyze how artists have been influenced by other individuals, styles, or events
- Assemble a portfolio of artworks that inspire the artistic process and explain the connection to personal artwork
ART 7A
Art 7 A

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester A, students explore the wide range and variety of visual arts. They learn the basic elements of art and principles of design and apply them in their own creative ways. The semester culminates in a study of factors involved in evaluating and critiquing art.

Unit 1: Course Overview

In this unit, you will receive a basic overview of the key components of Middle School Art and reference information that can be used at any time during the semester. You will learn how to navigate special interactive features and how to be successful in this course.

Lesson 1: Getting Started in Middle School Art

Unit 2: What Is Art?

In this unit, you will explore why people create art. You will review the purposes of different types of art as well as how that artwork plays a role in the world. You will gain a better understanding of how art is used as a communication tool for individuals and societies. In addition, you will gain a better understanding of how to evaluate artwork.

Objectives:
- Reflect on the scope and diversity of visual arts
- Investigate the role of art as a means to better understand people and the world
- Establish a framework for evaluating artwork

Lesson 1: Why Is Art Created?

Objectives:
- Understand the purpose of creating art
- Apply skills and knowledge to create works of art for a purpose
- Analyze the choices made in all artistic decisions

Lesson 2: Utilitarian or Aesthetic

Objectives:
- Identify art made for utilitarian purposes and art that is made for aesthetic purposes
- Produce a design that is either utilitarian or aesthetic
- Compare designs to others of a similar nature

Lesson 3: Communication Is the Key

Objectives:
- Recognize what message various pieces of art communicate
- Compare different art pieces to determine purpose and message
- Evaluate the artist's success in conveying the intended message

Lesson 4: The Importance of Creativity (two-day lesson)

Objectives:
- Define creativity and why it is important
- Apply skills to demonstrate creative ability
- Evaluate the success of artistic creations

Lesson 5: Reviewing Purpose

Objectives:
- Reflect on the scope and diversity of visual arts
- Investigate the role of art as a means to better understand people and the world
- Establish a framework for evaluating works of art
Unit 3: The Essentials of Visual Arts

In this unit, you will explore the elements and principles of art. These concepts provide the basic foundation for creating art by providing the artist with tools and techniques for creating. You will understand how to utilize the elements and principles to develop a dynamic piece of art. You will also be able to properly critique your work, and the work of others, to determine its effectiveness and success.

Objectives:
- Experiment with the elements of art
- Make original artwork through investigation and planning
- Use the elements of art to evaluate the quality of artwork
- Use experiences with art to interpret and critique artwork
- Explain proper care and maintenance of art equipment and materials.

Lesson 1: Reviewing the Elements

Objectives:
- Describe and apply the elements of art

Lesson 2: The Principles of Design

Objectives:
- Describe each of the principles of design
- Comprehend how those principles are used in art

Lesson 3: Versatile Lines

Objectives:
- Identify basic lines
- Demonstrate how those lines can be used to create each of the principles of design

Lesson 4: Morphing Shapes (two-day lesson)

Objectives:
- Identify basic shapes
- Demonstrate how shapes can be used to create the principles of art

Lesson 5: Pop Art (two-day lesson)

Objectives:
- Recognize how color can be used as a tool for emphasis
- Discuss the movement of pop art
- Create pop art pieces that utilize color as emphasis
- Justify choices made in the process of creating

Lesson 6: The Value of Proportion (two-day lesson)

Objectives:
- Summarize the basic concepts of facial proportions
- Discuss the importance of contrast and value when creating art
- Demonstrate understanding of facial proportions
- Demonstrate the usage of contrast in value

Lesson 7: Emphasizing Perspective (two-day lesson)

Objectives:
- Review the basic concepts of perspective, emphasis, and unity
- Construct a drawing that employ the concepts of perspective, emphasis, and unity
- Evaluate the success of the drawing

Lesson 8: Elements and Principles in Review

Objectives:
- Experiment with the elements of art
- Make original artwork through investigation and planning
- Use the elements of art to evaluate the quality of artwork
Unit 4: The Application of Art

In this unit you will gain an understanding of how art is applied to many areas of life. You will evaluate how the concepts, elements, and principles related to art and design apply to areas such as English, math, social studies, and science. You will have the opportunity to evaluate how art is used as a tool to enhance those subjects.

Objectives:
- Experiment with the principles of design to communicate ideas in original artwork
- Analyze the effectiveness of the principles of design to convey ideas
- Use personal experiences with design and artwork to interpret and create work that is cross-curricular
- Explain the importance of experimentation and initiative when developing original artwork

Lesson 1: The Math Connection – Tessellations (two-day lesson)

Objectives:
- Describe how art is connected to math through the use of patterns and tessellations
- Identify and create tessellation patterns

Lesson 2: Art and Language Arts – The Storyteller (two-day lesson)

Objectives:
- Identify the connection between visual and verbal storytelling
- Carry out the process of storytelling through creating a story map
- Create art based on a story map

Lesson 3: Art and Science – From Earth to Canvas (two-day lesson)

Objectives:
- Identify materials used in creating art
- Discuss how materials are created from natural resources

Lesson 4: Social Studies and Art – Decoding the Past (two-day lesson)

Objectives:
- Describe how historical information is often recorded visually rather than verbally
- Recognize what visual clues are present in modern society
- Analyze the story that is interpreted based on the visual clues created by the artist

Lesson 5: The Application of Art Review Quiz

Objectives:
- Experiment with the principles of design to communicate ideas in original artwork
- Analyze the effectiveness of the principles of design to convey ideas
- Use personal experiences with design and artwork to interpret and create work that is cross-curricular
- Explain the importance of experimentation and initiative when developing original artwork

Unit 5: Responding to Art

In this unit, you will create works of art based upon defined criteria. You will understand how to evaluate and present your artwork based on a theme that others will see and understand. Through these practices, you will gain an understanding of why art is evaluated differently depending on situations and needs.

Objectives:
- Apply appropriate criteria to analyze, select, and respond to art
- Critique choices artists, designers, and curators make when creating or presenting artwork

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Lesson 1: Responding to Criteria

Objectives:
- Identify different genres of art
- Understand different criteria for evaluating artwork
- Create specific criteria to evaluate a genre of art
- Analyze artwork based on criteria

Lesson 2: Evaluating a Genre

Objectives:
- Understand concepts that define a genre or a group of artwork
- Develop ideas for evaluating a group of artwork based upon a particular genre
- Evaluate artwork based upon the criteria established for the genre

Lesson 3: Extending the Collection (two-day lesson)

Objectives:
- Interpret a theme for a group of artwork
- Create artwork based on a genre
- Justify decisions

Lesson 4: Presenting Your Message

Objectives:
- Select art to represent a message
- Create a collection based upon a message
- Justify decisions made

Lesson 5: Responding to Art Review

Objectives:
- Apply appropriate criteria to analyze, select, and respond to art
- Critique choices artists, designers, and curators make when creating or presenting artwork
- Identify reasons why criteria used to evaluate artwork would vary
- Analyze the traits of artwork that communicates effectively
ART 7B
Art 7 B

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester B, students consider the preservation and protection of art. They then explore how international, national, and local art influences ideas, actions, cultures, and environments. Using this information, students build their own ideas of the role art plays in their lives.

Unit 1: Course Overview

In this unit, you will receive a basic overview of the key components of Middle School Art and reference information that can be used at any time during the semester. You will learn how to navigate special interactive features and how to be successful in this course.

Lesson 1: Getting Started in Middle School Art

Unit 2: Protecting and Respecting Art

In this unit, you will gain an appreciation for the changing nature of art. As you examine World Heritage Sites, you will understand the challenges of large-scale preservation, recognize responsibilities of artists, and practice characters of an active observer.

Objectives:
• Explore factors involved in the preservation of sites, such as World Heritage Sites
• Analyze artwork for evidence of differing styles and methods
• Explain the choices and responsibilities of artists when creating works of art and design.
• Understand the responsibilities and privileges of the art viewer

Lesson 1: The Evolution of Style (two-day lesson)

Objectives:
• Analyze historical artwork from a cultural perspective
• Examine art trends and styles across time and culture
• Understand reasons for stylistic change

Lesson 2: Pick Your Medium

Objectives:
• Explain how and why artists choose a medium

Lesson 3: Heritage Sites: Place Preservation (two-day lesson)

Objectives:
• Explore World Heritage Sites and identify why they are important to preserve

Lesson 4: With Great Art Comes Great Responsibility

Objectives:
• Analyze the responsibilities artists have when they create and exhibit artwork
• Understand the factors artists consider before they hang a piece for exhibition

Lesson 5: Passive Observer Responsible Viewer?

Objectives:
• Analyze the responsibilities of the viewer when looking at and responding to a work of art

Lesson 6: A Path to Preservation and Respect

Objectives:
Unit 3: The World of Art

In this unit, you will gain an understanding of and appreciation for the symbolism used in art across various cultures. You will explore and analyze artistic methods for representing religious figures, and examine ways that art has influenced culture or national identity.

Objectives:
• Analyze ways that beliefs, philosophy, and cultural values have influenced the development of various art forms
• Examine ways that cultures use art and its principles to portray significant individuals or religious figures
• Understand ways that math and art intersect
• Analyze ways that art has influenced a culture or nation

Lesson 1: Harmonious Principles: The World of Chinese Art (two-day lesson)

Objectives:
• Understand how philosophy and culture influenced the development of various art forms
• Create artwork that illustrates aspects of philosophy and culture

Lesson 2: Mathematics Meets Art: The Golden Ratio

Objectives:
• Analyze the use of the golden ratio in art and architecture
• Understand ways that the golden ratio has been a guiding principle in the art of multiple cultures

Lesson 3: The Beast: Animal Representations in Art

Objectives:
• Evaluate ways that animals are used in art to represent people or ideas
• Compare animal art from different cultures

Lesson 4: The Ideal: Representations of Soldiers and Saints

Objectives:
• Identify the use of artistic composition techniques to elevate the status of strategic individuals in history
• Analyze gesture and grouping of figures to interpret the relationships between them

Lesson 5: The Creation of American Culture Through Art (two-day lesson)

Objectives:
• Analyze symbolic development of national identity through artwork in the early days of the American republic

Unit 4: Art in Your Community

Explore community art ranging from ordinary money to architecture and monumental structures. Learn how both everyday and extraordinary community art are used to express a message and unify viewers around a common purpose. Discover the process and skills necessary to create currency or design a monument. Analyze the importance of memorializing hardships such as war through art, and question the reasons why beauty and
creativity are necessary to human survival. Exercise creative choice by creating two projects and then choosing between the two for submission as your portfolio assignment.

Objectives:
- Examine the ways that currency, architecture, and memorials send messages that unify and inspire communities
- Learn the processes and skills behind designing currency, monuments, and structures
- Analyze art and creativity’s role in effectively memorializing hardships
- Create ordinary and large-scale community art designs

Lesson 1: The Art of Money (two-day lesson)

Objectives:
- Examine the images that compose currency from various countries and interpret what they say about national identity
- Understand the technology and artistic methods used to manufacture currency

Lesson 2: Monumental Sculptures: We Remember (two-day lesson)

Objectives:
- Observe and analyze war memorials from various time periods and compare and contrast styles and purposes
- Explore the purpose behind the creation of war memorials

Lesson 3: Monumental Design (two-day lesson)

Objectives:
- Analyze the process of monument design with an in-depth model
- Analyze and discuss why symbolism and placement of artworks is important

Lesson 4: Building Community: Architecture (two-day lesson)

Objectives:
- Describe processes and techniques practiced by architects
- Analyze ways architects send a message through structural elements
- Create an architectural drawing

Lesson 5: Community Art: Mundane to Magnificent

Objectives:
- Analyze the purposes of a range of art
- Understand methods used in the creation of a wide range of community art
- Explore reasons creativity and beauty are important to human existence

Unit 5: Art in Your Life

You will investigate art that is present in your everyday landscape. Explore your home to learn ways that interior design can shape mood and space. Analyze the history of printmaking to understand its impact on creativity and the world as a whole. Discover techniques for composing photographs and consider the revolution of photographic technology and its impact on how images are shared. Look around you to find examples of advertising and discuss best practices of professionals in the field. Close your study with the creation of a mixed media piece that combines printmaking and photography to communicate a personal theme.

Objectives:
- Recognize the ways that artists such as graphic designers create visual images to convince or manipulate
- Identify ways that technology has impacted art and humanity in the fields of printmaking and photography
- Explore spaces to understand how interior design can impact mood and well being
- Practice the skills of printmaking, photography, advertising, and mixed media art

Lesson 1: Interior Landscapes: Designing a Room

Objectives:
Lesson 2: Reproductions: The Art and History of Printing (two-day lesson)

Objectives:
- Compare and contrast printing technology and techniques from various times in history
- Reflect on ways that printing has impacted the spread of ideas in images and text

Lesson 3: Photography: Instant Art? (two-day lesson)

Objectives:
- Analyze photographs across time and cultures for the ways they portray subjects and send a message through composition and techniques
- Understand how photography has altered the way we create and share images

Lesson 4: Convincing Images: The Art of Advertising

Objectives:
- Analyze the role of art in creating effective advertisements
- Learn about careers in the field of professional advertising
- Discuss the choices advertising professionals make when crafting an advertisement with a specific message

Lesson 5: Caring for the Environment: Recycled Art

Objectives:
- Analyze the ways that artists use recycled media to communicate a message

Lesson 6: Intersecting Art Forms (two-day lesson)

Objectives:
- Analyze the ways that artists use mixed media to communicate a message
- Create a mixed media piece that conveys a particular theme
ART 8A
Art 8 A

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester A, students explore the wide range and variety of visual arts. They learn the basic elements of art and principles of design and apply them in their own creative ways. The semester culminates in a study of factors involved in evaluating and critiquing art.

Unit 1: Course Overview

In this unit, you will receive a basic overview of the key components of Middle School Art and reference information that can be used at any time during the semester. You will learn how to navigate special interactive features and how to be successful in this course.

Lesson 1: Getting Started in Middle School Art

Unit 2: What Is Art?

In this unit, you will gain an understanding of what art is. You will investigate the concepts of inspiration, creativity, innovation, and communication. Through an understanding of those concepts, you will identify what you consider art to be and what type of message you would like to communicate as an artist.

Objectives:
- Reflect on the scope and diversity of the visual arts
- Investigate the role of art as a means for better understanding people and the world
- Establish a framework for evaluating works of art

Lesson 1: The Role of Inspiration

Objectives:
- Define inspiration
- Explore the role that inspiration plays in the creation of art
- Evaluate personal inspiration factors
- Create art based on personal inspiration

Lesson 2: What Is Art to You? (two-day lesson)

Objectives:
- Describe the various roles art has played through history
- Interpret the purpose/role of various art pieces
- Create art based on the role of preserving heritage

Lesson 3: Creativity and Innovation

Objectives:
- Define creativity and innovation
- Investigate the role of creativity and innovation in the creation of art
- Create art based on the concepts of creativity and innovation

Lesson 4: What Type of Artist Do You Want to Be?

Objectives:
- Explore the role played by art in the communication of ideas
- Analyze the types of messages that prompt a personal response
- Develop an art piece that effectively communicates a message you want to convey to others

Lesson 5: Art in Review

Objectives:
- Reflect on the scope and diversity of the visual arts
- Investigate the role of art as a means for better understanding people and the world
- Establish a framework for evaluating works of art
Unit 3: The Essentials of Visual Arts

In this unit, you will explore how elements and principles of art are used interchangeably to create dynamic imagery. You will work to develop a stronger sense of understanding through the creation of artwork and the analysis of the process and success of the various creations.

Objectives:
- Experiment with the elements and principles of art
- Make original artwork through investigation and planning
- Use the elements of art to evaluate the quality of artwork
- Use experiences with art to interpret and critique artwork
- Explain proper care and maintenance of art equipment and materials

Lesson 1: Review of the Elements and Principles of Art (two-day lesson)

Objectives:
- Define the elements and principles of art
- Create tools that will help with understanding of the elements and principles

Lesson 2: Billboard Designs (two-day lesson)

Objectives:
- Discuss the use of color to create emphasis and balance
- Create a design that utilizes the element of color to create emphasis and balance

Lesson 3: A New Perspective (two-day lesson)

Objectives:
- Identify the steps and concepts of drawing in two-point perspective
- Describe the importance of value when drawing in perspective
- Create an image in two-point perspective that is harmonious
- Assess the success of the image created

Lesson 4: Drawing the Human Body (two-day lesson)

Objectives:
- Define the correct proportions of drawing the human body
- Understand how basic shapes can be used to draw the different parts of the human body
- Create a drawing of the human body that utilizes value and texture correctly

Lesson 5: Painting Contrast (two-day lesson)

Objectives:
- Define the concepts of color, value, and movement
- Create art based on the elements and principles of color, value, and movement
- Assess the success and purpose of the art piece created.

Lesson 6: Reviewing the Essentials

Objectives:
- Experiment with the elements and principles of art
- Make original artwork through investigation and planning
- Use the elements of art to evaluate the quality of artwork
- Use experiences with art to interpret and critique artwork
- Explain proper care and maintenance of art equipment and materials

Unit 4: Art Connections

In this unit, you will gain understanding of how art is applied to many areas of life. You will evaluate how the concepts presented with the elements and principles will apply to areas such as language arts, math, social studies, and science, along with careers that stem from those fields. You will be offered the opportunity to evaluate how art is used as a tool to enhance those subjects and how careers are connected to and spawned from the concepts.

Objectives:
Lesson 1: The Math Connection (two-day lesson)

Objectives:
- Understand the connection between math and the visual arts
- Explore a correlation of math and art as a career field

Lesson 2: Art and Language Arts (two-day lesson)

Objectives:
- Describe the connection between language arts and the visual arts
- Examine an example of the connection between the two arts

Lesson 3: Social Studies and Art (two-day lesson)

Objectives:
- Relate the visual arts to the study of social studies
- Investigate the connection by analyzing current events that impact students

Lesson 4: Art and Science (two-day lesson)

Objectives:
- Explain how the visual arts and sciences are connected through the field of conversation
- Create a product that exemplifies the connection between visual arts and sciences

Lesson 5: Art Connections Review

Objectives:
- Experiment with the principles of design to communicate ideas in original artwork
- Evaluate the relation between art and core subject areas
- Evaluate the impact of art on careers that relate to other subject areas
- Analyze the effectiveness of the principles of design to convey ideas through art
- Use personal experiences with design and artwork to interpret and create contemporary artwork
- Explain the importance of experimentation and initiative when developing original artwork and designs

Unit 5: Responding to Art

In this unit, you will create works of art based upon preset criteria such as theme. You will use this work to better understand how to evaluate and present your artwork and response to critiques. Through these practices, you will gain an understanding of why art is evaluated differently depending on situations and needs.

Objectives:
- Analyze the traits of artwork that communicate effectively
- Apply appropriate criteria to analyze, select, and respond to art
- Critique choices made by artists, designers, and curators when creating or presenting artwork
- Identify reasons why criteria used to evaluate artwork vary

Lesson 1: The Role of Inspiration (two-day lesson)

Objectives:
- Develop criteria that identifies different styles of art
- Develop evaluation criteria for artwork as it applies to a particular style
Lesson 2: Creating a Portfolio

Objectives:
- List the characteristics of your artwork
- Justify decisions made in creating a portfolio of work

Lesson 3: Creativity and Innovation (two-day lesson)

Objectives:
- Interpret artwork based upon your criteria
- Create artwork based upon your criteria
- Justify decisions regarding artistic choices

Lesson 4: Presenting a Collection

Objectives:
- Select a piece of art to represent your skill and style
- Create art based your criteria
- Justify decisions regarding artistic choices

Lesson 5: Responding to Art Review

Objectives:
- Analyze the traits of artwork that communicate effectively
- Apply appropriate criteria to analyze, select, and respond to art
- Critique choices made by artists, designers, and curators when creating or presenting artwork
- Identify reasons why criteria used to evaluate artwork vary
ART 8B
Art 8 B

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester B, students consider the preservation and protection of art. They then explore how international, national, and local art influences ideas, actions, cultures, and environments. Using this information, students build their own ideas of the role art plays in their lives.

Unit 1: Course Overview

In this unit, you will receive a basic overview of the key components of Middle School Art and reference information that can be used at any time during the semester. You will learn how to navigate special interactive features and how to be successful in this course.

Lesson 1: Getting Started in Middle School Art

Unit 2: Protecting and Respecting Art

In this unit, you will gain an understanding of and appreciation for the potential benefits and drawbacks of art preservation. Complex science and technology for preservation will be explored. You will analyze cultural messages of artists and understand how art is picked for preservation and display. You will choose between an opinion piece and non-traditional artwork for submission as your portfolio evaluation.

Objectives:
- Analyze art and artifacts that document culture and history
- Explore advanced science behind art preservation
- Explore challenges in preservation of non-traditional art forms
- Understand the factors that determine which art is preserved and exhibited
- Analyze the benefits and drawbacks of art conservation

Lesson 1: External Memory: Art Reveals Culture

Objectives:
- Analyze art and artifacts that document the everyday life of a culture
- Identify and evaluate the cultural messages that artists send through their artwork

Lesson 2: External Memory: Art Reveals Opinions

Objectives:
- Analyze art and artifacts that document the major issues of a time and place
- Identify and evaluate the ways that artists communicate cultural opinions through their artwork

Lesson 3: Advanced Art Preservation (two-day lesson)

Objectives:
- Understand advanced science technology and techniques behind art preservation

Lesson 4: Nontraditional Art Preservation (two-day lesson)

Objectives:
- Analyze preservation methods for nontraditional and contemporary forms of art
- Evaluate examples of nontraditional art including installation and environmental art

Lesson 5: Who Determines the Display?

Objectives:
Lesson 6: The Conservation Conundrum

Objectives:
- Analyze the benefits and drawbacks of art preservation and restoration

Unit 3: The World of Art

During this unit, you will analyze art’s purpose and message during conflict. Discover varied empires, contrasting their styles of architecture and engineering to look for clues about culture and cultural exchange. As you examine technology from the Industrial Revolution to the present, you will analyze its impact on art and art’s reaction to technology. Compare the art of filmmaking to other art forms, and understand the unique ways that movies have reflected and shaped culture.

Objectives:
- Analyze styles and philosophy in architecture and engineering
- Evaluate the impact of technology on the creative process, art, and the spread of art
- Understand the role of art and the way art changes during times of conflict
- Critique works of art using cultural, geographical, and/or historical contexts

Lesson 1: The Art of War

Objectives:
- Interpret the role of art and artists during times of war
- Analyze ways that artists use visual composition to create scenes of conflict

Lesson 2: Engineering Empires (two-day lesson)

Objectives:
- Compare architecture and engineering developments across cultures
- Use inference to learn information about culture and government based on architectural records

Lesson 3: Democratic Architecture

Objectives:
- Analyze the visual and structural similarities between Greek architecture and buildings and sculptures in America
- Identify visual messages communicated by the elements of Greek architecture

Lesson 4: Mass Art: Technology and the Industrial Revolution

Objectives:
- Analyze the impact of technology and the Industrial Revolution on past and present art
- Understand ways that technology has influenced the spread of art and artistic ideas

Lesson 5: Designing a World: Engineering Movies

Objectives:
- Compare the work of a set designer or special effects artist to an architect or city planner
- Identify factors movie artists must consider to create a believable world
- Understand careers of key movie professionals
- Understand ways that culture is revealed in movies

Lesson 6: Machu Picchu to Movies

Objectives:
- Connect artworks with the underlying philosophies they represent
- Compare and contrast architectures across cultures
- Compare and contrast engineering and technological developments across cultures and time
Unit 4: Art in Your Community

During this unit, you will explore art careers in the community, ranging from public space design to art therapy. You will examine ways that artists in communities send messages about culture and value through various artistic media and investigate ways that artists have contributed to their community through creative invention. After analyzing your own personal skills and interests, you will select and practice a career that could impact the arts in your community.

Objectives:
- Examine communities for the messages of culture and value that are sent through landscape art, public spaces, fashion, and inventions
- Understand ways that art can be used to teach and heal humanity
- Analyze your skills and interests in order to pick a career that will affect the arts in your community
- Research, explore, and practice your chosen career and the necessary skills to perform this job

Lesson 1: Revealing Landscapes: Metropolis and Nature (two-day lesson)

Objectives:
- Examine human-made and natural landscapes for clues about our relationship with the natural world
- Identify ways that artists from around the world represent culture and worldviews through landscapes or cityscapes
- Analyze ways that artists use various media and techniques to depict objects in the space of a landscape or cityscape

Lesson 2: The Art of Public Spaces (two-day lesson)

Objectives:
- Explore the purpose, meaning, and uses of public spaces
- Analyze the design and symbolism of public spaces for clues about values and culture

Lesson 3: Wearable Art

Objectives:
- Analyze fashions across time for clues about values and culture
- Outline the tasks of professional fashion artists and the ways they use principles of art and design to create clothing

Lesson 4: The Artist as Inventor

Objectives:
- Compare traits that artists and inventors have in common
- Analyze and explore ways that artists have used their creativity to produce meaningful inventions

Lesson 5: Art to Teach, Art to Heal

Objectives:
- Compare the skills and job responsibilities of art educators and art therapists
- Analyze the unique ways that art educators and art therapists use art to teach and heal in a community

Lesson 6: Multiple Paths to Creativity (two-day lesson)

Objectives:
- Analyze and review different types of outlets for artistic creativity
- Create a portfolio that demonstrates exploration and skill in your preferred method of artistic creativity

Unit 5: Art In Your Life

In this unit, you will examine the artistic and cultural role of textiles, furniture design, and illustration. You will also explore factors that motivate artists to create specific works of art.
Additionally, you will learn about the important place young artists hold in the history of art, and examine the methods, materials, and subjects of these creators. In this unit you will also work on a personal portfolio that describes your preferred artistic methods, materials, inspirations, and subject matter.

Objectives:
- Examine communities for messages of culture and value sent through textiles, furniture design, and illustration
- Analyze the complex nature of artistic inspiration and understand sources of motivation such as life experiences and internal beliefs
- Explore the methods, materials, and subjects of young artists
- Create a personal portfolio that describes your preferred artistic methods, materials, inspirations, and subject matter

Lesson 1: Textile Art: The Fabric of Your Life (two-day lesson)

Objectives:
- Examine the techniques and materials that are used in the creation of textiles
- Analyze textiles to see how artists from various locations use elements of art such as pattern, repetition, form, and balance to send messages about culture and value

Lesson 2: Take a Seat On a Work of Art (two-day lesson)

Objectives:
- Examine furniture from different cultures and time periods for its purpose, design, and materials
- Analyze ways that artists have used balance, repetition, rhythm, color, and form to create unity in furniture design

Lesson 3: The Art of Illustration (two-day lesson)

Objectives:
- Identify the ways that illustration is used to visualize a story or message
- Explore and analyze messages sent through various types of illustration such as books and illuminated manuscripts

Lesson 4: Finding Inspiration: Artistic Motivation

Objectives:
- Identify and analyze motivating factors, inspirations, methods, and materials for young artists
- Create a portfolio of your inspirations, motivations, and preferred methods and materials

Lesson 5: Art of Your Generation (two-day lesson)

Objectives:
- Identify and analyze motivating factors, inspirations, methods, and materials for young artists
- Create a portfolio of your inspirations, motivations, and preferred methods and materials
APPENDIX A
CURRICULUM

A.2 COURSE GUIDES

f. HEALTH AND PHYSICAL EDUCATION
This document is part of Appendix A: Curriculum.

It includes course guides for each Health and Physical Education class for students in Kindergarten through Grade 8.

- Physical Education K
- Physical Education 1
- Physical Education 2
- Physical Education 3
- Physical Education 4
- Physical Education 5
- Health & Physical Education 6
- Health & Physical Education 7
- Health & Physical Education 8

Course guides provide detailed information on the curriculum including course descriptions, unit summaries, lesson objectives, activities, and assessment types. Course guides include information on:

- Planned instruction (provided in the unit summary of each unit within individual Course Guides)
- Course objectives (provided in the unit and lesson objectives within individual Course Guides)
- Activities (provided in the unit summary and lesson objectives of each unit within individual Course Guides)
PHYSICAL EDUCATION K
Physical Education K

In this course, physical education encourages students to develop their fine motor skills, movement, and confidence to enjoy healthy physical activity regularly. A combination of interactive and hands-on activities teaches students essential skills. Students learn how to respect themselves and others while playing.

Unit 1: Physically Active Lifestyle

In this unit, your student will learn to explain the benefits of physical activity and ways to be physically active. Your student will also learn the importance of participating in physical activity outside of school and be able to distinguish and identify physical activities that are enjoyable and those that are not. By the end of the unit, your student will understand the importance of having a physically active lifestyle.

Objectives:
- Investigate the benefits of physical activity
- Engage regularly in moderate physical activities outside PE class
- Explain and participate in physical activities that are enjoyable

Lesson 1: Physical Activities

Objectives:
- Select and demonstrate activities that are classified as physical activity or exercise

Lesson 2: Benefits of Physical Activity

Objectives:
- Recognize that exercise benefits the body and the brain

Lesson 3: Not Being Active

Objectives:
- Identify disadvantages of not being physically active

Lesson 4: Being Active Outside of School

Objectives:
- Engage in at least one physical activity outside of school
- Create a book of physical activities

Lesson 5: Feelings and Physical Activity

Objectives:
- Identify the emotional benefits to your brain from participating in physical activities

Lesson 6: Enjoyable Physical Activities

Objectives:
- Identify one physical activity that is enjoyable and state why it is fun

Unit 2: Introduction to Common Movements

This unit will introduce your student to movement patterns such as throwing, kicking, and catching that are commonly used during physical activities. Your student will also be able to identify directional patterns such as under, over, behind, next to, through, right, left, up, down, forward, backward, and in front of. These patterns are also used in sports and physical activities. Your student will understand the roles and importance of stretching and balancing. At the end of the unit, she will understand how fundamental movement patterns help accomplish physical activities.

Objectives:
- Develop the fundamental movement patterns of throwing, catching, and kicking
- Identify directional patterns used in physical activity
- Distinguish between the different ways you can play with a ball
- Stretch properly and explain the importance of stretching
• Demonstrate balance while bearing weight on various body parts and experiment with moving to a steady beat.

**Lesson 1: Moving Forward, Sideways, and Backward**

Objectives:
- Show how your body can move forward, backward and sideways
- Explain why it is important to understand direction

**Lesson 2: Playing Ball**

Objectives:
- Demonstrate kicking, throwing, catching, and striking a ball
- Describe how different actions used with balls produce various results

**Lesson 3: Stretching**

Objectives:
- Show how your body can stretch, bend, swing, twist
- Explain why it is important to stretch before exercising

**Lesson 4: Determining Direction**

Objectives:
- Distinguish between directional relationships with an object and your body

**Lesson 5: Balancing and Body Parts**

Objectives:
- Demonstrate balancing while bearing weight on both feet, one foot, and on hands and knees

**Lesson 6: Moving to a Rhythm**

Objectives:
- Experiment with clapping, tapping, and moving to a steady beat

**Unit 3: Let’s Move**

This unit will introduce your student to how movements are utilized in various physical activities. Your student will also be introduced to the different parts of the body that are used in physical activities. Your student will be able to distinguish between slow and fast movements and understand the difference between personal and general space. Your student will be able to demonstrate head flexion, extension, and rotation. At the end of the unit, your student will understand how to apply different types of movements to physical activities.

Objectives:
- Differentiate between fundamental movement patterns
- Diagram the different parts of the body that are used in physical activity
- Distinguish between a slow and fast movement when traveling
- Demonstrate movement forms of various body parts
- Determine between general and personal space

**Lesson 1: Bending, Pushing, Pulling, and Squatting**

Objectives:
- Identify and perform squatting, bending, pulling, and pushing
- Describe the difference between squatting, bending, pulling, and pushing

**Lesson 2: Let’s Travel**

Objectives:
- Differentiate between hopping, skipping, jumping, and running
- Perform a hop, skip, jump, and run

**Lesson 3: What Body Parts Can You Name?**

Objectives:
• Label the different parts of the body used in physical activity
• Identify various body parts

Lesson 4: My Space, Our Space

Objectives:
• Determine the difference between personal and general space
• Perform movements using both personal and general space

Lesson 5: Are You Fast or Slow?

Objectives:
• Identify fast and slow movements
• Explain how fast and slow movements look and feel different
• Demonstrate the difference between slow and fast movements while traveling

Lesson 6: Twist and Bend your Body

Objectives:
• Demonstrate head flexion, head extension, and head rotation

Unit 4: Effects of Exercise

In this unit, your student will be able to describe changes that take place in the body during exercise. She will also be able to explain the role of the lungs during exercise. Your student will be able to understand why sleep is important to overall health and why daily physical activity is important. By the end of the unit, your student will be able to describe ways to stay fit and why staying fit is important.

Objectives:
• Discover changes that take place in the body during exercise
• Examine the role of the lungs during exercise and discover what muscles are and their role in fitness
• Discover the importance of a daily physical activity
• Tell why sleep is necessary for the body to function properly
• Recognize appropriate exercises to increase flexibility

Lesson 1: Do You Notice a Change?

Objectives:
• Explain that fast heart rate, sweat, and heavy breathing accompany exercise
• Discuss why your heart rate increases, breathing deepens, and sweating occurs during exercise

Lesson 2: Building Muscle Strength

Objectives:
• Describe muscles
• Demonstrate the ability to lift and support body weight

Lesson 3: The Lungs

Objectives:
• Identify where the lungs are located
• Describe what lungs help you do

Lesson 4: Importance of Sleep

Objectives:
• Explain the importance of rest and sleep for the body

Lesson 5: Flexibility

Objectives:
• Participate in exercises that increase flexibility in the shoulders, legs, and trunk
• Describe and select a stretching activity that provides enjoyment
Lesson 6: Daily Physical Activity

Objectives:
• Identify the benefits that occur when involved in daily physical activity
• Develop and track a physical activity goal

Unit 5: Responsibility, Respect, and Enjoyment

In this unit, your student will be able to understand how to dress for physical activity and why it is important to follow rules. Your student will also learn the basics of water safety, as well as how to use sporting equipment properly. Your student will also learn how to respond to physical activity emergencies during this unit. Your student will be able to describe the positive feelings produced by engaging in physical activity. Your student will understand why it is important to try new physical activities. At the end of the unit, your student will be able to understand how he should interact with others during physical activity and explain the benefits of having personal responsibility and respect for others, as well as understand that physical activity provides enjoyment while interacting with others.

Objectives:
• Explain why it is important to know and follow rules in physical activity
• Explain and summarize how to use equipment and sportswear to play safely and prevent injuries
• Explain appropriate water safety rules and how to react during emergencies
• Explain that physical activity provides the opportunity for positive social interaction
• Describe positive feelings produced while engaging in physical activity and explain why it is important to try new activities

Lesson 1: Importance of Following Rules

Objectives:
• State why it is important to follow rules when participating in physical activity
• Illustrate the importance of following rules and consequences of not following rules

Lesson 2: Dressing for Physical Activity

Objectives:
• Identify appropriate clothing to wear when exercising
• Explain how proper clothing and shoes help prevent injury

Lesson 3: Staying Safe in the Water

Objectives:
• Explain basic water safety rules

Lesson 4: Using Equipment

Objectives:
• Discuss the proper use of sporting equipment

Lesson 5: Emergencies

Objectives:
• Discuss appropriate reactions during emergencies in physical activities

Lesson 6: Working Together

Objectives:
• Explain the benefits of working together in physical activity

Lesson 7: Positive Feelings During Physical Activity

Objectives:
• Identify specific positive feelings associated with participating in physical activity

Lesson 8: Try a New Sport or Activity

Objectives:
• Summarize why it is important to try a new sport or activity
• Explain how physical activity provides the opportunity for social interaction
PHYSICAL EDUCATION 1
Physical Education 1
Course Summary

Welcome to Physical Education 1! Each week, the student will learn a new game or activity. There will be games and activities that may be played inside, while others will be better suited for outdoor play. The games and activities in this course are grouped in thematic units. In each lesson, the student will find a brief description of that week’s game. Each week a new game will be added, but the previous lessons’ games will still be listed for the student to see. In addition to the activities described in the lessons, students will also have the option of participating in yoga or an individual or team sport.

Units
1. Get Up and Move
2. Making Healthy Choices
3. Make Your Own Fun
4. Games from Around the World
5. Show Your Strength

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Unit 1: Get Up and Move
Physical Education 1

Unit Summary
In this unit your student will be introduced to the three different Physical Education programs that he will be able to participate in this school year. These programs include Connections Academy Fitness, Personal Fitness, and Yoga.

Your student will have the opportunity to learn how to play various games, continue playing an individual or team sport that he is involved in, or begin practicing yoga. Regardless of the program your student chooses to participate in, he will have the opportunity to be physically active on a daily basis.

Objectives
• Demonstrate the motor skills needed for throwing and catching
• Demonstrate flexibility and balance through movement
• Demonstrate locomotor patterns of jumping

Lessons
1. Introduction to Physical Education 1
2. Ping-Pong Pass
3. Limbo Lights
4. Push-ups
5. Side Straddle Hop
6. Musical Hoops
7. Plyometrics
8. Marsupial Mania

Lesson 1: Introduction to Physical Education 1
Physical Education 1 Unit 1: Get Up and Move

Objective: Learn about the three different options that Connections Academy students have to fulfill their Physical Education requirement

Lesson 2: Ping-Pong Pass
Physical Education 1 Unit 1: Get Up and Move

Objectives: Demonstrate motor skills needed for throwing and catching; Refine hand-eye coordination through process of throwing and catching

Lesson 3: Limbo Lights
Physical Education 1 Unit 1: Get Up and Move

Objectives: Play a limbo game without using a limbo stick; Demonstrate flexibility and balance through movement
Lesson 4: Push-ups
Physical Education 1 Unit 1: Get Up and Move

Objectives: Demonstrate how to do a basic push-up; Demonstrate how to do different variations of push-ups; Identify the different parts of the body that the different push-up variations target

Lesson 5: Side Straddle Hop
Physical Education 1 Unit 1: Get Up and Move

Objective: Demonstrate how to do a side straddle hop or jumping jack

Lesson 6: Musical Hoops
Physical Education 1 Unit 1: Get Up and Move

Objectives: Demonstrate how to correctly use a hula hoop; Use a hula hoop as part of exercises to strengthen the oblique muscles

Lesson 7: Plyometrics
Physical Education 1 Unit 1: Get Up and Move

Objectives: Define plyometrics; Participate in plyometric exercises

Lesson 8: Marsupial Mania
Physical Education 1 Unit 1: Get Up and Move

Objectives: Demonstrate locomotor patterns of jumping; Practice jumping distances
Unit 2: Making Healthy Choices
Physical Education 1

Unit Summary
The unit explains to your student the importance of making healthy choices and the effects that those choices have on her overall health.

Your student will examine the food pyramid and proper nutrition guidelines, so that she will learn how to make appropriate food choices for a regular, healthy lifestyle. Also, the topics of exercise and personal hygiene will be discussed.

Objectives
- Examine the food pyramid and identify the five food groups and which foods belong to which group
- Identify healthy food choices
- Explain benefits of exercise and its importance to overall healthy living
- Discuss the importance of proper personal hygiene and its effect on overall health

Lessons
1. Nutrition: USDA’s MyPlate
2. Nutrition: Choosing Healthy Food
3. Exercise
4. Personal Hygiene

Lesson 1: Nutrition: USDA’s MyPlate
Physical Education 1 Unit 2: Making Healthy Choices

Objectives: Identify the five food groups that make up USDA’s MyPlate; Name specific foods and what food group they belong to

Lesson 2: Nutrition: Choosing Healthy Food
Physical Education 1 Unit 2: Making Healthy Choices

Objectives: Identify foods from the different food groups; Create a menu for a healthy, balanced dinner

Lesson 3: Exercise
Physical Education 1 Unit 2: Making Healthy Choices

Objectives: Define exercise; Explain the benefits of exercise on the heart and lungs; Measure the effects of exercise on the pulse rate
Lesson 4: Personal Hygiene
Physical Education 1 Unit 2: Making Healthy Choices

Objectives: Define personal hygiene and explain why it is important to overall health; Describe the proper hand washing technique

Unit 3: Make Your Own Fun
Physical Education 1

Unit Summary
Your student will have the opportunity to let his creative side shine in this unit. He will not only participate in some fun and exciting activities, he will make the items that are used in each of the games. Once your student has built a kite, a plisbee, and a catcher's cup, it is time to put them to the test and see how much fun he was able to make!

Heads-Up
Students who attend Connections Academy in Florida are required to participate in a program for 150 minutes per week. Students who attend Connections Academy in California are required to participate in 200 minutes of Physical Education every 10 school days, or 100 minutes per week. Students in all other states are required to participate in a program for at least 90 minutes per week.

Objective
- Demonstrate motor and manipulative skills necessary to construct and use various toys

Lessons
1. Make Your Own Kite
2. Make Your Own Plisbee
3. Make Your Own Catcher's Cup

Lesson 1: Make Your Own Kite
Physical Education 1 Unit 3: Make Your Own Fun

Objectives: Construct and fly two kites out of household materials; Demonstrate motor skills needed to fly a kite

Lesson 2: Make Your Own Plisbee
Physical Education 1 Unit 3: Make Your Own Fun

Objectives: Demonstrate manipulative skills used to throw and catch; Improve hand-eye coordination through throwing and catching accurately
**Lesson 3: Make Your Own Catcher's Cup**

Physical Education 1 Unit 3: Make Your Own Fun

**Objective:** Demonstrate accurate hand-eye coordination and spatial relationships to be able to catch a ball on a string

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**Unit 4: Games from Around the World**

Physical Education 1

**Unit Summary**

In this unit your student will learn about games that children from different cultures, and different parts of the world play. Your student’s journey will take her to Spain, Japan, China, Indonesia, and Australia. She will also learn a game played by Native American children. Your student will uncover that even though the children in these countries are very far away geographically, the styles of games that they play are very close to what your student plays at home.

**Objective**

- Learn how to play games that are played in various countries

**Lessons**

1. Brinca (Spain)
2. Chunky (Native American)
3. Japanese Horseshoes (Japan)
4. Lame Hen (China)
5. Lompat Tali (Indonesia)
6. Down, Down, Down (Australia)

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**Lesson 1: Brinca (Spain)**

Physical Education 1 Unit 4: Games from Around the World

**Objective:** Demonstrate balance and coordination through a series of hops, steps, and jumps

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**Lesson 2: Chunky (Native American)**

Physical Education 1 Unit 4: Games from Around the World

**Objectives:** Demonstrate motor skills needed for throwing; Utilize hand-eye coordination and depth perception to participate in an activity from Native American culture

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**Lesson 3: Japanese Horseshoes (Japan)**

Physical Education 1 Unit 4: Games from Around the World

**Objectives:** Demonstrate accurate throwing techniques to knock over a target; Improve throwing accuracy through practice
Lesson 4: Lame Hen (China)
Physical Education 1 Unit 4: Games from Around the World

Objectives: Demonstrate motor skills needed to hop on one foot; Balance on one leg long enough to pick up items from the ground.

Lesson 5: Lompat Tali (Indonesia)
Physical Education 1 Unit 4: Games from Around the World

Objectives: Demonstrate locomotor skills necessary to jump rope; Participate in fundamental movements such as jumping and hopping.

Lesson 6: Down, Down, Down (Australia)
Physical Education 1 Unit 4: Games from Around the World

Objectives: Demonstrate proficiency in throwing and catching a ball; Utilize depth perception to be able to catch a ball.

Unit 5: Show Your Strength
Physical Education 1

Unit Summary
Throughout this unit your student will demonstrate the motor skills necessary to play various types of games. Some of these games will test his physical strength, while others will test his balance and precision during movement.

Your student will be challenged, both physically and mentally, as participates in challenges that will show his strength!

Objectives
- Demonstrate locomotor skills necessary for jumping and running
- Utilize accurate hand-eye coordination to accurately throw and catch an object
- Demonstrate appropriate balance techniques

Lessons
1. Bowling for Bottles
2. Give Yourself a Hand
3. Soaring Slippers
4. Ping Pong Pockets
5. Sponge Toss
Lesson 1: Bowling for Bottles
Physical Education 1 Unit 5: Show Your Strength

Objective: Demonstrate hand-eye coordination necessary to knock over a target with a ball

Lesson 2: Give Yourself a Hand
Physical Education 1 Unit 5: Show Your Strength

Objectives: Improve balance and coordination; Use motor skills necessary to jump from one space to another

Lesson 3: Soaring Slippers
Physical Education 1 Unit 5: Show Your Strength

Objectives: Demonstrate motor skills needed to throw accurately at a target; Utilize hand-eye coordination necessary for throwing

Lesson 4: Ping Pong Pockets
Physical Education 1 Unit 5: Show Your Strength

Objective: Demonstrate throwing accuracy by hitting a specific target

Lesson 5: Sponge Toss
Physical Education 1 Unit 5: Show Your Strength

Objectives: Demonstrate ability to throw and catch; Be able to throw objects into a specific container
PHYSICAL EDUCATION 2
Physical Education 2
Course Summary

Welcome to Physical Education 2! Each week, the student will learn a new game or activity. There will be games and activities that may be played inside, while others will be better suited for outdoor play. The games and activities in this course are grouped in thematic units. In each lesson, the student will find a brief description of that week’s game. Each week a new game will be added, but the previous lessons’ games will still be listed for the student to see. In addition to the activities described in the lessons, students will also have the option of participating in yoga or an individual or team sport.

Units
1. Get Up and Move
2. Making Healthy Choices
3. Games You Can Make!
4. Games from Around the World
5. How Strong Are You?

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Unit 1: Get Up and Move
Physical Education 2

Unit Summary
In this unit, your student will be introduced to the three different Physical Education programs that he will be able to participate in this school year. These programs include Connections Academy Fitness, Personal Fitness, and Yoga.

Your student will have the opportunity to learn how to play various games, continue playing an individual or team sport that he is involved in, or begin practicing yoga. Regardless of the program your student chooses to participate in, he will have the opportunity to be physically active on a daily basis.

Objectives
• Demonstrate the motor skills needed for throwing and catching
• Demonstrate flexibility and balance through movement
• Demonstrate locomotor patterns of jumping

Lessons
1. Introduction to Physical Education 2
2. Space Awareness: Balance
3. Tightrope Walker
4. Body Toss
5. Side Straddle Hop
6. Scarf Juggling
7. Jumping Jacks to the Music
8. Where Are You Going?

Lesson 1: Introduction to Physical Education 2
Objective: Learn about the three different options that Connections Academy students have to fulfill their Physical Education requirement

Lesson 2: Space Awareness: Balance
Objective: Demonstrate an understanding of stationary balance and moving balance

Lesson 3: Tightrope Walker
Objective: Demonstrate how to maintain balance while walking a tightrope
<table>
<thead>
<tr>
<th>Lesson 4: Body Toss</th>
<th>Physical Education 2 Unit 1: Get Up and Move</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives:</strong></td>
<td>Demonstrate how to properly throw underhand; Demonstrate how to aim for and successfully hit a target with an underhand throw</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 5: Side Straddle Hop</th>
<th>Physical Education 2 Unit 1: Get Up and Move</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Demonstrate how to do a side straddle hop or jumping jack</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 6: Scarf Juggling</th>
<th>Physical Education 2 Unit 1: Get Up and Move</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Demonstrate juggling using three scarves</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 7: Jumping Jacks to the Music</th>
<th>Physical Education 2 Unit 1: Get Up and Move</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Demonstrate stamina and endurance by performing jumping jacks to music</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 8: Where Are You Going?</th>
<th>Physical Education 2 Unit 1: Get Up and Move</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Demonstrate flexibility and gross motor control by moving the body in various directions</td>
</tr>
</tbody>
</table>
Unit 2: Making Healthy Choices
Physical Education 2

Unit Summary
The unit explains to your student the importance of making healthy choices and the effects that those choices have on her overall health.

Your student will examine USDA’s MyPlate (formerly the food pyramid) and proper nutrition guidelines, so that she will learn how to make appropriate food choices for a regular, healthy lifestyle. Also, the topics of exercise and personal hygiene will be discussed.

Objectives
- Examine USDA’s MyPlate and identify the five food groups and which foods belong to which group
- Identify healthy food choices
- Explain benefits of exercise and its importance to overall healthy living
- Discuss the importance of proper personal hygiene and its effect on overall health

Lessons
1. Nutrition: MyPlate
2. Nutrition: Choosing Healthy Food
3. Exercise
4. Personal Hygiene

Lesson 1: Nutrition: MyPlate
Physical Education 2 Unit 2: Making Healthy Choices

Objectives: Identify the five food groups that make up MyPlate; Name specific foods and what food group they belong to

Lesson 2: Nutrition: Choosing Healthy Food
Physical Education 2 Unit 2: Making Healthy Choices

Objectives: Identify foods from the different food groups; Create a menu for a healthy, balanced dinner

Lesson 3: Exercise
Physical Education 2 Unit 2: Making Healthy Choices

Objectives: Define exercise; Explain the benefits of exercise on the heart and lungs; Measure the effects of exercise on the pulse rate

Materials: Course Materials are not available as of this time as this User has not been assigned to any Courses. Please check back once the User has been placed into a Course.
Lesson 4: Personal Hygiene
Physical Education 2 Unit 2: Making Healthy Choices

Objectives: Define personal hygiene and explain why it is important to overall health; Describe the proper hand washing technique

Unit 3: Games You Can Make!
Physical Education 2

Unit Summary
Your student will have the opportunity to let his creative side shine in this unit. He will not only participate in some fun and exciting activities, but he will also make the items that are used in each of the games. Once your student has built cheerleader pompoms, a pair of stilts, and dancing ribbons, it is time to put them to the test and see how much fun he was able to make!

Objective
• Demonstrate motor and manipulative skills necessary to construct and use various toys

Lessons
1. Make Your Own Cheerleader Pompoms
2. Make Your Own Coffee Can Stilts
3. Make Your Own Swirling Dancing Ribbons
4. Ab Wheelie
5. Don’t Fall in the Lava
6. Beach Ball Lift

Lesson 1: Make Your Own Cheerleader Pompoms
Physical Education 2 Unit 3: Games You Can Make!

Objective: Demonstrate locomotor skills with basic cheerleading moves

Lesson 2: Make Your Own Coffee Can Stilts
Physical Education 2 Unit 3: Games You Can Make!

Objective: Demonstrate gross motor control and balance while walking on tin can stilts

Lesson 3: Make Your Own Swirling Dancing Ribbons
Physical Education 2 Unit 3: Games You Can Make!

Objective: Demonstrate motor control and body awareness with rhythmic gymnastics
Lesson 4: Ab Wheelie  
Physical Education 2 Unit 3: Games You Can Make!  
**Objective:** Demonstrate coordination and core strength

Lesson 5: Don't Fall in the Lava  
Physical Education 2 Unit 3: Games You Can Make!  
**Objective:** Demonstrate locomotor skills and coordination

Lesson 6: Beach Ball Lift  
Physical Education 2 Unit 3: Games You Can Make!  
**Objective:** Demonstrate strength in the legs and abdominal muscles

Unit 4: Games from Around the World  
Physical Education 2  
**Unit Summary**  
In this unit, your student will learn about games that children from different cultures and different parts of the world play. Your student’s journey will take her to Spain, Japan, China, Indonesia, and Australia. She will also learn a game played by Native American children. Your student will discover that even though the children in these countries are very far away geographically, the styles of games that they play are very close to what your student plays at home.  
**Objective**  
- Learn how to play games that are played in various countries  
**Lessons**  
1. Greece: The Snail Game  
2. Romania: Rings Game  
3. Germany: Hit the Pot and Sardines  
4. China: Hopping Chicken and Jump Over the Band  
5. Colombia: Oba  
6. Indonesia: Jumping Rope

Lesson 1: Greece: The Snail Game 🦀  
Physical Education 2 Unit 4: Games from Around the World  
**Objective:** Demonstrate balance and coordination through a series of hops, steps, and jumps
Lesson 2: Romania: Rings Game
Physical Education 2 Unit 4: Games from Around the World

Objective: Demonstrate hand-eye coordination

Lesson 3: Germany: Hit the Pot and Sardines
Physical Education 2 Unit 4: Games from Around the World

Objective: Demonstrate interpersonal cooperation and team spirit

Lesson 4: China: Hopping Chicken and Jump Over the Band
Physical Education 2 Unit 4: Games from Around the World

Objective: Demonstrate locomotor skills and coordination

Lesson 5: Colombia: Oba
Physical Education 2 Unit 4: Games from Around the World

Objective: Demonstrate hand-eye coordination

Lesson 6: Indonesia: Jumping Rope
Physical Education 2 Unit 4: Games from Around the World

Objective: Demonstrate coordination and physical perseverance
Unit 5: How Strong Are You?
Physical Education 2

Unit Summary
Throughout this unit, your student will demonstrate the motor skills necessary to play various types of games. Some of these games will test his physical strength, while others will test his balance and precision during movement.

Your student will be challenged, both physically and mentally, as he participates in challenges that will show his strength!

Objectives
• Demonstrate stamina and endurance through the performance of various exercises
• Demonstrate an understanding of heart healthy activities
• Demonstrate physical stamina by hopping, jumping, and running
• Demonstrate stamina, flexibility, and endurance by moving and dancing to music
• Demonstrate strength and endurance through strength training

Lessons
1. Deck of Cards
2. Jump Start Your Heart
3. Get Around This!
4. Get Up and Dance!
5. Let’s Build Your Muscles!

Lesson 1: Deck of Cards
Physical Education 2 Unit 5: How Strong Are You?

Objective: Demonstrate stamina and endurance through the performance of various exercises

Lesson 2: Jump Start Your Heart
Physical Education 2 Unit 5: How Strong Are You?

Objective: Demonstrate an understanding of heart healthy activities

Lesson 3: Get Around This!
Physical Education 2 Unit 5: How Strong Are You?

Objective: Demonstrate physical stamina by hopping, jumping, and running
Lesson 4: Get Up and Dance!
Physical Education 2 Unit 5: How Strong Are You?

Objective: Demonstrate stamina, flexibility, and endurance by moving and dancing to music

Lesson 5: Let’s Build Your Muscles!
Physical Education 2 Unit 5: How Strong Are You?

Objective: Demonstrate strength and endurance through strength training
PHYSICAL EDUCATION 3
Physical Education 3
Course Summary

Our third grade students are expected to understand and demonstrate clearly-defined combinations of movements. Each week the student will learn one or more new activities. In addition, the student will learn the importance of nutrition as it relates to health and physical fitness. The student will learn life skills throughout the curriculum. In each lesson, the student will find a brief description of that week’s activity. Each week a new activity will be added, but the previous activities can always be reviewed.

Units

1. The Presidential Fitness Challenge: Introduction
2. Moving, Stretching, and Strengthening
3. Developing a Healthy Exercise Routine
4. Your Body and Exercise
5. The Presidential Fitness Challenge
6. Games Around the World

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Unit 1: The Presidential Fitness Challenge: Introduction
Physical Education 3

Unit Summary
In this unit, your student will learn about the Presidential Fitness Challenge. The President's Challenge is a program created by the United States government that rewards students for being physically active and fit. Your student will learn about the activities he can participate in, the awards that he can win, and how to keep track of his progress. By the end of this unit, your student will have taken his first step toward earning the Presidential Physical Fitness Award or the Presidential Active Lifestyle Award or he will have qualified for one.

You may choose to participate in either the Active Lifestyle Award program or the Physical Fitness Award program.

Objectives
• Learn about the President’s Challenge physical fitness program
• Learn how to keep track of exercise progress

Lessons
1. About the President’s Challenge
2. Endurance Run/Walk & Shuttle Run
3. Pull-ups or Push-ups
4. V-Sit and Reach

Lesson 1: About the President’s Challenge
Physical Education 3 Unit 1: The Presidential Fitness Challenge: Introduction

Objective: Learn about the Presidential fitness programs

Lesson 2: Endurance Run/Walk & Shuttle Run
Physical Education 3 Unit 1: The Presidential Fitness Challenge: Introduction

Objectives: Learn the proper way to do the endurance run/walk; Learn the proper way to do the shuttle run

Lesson 3: Pull-ups or Push-ups
Physical Education 3 Unit 1: The Presidential Fitness Challenge: Introduction

Objectives: Learn the proper way to do pull-ups; Learn the proper way to do push-ups

Lesson 4: V-Sit and Reach
Physical Education 3 Unit 1: The Presidential Fitness Challenge: Introduction

Objective: Learn the proper way to do the V-sit and reach
Unit 2: Moving, Stretching, and Strengthening
Physical Education 3

Unit Summary
Throughout this unit the student will demonstrate motor skills and knowledge of rules in games. In addition, the student will review how to jump rope, stretch, throw, and catch. Each lesson includes individual and partner activities. These activities may be revised or replaced to meet the needs of the student.

Objectives
- Demonstrate motor skills
- Participate in individual and partner activities

Lessons
1. Jumping and Leaping
2. Move It!
3. Did You Catch That?
4. Which Way Am I Going?
5. I Am Strong and Sturdy
6. Upper Body Strength
7. Twist and Turn
8. Bending and Stretching
9. Jumping Beans
10. Jumping Beans II
11. Lower Body Strength

Lesson 1: Jumping and Leaping 🎉
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objectives: Jump as high as you can; Jump as far as you can; Leap as far as you can

Lesson 2: Move It! 🏃‍♂️
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objectives: Move quickly; Change direction quickly

Lesson 3: Did You Catch That? 🏛️
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objective: Catch a ball using two hands
Lesson 4: Which Way Am I Going?
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objectives: Perform jumps in various directions; Run in various directions

Lesson 5: I Am Strong and Sturdy
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objectives: Balance using four supports; Balance using three supports; Balance using two supports

Lesson 6: Upper Body Strength
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objective: Use upper body strength to perform various activities

Lesson 7: Twist and Turn
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objectives: Perform skills that cross the mid-line of the body; Twist the torso as far as possible

Lesson 8: Bending and Stretching
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objective: Demonstrate ankle, knee, and hip flexibility

Lesson 9: Jumping Beans
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objectives: Jump while keeping your balance; Jump rope several times consecutively

Lesson 10: Jumping Beans II
Physical Education 3 Unit 2: Moving, Stretching, and Strengthening

Objectives: Jump in a diagonal direction with control; Jump as quickly as possible in various directions
Objective: Demonstrate lower body strength

Unit 3: Developing a Healthy Exercise Routine
Physical Education 3

Unit Summary
In this unit your student will learn the four principles of exercise: regularity, overload, specificity, and progression. He will also learn about the four components of an effective exercise routine, which are warm-up, stretching, exercise, and cool-down, and will understand why each one is important. He will then begin the suggested daily exercise activities.

Objectives
• Learn the principles of exercise
• Learn the components of an exercise routine
• Learn how to properly warm-up and cool-down

Lessons
1. A Healthy Exercise Routine
2. Flexibility Training
3. Aerobic Training
4. Strength and Endurance Training

Lesson 1: A Healthy Exercise Routine
Physical Education 3 Unit 3: Developing a Healthy Exercise Routine

Objectives: Learn the principles of exercise; Learn the components of an exercise routine; Learn how to properly warm up and cool down

Lesson 2: Flexibility Training
Physical Education 3 Unit 3: Developing a Healthy Exercise Routine

Objectives: Learn about the importance of flexibility; Incorporate stretching into a daily exercise routine

Lesson 3: Aerobic Training
Physical Education 3 Unit 3: Developing a Healthy Exercise Routine

Objectives: Learn about the importance of aerobic activity; Incorporate aerobic activity into a daily exercise routine
Lesson 4: Strength and Endurance Training
Physical Education 3 Unit 3: Developing a Healthy Exercise Routine

Objectives: Learn the importance of muscular strength; Learn the importance of muscular endurance; Incorporate strength and endurance into a daily exercise routine

Unit 4: Your Body and Exercise
Physical Education 3

Unit Summary
In this unit your student will learn about how different factors affect her body during exercise. The unit explores body type and composition, proper diet and nutrition, the importance of fluids during exercise, how the human body maintains a healthy balance, and how exercise-related injuries can be prevented and cared for.

Objectives
• Learn what body type and body composition are
• Understand the value of eating a healthy diet
• Learn how fluids are important for your body
• Learn about care and prevention of exercise-related injuries

Lessons
1. Body Composition
2. Nutrition and Healthy Eating
3. The Importance of Fluids
4. Injuries

Lesson 1: Body Composition
Physical Education 3 Unit 4: Your Body and Exercise

Objectives: Learn how to calculate Body Mass Index; Learn about different body types

Lesson 2: Nutrition and Healthy Eating
Physical Education 3 Unit 4: Your Body and Exercise

Objectives: Learn about essential nutrients; Learn why eating a healthy diet is important

Lesson 3: The Importance of Fluids
Physical Education 3 Unit 4: Your Body and Exercise

Objectives: Learn why fluids are important during exercise; Learn about homeostasis
Lesson 4: Injuries
Physical Education 3 Unit 4: Your Body and Exercise

Objectives: Learn how to prevent exercise-related injuries; Learn how to care for exercise-related injuries

Unit 5: The Presidential Fitness Challenge
Physical Education 3

Unit Summary
In this unit, your student will participate in the Presidential Fitness Challenge. The President’s Challenge is a program created by the United States government that rewards students for being physically active and fit. Your student will take part in an endurance run/walk, a shuttle run, curl-ups, push-ups, and the v-sit and reach. His best performance in each of these events will be recorded and submitted to his teacher so that he receives the appropriate recognition and award for his achievement.

Objective
- Participate in the Presidential Fitness Challenge

Lessons
1. Endurance Run/Walk and Shuttle Run
2. Pull-ups or Push-ups and Curl-ups
3. V-Sit and Reach

Lesson 1: Endurance Run/Walk and Shuttle Run
Physical Education 3 Unit 5: The Presidential Fitness Challenge

Objectives: Complete the endurance run/walk; Complete the shuttle run

Lesson 2: Pull-ups or Push-ups and Curl-ups
Physical Education 3 Unit 5: The Presidential Fitness Challenge

Objectives: Complete as many pull-ups or push-ups as you can in one minute; Complete as many curl-ups as you can in one minute

Lesson 3: V-Sit and Reach
Physical Education 3 Unit 5: The Presidential Fitness Challenge

Objective: Perform the v-sit and reach exercise
Unit 6: Games Around the World
Physical Education 3

Unit Summary
In this unit your student will learn about games that children play. However, the games that your student will learn are probably not ones that she has played before. Your student is going to take a look at games that children play in different countries around the world. In the first lesson, she will learn games from countries in Asia. Next she will look at games that are played in countries in Europe. The third lesson will concentrate on countries of Africa. Finally, your student will learn some games from Australia.

Objective
• Learn how to play games that are played in other countries

Lessons
1. Asia
2. Europe
3. Africa
4. Australia

Lesson 1: Asia
Physical Education 3 Unit 6: Games Around the World
Objectives: Participate in games played by children in Asia; Demonstrate locomotor skills necessary for running and jumping

Lesson 2: Europe
Physical Education 3 Unit 6: Games Around the World
Objectives: Participate in games that are played by children in Europe; Demonstrate locomotor skills necessary for running and jumping

Lesson 3: Africa
Physical Education 3 Unit 6: Games Around the World
Objectives: Learn about games that are played Africa; Demonstrate locomotor skills necessary for running and jumping

Lesson 4: Australia
Physical Education 3 Unit 6: Games Around the World
Objectives: Learn about games that are played in Australia; Demonstrate locomotor skills necessary to run
PHYSICAL EDUCATION 4
Physical Education 4
Course Summary

At the fourth grade level, student's hand-eye coordination has improved, allowing for advanced instruction in individual and partner activities. Fourth grade students are able to understand rules and the importance of following them. The development of a healthy lifestyle requires that the student acquire knowledge to make positive decisions about exercise, and nutrition. The student's participation and progress will be monitored through the Activity Tracker and periodic performance tests.

The President's Council on Physical Fitness and Sports Tests will be part of his/her curriculum. Depending on the program chosen, the student will have the opportunity to record his results on a periodic basis, and receive the appropriate award depending on the performance level.

Units
1. The Presidential Fitness Challenge: Introduction
2. Learning Locomotor Skills
3. Developing A Healthy Exercise Routine
4. Your Body and Exercise
5. The Presidential Fitness Challenge
6. Games Around The World

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Unit 1: The Presidential Fitness Challenge: Introduction
Physical Education 4

Unit Summary

In this unit, your student will learn about The Presidential Fitness Challenge. The President's Challenge is a program created by the United States government that rewards students for being physically active and physically fit. Your student will learn about the events involved, the awards that he can win, and how to keep track of his progress. By the end of this unit, your student will have taken his first step toward earning the Presidential Physical Fitness Award or the Presidential Active Lifestyle Award.

Objectives

- Learn about the Presidential Fitness Challenge programs which include the Presidential Active Lifestyle program and the Presidential Physical Fitness program
- Learn how to keep track of exercise progress

Lessons

1. About the Presidential Fitness Challenge
2. Endurance Run/Walk & Shuttle Run
3. Pull-ups, Push-ups, and Curl-ups
4. V-Sit and Reach

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Lesson 1: About the Presidential Fitness Challenge
Physical Education 4 Unit 1: The Presidential Fitness Challenge: Introduction

Objective: Learn about the Presidential Fitness Challenge programs, which include the Presidential Active Lifestyle program and the Presidential Physical Fitness program.

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Lesson 2: Endurance Run/Walk & Shuttle Run
Physical Education 4 Unit 1: The Presidential Fitness Challenge: Introduction

Objectives: Learn the proper way to do the endurance run/walk; Learn the proper way to do the shuttle run; Demonstrate accurate completion of the endurance run/walk; Demonstrate accurate completion of the shuttle run.

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Lesson 3: Pull-ups, Push-ups, and Curl-ups
Physical Education 4 Unit 1: The Presidential Fitness Challenge: Introduction

Objectives: Learn the proper way to do pull-ups or push-ups; Demonstrate proper technique while doing pull-ups or push-ups; Learn the proper way to do curl-ups or partial curl-ups; Demonstrate proper technique while doing curl-ups or partial curl-ups.
Lesson 4: V-Sit and Reach
Physical Education 4 Unit 1: The Presidential Fitness Challenge: Introduction

Objectives: Learn the proper way to do the V-sit and reach; Demonstrate proper techniques while doing the V-sit and reach

Unit 2: Learning Locomotor Skills
Physical Education 4

Unit Summary

In this unit, your student will demonstrate age-appropriate proficiency in fundamental sports skills: throwing, catching, kicking, running, and jumping.

Your student will learn the eight principal locomotor skills: running, hopping, vertical jumping, horizontal jumping, galloping, sliding, skipping, and leaping. Some of these locomotor skills relate directly to sports skills, while others will assist your student with dance skills and in becoming a more skillful mover. Your student will also begin to participate in daily exercise activities.

Objectives
- Demonstrate eight principle locomotor skills
- Participate in various physical activities

Lessons
1. Jumping and Leaping
2. Move It!
3. Did You Catch That?
4. Which Way Am I Going?
5. I Am Strong and Sturdy
6. Upper Body Strength
7. Twist and Turn
8. Bending and Stretching
9. Jumping Beans
10. Jumping Beans II
11. Lower Body Strength

Lesson 1: Jumping and Leaping
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Demonstrate the locomotor skills necessary to participate in a variety of jumping routines; Learn the fundamentals of jumping and how it can help to improve overall physical fitness

Lesson 2: Move It!
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Demonstrate your speed and quickness through a series of movement drills; Practice the shuttle run, a part of the Presidential Physical Fitness Program
Lesson 3: Did You Catch That?
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Demonstrate locomotor skills necessary to catch a ball; Demonstrate locomotor skills necessary to throw a ball to another person; Improve hand-eye coordination and depth perception by catching a ball thrown by another person.

Lesson 4: Which Way Am I Going?
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Develop an understanding of the physical fitness concept of agility and demonstrate your agility through a series of exercise drills; Demonstrate the locomotor skills necessary to run and stop quickly.

Lesson 5: I Am Strong and Sturdy
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Demonstrate appropriate balancing technique by participating in a series of balancing exercises; Demonstrate upper body strength necessary to complete push-ups.

Lesson 6: Upper Body Strength
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Demonstrate the ability to utilize upper body strength to participate in various exercises; Improve upper body strength by performing exercises that target the upper body muscles.

Lesson 7: Twist and Turn
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Demonstrate flexibility through a series of stretching exercises; Increase flexibility in the upper body and abdomen by performing various twisting exercises.

Lesson 8: Bending and Stretching
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Demonstrate flexibility through a series of stretching exercises; Increase flexibility by performing various stretching exercises.
Lesson 9: Jumping Beans
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Demonstrate the ability to jump while maintaining balance in order to participate in jumping rope; Demonstrate jumping techniques.

Lesson 10: Jumping Beans II
Physical Education 4 Unit 2: Learning Locomotor Skills

Objective: Demonstrate balance and coordination necessary to participate in a variety of jumping routines.

Lesson 11: Lower Body Strength
Physical Education 4 Unit 2: Learning Locomotor Skills

Objectives: Demonstrate lower body strength by participating in a variety of exercises; Improve lower body strength by performing exercises that target those muscles.

Unit 3: Developing A Healthy Exercise Routine
Physical Education 4

Unit Summary

In this unit, your student will learn the four principles of exercise: regularity, overload, specificity, and progression. He will also learn about the four components—warm-up, stretching, exercise, and cool-down—that make up an effective exercise routine. Lastly, he will gain an understanding of why each one is important and then begin the suggested daily exercise activities.

Objectives
- List the principles of exercise
- Demonstrate the components of an exercise routine
- Demonstrate how to properly warm-up and cool-down

Lessons
1. A Healthy Exercise Routine
2. Flexibility Training
3. Aerobic Training
4. Strength and Endurance Training

Lesson 1: A Healthy Exercise Routine
Physical Education 4 Unit 3: Developing A Healthy Exercise Routine

Objectives: Identify the four principles of exercise; Identify the components of an exercise routine; Demonstrate how to properly warm-up and cool-down.
Lesson 2: Flexibility Training
Physical Education 4 Unit 3: Developing A Healthy Exercise Routine

**Objectives:** Learn about the importance of flexibility and its overall health benefits; Demonstrate a variety of stretching techniques in order to improve flexibility; Incorporate stretching into your daily exercise routine.

Lesson 3: Aerobic Training
Physical Education 4 Unit 3: Developing A Healthy Exercise Routine

**Objectives:** Learn the principles and importance of aerobic activity; Demonstrate aerobic activity and incorporate it into a daily exercise routine.

Lesson 4: Strength and Endurance Training
Physical Education 4 Unit 3: Developing A Healthy Exercise Routine

**Objectives:** Learn the importance of muscular strength; Learn the importance of muscular endurance; Incorporate strength and endurance exercises into a daily exercise routine.

Unit 4: Your Body and Exercise
Physical Education 4

**Unit Summary**
In this unit, your student will learn about how different factors affect her body during exercise. The unit explores body type and composition, proper diet and nutrition, the importance of fluids during exercise, how the human body maintains a healthy balance, and how exercise-related injuries can be prevented and cared for.

**Objectives**
- Define body type and body composition
- Understand the value of eating a healthy diet
- Explain the importance of fluids for your body
- Demonstrate appropriate care and prevention of exercise-related injuries

**Lessons**
1. Body Composition
2. Nutrition & Healthy Eating
3. The Importance of Fluids
4. Injuries
Lesson 1: Body Composition
Physical Education 4 Unit 4: Your Body and Exercise

Objectives: Learn about different body types and the characteristics of each; Identify the three components of body composition; Calculate your Body Mass Index using a BMI Calculator

Lesson 2: Nutrition & Healthy Eating
Physical Education 4 Unit 4: Your Body and Exercise

Objectives: Identify the five food groups that make up MyPlate; Explain why eating a healthy diet is important to overall wellness; Name specific foods and what food group they belong to

Lesson 3: The Importance of Fluids
Physical Education 4 Unit 4: Your Body and Exercise

Objectives: Define homeostasis and explain the role it plays in body system regulation; Explain why replacing fluids is important during exercise

Lesson 4: Injuries
Physical Education 4 Unit 4: Your Body and Exercise

Objectives: Learn how to prevent exercise-related injuries; Learn how to care for exercise-related injuries

Unit 5: The Presidential Fitness Challenge
Physical Education 4

Unit Summary
In this unit, your student will participate in The Presidential Physical Fitness Challenge. The President's Challenge is a program created by the United States government that rewards students for being physically active and physically fit. Your student will complete various exercises and submit a record of his performance in these exercises to his teacher for verification and recognition.

Objective
- Participate in The Presidential Physical Fitness Challenge

Lessons
1. Endurance Run/Walk and Shuttle Run
2. Pull-ups or Push-ups and Curl-ups
3. V-Sit and Reach
Lesson 1: Endurance Run/Walk and Shuttle Run
Physical Education 4 Unit 5: The Presidential Fitness Challenge

Objectives: Participate in The Presidential Physical Fitness Challenge; Complete the endurance run/walk; Complete the shuttle run

Lesson 2: Pull-ups or Push-ups and Curl-ups
Physical Education 4 Unit 5: The Presidential Fitness Challenge

Objectives: Participate in The Presidential Physical Fitness Challenge; Complete pull-ups or push-ups; Complete curl-ups

Lesson 3: V-Sit and Reach
Physical Education 4 Unit 5: The Presidential Fitness Challenge

Objectives: Participate in The Presidential Physical Fitness Challenge; Complete the v-sit and reach

Unit 6: Games Around The World
Physical Education 4

Unit Summary
In this unit, your student will learn about games played by children in other countries. She will learn games from countries in Asia in the first lesson. Next she will look at games that are played in countries in Europe. The third lesson will concentrate on games that children play in Australia. Finally, in the fourth lesson your student will focus on games from countries in Africa.

Objectives
• Participate in various games played by children in other countries
• Demonstrate locomotor skills necessary for running and jumping

Lessons
1. Asia
2. Europe
3. Australia
4. Africa

Lesson 1: Asia
Physical Education 4 Unit 6: Games Around The World

Objectives: Participate in games that are played by children in Asia; Demonstrate locomotor skills necessary for running and jumping
Lesson 2: Europe
Physical Education 4 Unit 6: Games Around The World

Objectives: Participate in games that are played by children in Europe; Demonstrate locomotor skills necessary for running and jumping; Demonstrate hand-eye coordination necessary to catch a ball with a cup

Lesson 3: Australia
Physical Education 4 Unit 6: Games Around The World

Objectives: Participate in games that are played by children in Australia; Demonstrate hand-eye coordination necessary to throw and catch a ball; Demonstrate locomotor skills necessary to run

Lesson 4: Africa
Physical Education 4 Unit 6: Games Around The World

Objectives: Participate in games that are played by children in Ghana; Demonstrate locomotor skills necessary for running and jumping
PHYSICAL EDUCATION 5
Physical Education 5  
Course Summary  
At the fifth grade level students understand the concept of fair play and begin to recognize the varying fitness levels within the appropriate age standards. Playing by the rules and respecting self and others are emphasized as students participate in cooperative physical education activities. Students see how levels of physical activity and food intake are related to a healthy productive life-style.

The President's Council on Physical Fitness and Sports Tests will be part of his/her curriculum. Depending on the program chosen, the student will have the opportunity to record his results on a periodic basis, and receive the appropriate award depending on the performance level.

Units
1. The Presidential Fitness Challenge: Introduction
2. Learning Locomotor Skills
3. Developing a Healthy Exercise Routine
4. Your Body and Exercise
5. The Presidential Fitness Challenge
6. Games Around The World

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Unit 1: The Presidential Fitness Challenge: Introduction
Physical Education 5

Unit Summary
In this unit, your student will learn about The Presidential Fitness Challenge. The President’s Challenge is a program created by the United States government that rewards students for being physically active and physically fit. Your student will learn about the events involved, the awards that he can win, and how to keep track of his progress. By the end of this unit, your student will have taken his first step toward earning the Presidential Physical Fitness Award or the Presidential Active Lifestyle Award.

Objectives
- Learn about the Presidential Fitness Challenge programs which include the Presidential Active Lifestyle program and the Presidential Physical Fitness program
- Learn how to keep track of exercise progress

Lessons
1. About the Presidential Fitness Challenge
2. Endurance Run/Walk & Shuttle Run
3. Pull-ups, Push-ups, and Curl-ups
4. V-Sit and Reach

Lesson 1: About the Presidential Fitness Challenge
Physical Education 5 Unit 1: The Presidential Fitness Challenge: Introduction

Objective: Learn about the Presidential Fitness Challenge programs, which include the Presidential Active Lifestyle program and the Presidential Physical Fitness program

Lesson 2: Endurance Run/Walk & Shuttle Run
Physical Education 5 Unit 1: The Presidential Fitness Challenge: Introduction

Objectives: Learn the proper way to do the endurance run/walk; Learn the proper way to do the shuttle run; Demonstrate accurate completion of the endurance run/walk; Demonstrate accurate completion of the shuttle run

Lesson 3: Pull-ups, Push-ups, and Curl-ups
Physical Education 5 Unit 1: The Presidential Fitness Challenge: Introduction

Objectives: Learn the proper way to do pull-ups or push-ups; Demonstrate proper technique while doing pull-ups or push-ups; Learn the proper way to do curl-ups or partial curl-ups; Demonstrate proper technique while doing curl-ups or partial curl-ups
Lesson 4: V-Sit and Reach
Physical Education 5 Unit 1: The Presidential Fitness Challenge: Introduction

Objectives: Learn the proper way to do the V-sit and reach; Demonstrate proper techniques while doing the V-sit and reach

Unit 2: Learning Locomotor Skills
Physical Education 5

Unit Summary
In this unit, your student will demonstrate age-appropriate proficiency in fundamental sports skills: throwing, catching, kicking, running, and jumping.

Your student will learn the eight principal locomotor skills: running, hopping, vertical jumping, horizontal jumping, galloping, sliding, skipping, and leaping. Some of these locomotor skills relate directly to sports skills, while others will assist your student with dance skills and in becoming a more skillful mover. Your student will also begin to participate in daily exercise activities.

Objectives
- Demonstrate eight principle locomotor skills
- Participate in various physical activities

Lessons
1. Steal the Ball
2. Marathon Walk/Run
3. Up and Down the Step Aerobics
4. Let’s Get Jumping
5. Let’s Have a Ball
6. Throw and Catch
7. You Can Build a Strong Upper Body
8. Get Flexible
9. Strong Legs Will Take You Far
10. Core Strength: Twisting and Turning
11. Fitness Around the House

Lesson 1: Steal the Ball
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop locomotor skills of running, and dribbling a ball with your feet

Lesson 2: Marathon Walk/Run
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop the locomotor skills of walking and running
Lesson 3: Up and Down the Step Aerobics
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop and demonstrate coordination

Lesson 4: Let's Get Jumping
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop and demonstrate the locomotor skill of jumping

Lesson 5: Let's Have a Ball
Physical Education 5 Unit 2: Learning Locomotor Skills

Objectives: Develop the locomotor skills of throwing and catching a ball; Develop eye-hand coordination skills

Lesson 6: Throw and Catch
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop accurate throwing, catching, visual tracking, and dexterity

Lesson 7: You Can Build a Strong Upper Body
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop knowledge of exercises that strengthen the upper body

Lesson 8: Get Flexible
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop flexibility by performing bending and stretching exercises

Lesson 9: Strong Legs Will Take You Far
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop strength in the lower body through interval training
Lesson 10: Core Strength: Twisting and Turning
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop core strength through the use of twisting and turning skills

Lesson 11: Fitness Around the House
Physical Education 5 Unit 2: Learning Locomotor Skills

Objective: Develop fitness skills by performing exercises that address different components of fitness

Unit 3: Developing a Healthy Exercise Routine
Physical Education 5

Unit Summary
In this unit, your student will learn the four principles of exercise: regularity, overload, specificity, and progression. He will also learn about the four components—warm-up, stretching, exercise, and cool-down—that make up an effective exercise routine. Lastly, he will gain an understanding of why each one is important and then begin the suggested daily exercise activities.

Objectives
- Demonstrate an understanding of the importance of flexibility and its overall health benefits
- Demonstrate a variety of stretching techniques
- Incorporate stretching into a daily exercise routine

Lessons
1. A Healthy Exercise Routine
2. Flexibility Training
3. Aerobic Training
4. Training for Strength and Endurance

Lesson 1: A Healthy Exercise Routine
Physical Education 5 Unit 3: Developing a Healthy Exercise Routine

Objectives: Identify the four principles of exercise; Identify the components of an exercise routine; Demonstrate how to properly warm up and cool down

Lesson 2: Flexibility Training
Physical Education 5 Unit 3: Developing a Healthy Exercise Routine

Objectives: Demonstrate an understanding of the importance of flexibility and its overall health benefits; Demonstrate a variety of stretching techniques in order to improve flexibility; Incorporate stretching into your daily exercise routine
Lesson 3: Aerobic Training
Physical Education 5 Unit 3: Developing a Healthy Exercise Routine

Objectives: Demonstrate an understanding of the importance of aerobic activity; Demonstrate an understanding of aerobic activities and include them in a daily exercise routine.

Lesson 4: Training for Strength and Endurance
Physical Education 5 Unit 3: Developing a Healthy Exercise Routine

Objectives: Demonstrate an understanding of the importance of muscular strength; Demonstrate an understanding of the importance of muscular endurance; Incorporate strength and endurance exercises into a daily exercise routine.

Unit 4: Your Body and Exercise
Physical Education 5

Unit Summary

In this unit, your student will learn about how different factors affect her body during exercise. The unit explores body type and composition, proper diet and nutrition, the importance of fluids during exercise, how the human body maintains a healthy balance, and how exercise-related injuries can be prevented and cared for.

Objectives

- Define body type and body composition
- Understand the value of eating a healthy diet
- Explain the importance of fluids for your body
- Demonstrate appropriate care and prevention of exercise-related injuries

Lessons

1. Body Composition
2. Nutrition & Healthy Eating
3. The Importance of Fluids
4. Injuries

Lesson 1: Body Composition
Physical Education 5 Unit 4: Your Body and Exercise

Objectives: Learn about different body types and the characteristics of each; Identify the three components of body composition; Calculate your Body Mass Index using a BMI Calculator.
Lesson 2: Nutrition & Healthy Eating
Physical Education 5 Unit 4: Your Body and Exercise

Objectives: Identify the five food groups that make up MyPlate; Explain why eating a healthy diet is important to overall wellness; Name specific foods and what food group they belong to

Lesson 3: The Importance of Fluids
Physical Education 5 Unit 4: Your Body and Exercise

Objectives: Define homeostasis and explain the role it plays in body system regulation; Explain why replacing fluids is important during exercise

Lesson 4: Injuries
Physical Education 5 Unit 4: Your Body and Exercise

Objectives: Learn how to prevent exercise-related injuries; Learn how to care for exercise-related injuries

Unit 5: The Presidential Fitness Challenge
Physical Education 5

Unit Summary
In this unit, your student will participate in The Presidential Physical Fitness Challenge. The President's Challenge is a program created by the United States government that rewards students for being physically active and physically fit. Your student will complete various exercises and submit a record of his performance in these exercises to his teacher for verification and recognition.

Objective
• Participate in The Presidential Physical Fitness Challenge

Lessons
1. Endurance Run/Walk and Shuttle Run
2. Pull-ups or Push-ups and Curl-ups
3. V-Sit and Reach

Lesson 1: Endurance Run/Walk and Shuttle Run
Physical Education 5 Unit 5: The Presidential Fitness Challenge

Objectives: Participate in The Presidential Physical Fitness Challenge; Complete the endurance run/walk; Complete the shuttle run
Lesson 2: Pull-ups or Push-ups and Curl-ups
Physical Education 5 Unit 5: The Presidential Fitness Challenge

Objectives: Participate in The Presidential Physical Fitness Challenge; Complete pull-ups or push-ups; Complete curl-ups

Lesson 3: V-Sit and Reach
Physical Education 5 Unit 5: The Presidential Fitness Challenge

Objectives: Participate in The Presidential Physical Fitness Challenge; Complete the v-sit and reach

Unit 6: Games Around The World
Physical Education 5

Unit Summary

In this unit, your student will learn about games played by children in other countries. She will learn games from countries in Asia in the first lesson. Next she will look at games that are played in countries in Europe. The third lesson will concentrate on games that children play in Australia. Finally, in the fourth lesson your student will focus on games from countries in Africa.

Objectives

• Participate in various games played by children in other countries
• Demonstrate locomotor skills necessary for running and jumping

Lessons

1. Asia
2. Europe
3. Australia
4. Africa

Lesson 1: Asia
Physical Education 5 Unit 6: Games Around The World

Objectives: Participate in games that are played by children in Asia; Demonstrate locomotor skills necessary for running and jumping

Lesson 2: Europe
Physical Education 5 Unit 6: Games Around The World

Objectives: Participate in games that are played by children in Europe; Demonstrate locomotor skills necessary for running and jumping; Demonstrate hand-eye coordination necessary to catch a ball with a cup
Lesson 3: Australia
Physical Education 5 Unit 6: Games Around The World

Objectives: Participate in games that are played by children in Australia; Demonstrate hand-eye coordination necessary to throw and catch a ball; Demonstrate locomotor skills necessary to run.

Lesson 4: Africa
Physical Education 5 Unit 6: Games Around The World

Objectives: Participate in games that are played by children in Ghana; Demonstrate locomotor skills necessary for running and jumping.
HEALTH &
PHYSICAL EDUCATION 6
Health and Physical Education 6

The Health and Physical Education course will provide the student with the foundation for concepts and skills necessary for lifelong health and physical fitness. In the health portion of the course, the student will be introduced to and assessed on various topics ranging from body systems to proper nutrition and fitness, as well as understanding what it means to be healthy. The student will also be introduced to skills that can be applied toward healthy behaviors. The physical education portion of the course will offer great freedom as the student will be able to choose a physical education regimen that will fit the student’s individual needs. The student will be given a choice of three paths that place emphasis on lifelong activities as well as current fitness trends. Physical education lessons are geared toward a “physically fit” lifestyle that will aid the student in the years to come and ensure a higher quality of life.

Unit 1: Your Health and Wellness

In this unit, you will learn about the health triangle and find out about the difference between health and wellness. You will also identify the factors that influence health, skills that will help you stay healthy, and the importance of goals.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop Box in the last lesson.

Objectives:
• Identify the three parts of the health triangle and the factors and behaviors that influence your health
• Explain the relationship between health and wellness and how to balance your physical, mental, and social health
• Identify skills that can help you maintain your health and describe how your attitude can affect your health
• Explain how to set goals and why having goals are important

Lesson 1: Overall Health

Objectives:
• Identify the three parts of the health triangle
• Describe the relationship between overall health and wellness
• Explain the importance of maintaining balance among your physical, mental/emotional, and social health

Lesson 2: Factors Affecting Your Health

Objectives:
• Identify factors that affect your health
• Explain how your behavior and choices play a role in your health
• Describe how your health is affected by your behavior

Lesson 3: Your Health Is Your Responsibility

Objectives:
• Identify skills that help you maintain a healthy life
• Explain the importance of healthy life skills

Lesson 4: Responsible Decision Making

Objectives:
• Identify the steps involved in making responsible decisions
• Explain the importance of values when making decisions
• Practice good decision-making skills

Lesson 5: Create Your Health Goals

Objectives:
• Explain the importance of having goals
• Describe the steps of setting goals

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• Develop a plan to achieve your goals

**Unit 2: Your Character Counts**

In this unit, you will learn about self-concept, the characteristics of a good self-concept, and ways to show your good character. You will also find out about stress and how to manage it to stay healthy. At the end of the unit, you will explore emotional problems, the warning signs of suicide, and how to find help for emotional problems.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Identify things that can influence your self-concept
- Explain how to develop good character
- Describe how to express strong feelings in a healthy way
- List ways to manage stress
- Describe the types of emotional problems

**Lesson 1: A Healthy Self-Concept**

Objectives:
- Describe your self-concept
- Identify what influences your self-concept
- Explain how you can build a healthy self-concept

**Lesson 2: Your Character Counts**

Objectives:
- Identify good character traits
- Explain how character is developed
- Describe what defines good character

**Lesson 3: Expressing Emotions**

Objectives:
- Explain what causes emotions
- Express strong feelings in a healthy way
- Discuss the importance of teen abstinence

**Lesson 4: Stress is All around Us**

Objectives:
- Explain what stress is
- Describe how stress affects the body
- List strategies for managing stress

**Lesson 5: Emotional Problems**

Objectives:
- Describe the different types of emotional problems
- Recognize key warning signs of suicide
- Identify resources for help with emotional problems

**Unit 3: Healthy Relationships**

In this unit, you will learn about different ways to communicate and how to be a better speaker. You will describe different types of families, the ways families care for each other, and how to handle family problems. Then you will explore the qualities of good friends and how to identify good character traits in your friends. At the end of the unit, you will discover the reason for conflicts and how to protect yourself from violence.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.
Objectives:
- Identify the different communication styles to learn how to become a better communicator
- Describe the different types of family units, family roles within a unit, and how they care for each other
- Learn how to identify quality character traits in friends
- Understand the different kinds of peer pressure and how to resist them
- Explain why conflicts occur and the strategies to use to resolve them

Lesson 1: Communication Skills

Objectives:
- Explain the various ways people communicate
- Describe how to become a better speaker and listener
- Identify the three communication styles

Lesson 2: Your Family

Objectives:
- Recognize various types of family structures
- Identify your family role
- Explain how members of a family care for each other

Lesson 3: Friends and Peers

Objectives:
- Identify the qualities a good friend should have
- Recognize the character traits of friends
- Compare and contrast the two different types of peer pressure

Lesson 4: How to Use Refusal Skills

Objectives:
- Identify how to resist peer pressure using refusal skills
- Demonstrate negative peer pressure refusal skills

Lesson 5: Resolving Conflicts

Objectives:
- Explain the reason for conflicts
- Describe methods of protecting yourself from violence
- Discuss negotiation strategies for resolving conflicts

Unit 4: Nutrition

In this unit, you will learn the six main classes of nutrients, which foods can be eaten to obtain nutrients, and which kinds of foods will keep you healthy according to the USDA food guidance system. You will find out how to choose healthy foods and analyze the key nutrients in a food product.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Identify the main nutrient groups and determine the proper foods that will provide you with these nutrients
- Identify the five food groups and demonstrate how to use MyPlate to plan nutrient-rich meals
- Recognize what influences your food choices and identify ways to maintain a healthy weight

Lesson 1: Nutrients Your Body Needs

Objectives:
- Identify the six main nutrient groups
- Determine the proper foods you can eat to obtain nutrients
• Analyze a recipe for key nutrients

Lesson 2: Guidelines for Eating Healthy

Objectives:
• Identify the five food groups
• Discuss the proper use of the MyPlate food guidance system
• Demonstrate how to use the MyPlate to plan a nutrient-rich meal

Lesson 3: Healthy Choices

Objectives:
• Recognize what influences your food choices
• Interpret guidelines for choosing healthy foods
• Explain how healthy weight is maintained
• Examine the various eating behavior problems

Unit 5: Personal Health

In this unit, you will learn about personal hygiene, including taking care of your teeth, hair, and skin. You will discover ways to care for your ears and eyes. You will also learn about consumer products and the influences of advertising. Toward the end of the unit, you will find out about health care in your community.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
• Demonstrate routine care of your body to maintain health
• Discuss how to properly use the media to make healthy consumer choices
• Explain how communities affect your health

Lesson 1: Your Teeth, Skin, and Hair

Objectives:
• Demonstrate how to keep your teeth and gums healthy
• Discuss examples of how to take care of your skin
• Describe the proper care for hair and nails

Lesson 2: Protecting Your Eyes and Ears

Objectives:
• Outline proper care for your eyes and ears
• Demonstrate how to protect your hearing

Lesson 3: Choosing Health Products

Objectives:
• Explain influences on your consuming choices
• Demonstrate how to wisely choose health products
• Evaluate how consumer choices are influenced by the media

Lesson 4: Using Medicines Responsibly

Objectives:
• Explain the benefits of medicine
• Interpret medicine label information

Lesson 5: Health Care in Your Community

Objectives:
• Distinguish between the different types of health care providers
• Outline the importance of regular health checkups

Lesson 6: First Aid for Emergencies

Objectives:
• Explain strategies for responding to injuries
• Outline the steps to help someone who is bleeding
• Demonstrate the universal sign for choking
• Describe how to help a burn victim

Unit 6: Human Body Systems

In this unit, you will identify the body's building blocks, the major body systems, and ways to care for your body. You will look at the body systems, including the skeletal system and the muscular system, and find out how they work. You will also look at the digestive system and respiratory system and what they do to influence your health.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
• Explain the parts and functions of the major body systems
• Summarize how the body changes over time

Lesson 1: Your Cells and Systems

Objectives:
• Connect the body’s building blocks
• Classify the major body systems and describe their functions

Lesson 2: Bones and Muscles Working Together

Objectives:
• Classify the parts and functions of the skeletal system
• Examine the parts and functions of the muscular system
• Discover ways to protect the bones and muscles

Lesson 3: The Digestion and Elimination Cycle

Objectives:
• Relate the parts and functions of the digestive system
• Relate the parts and functions of the excretory system
• Summarize ways to care for the digestive and excretory systems

Lesson 4: Heart, Lungs, and Nerves Working Together

Objectives:
• Describe how blood circulates through the body
• Investigate how your nervous system controls body functions
• Examine environmental factors that influence respiratory health

Unit 7: Tobacco

In this unit, you will learn about tobacco and the dangerous effects it has on the body. You will understand the influences on teens to try tobacco and how to gather reliable information on teens and tobacco use. In the last lesson of this unit, you will learn about ways to say no to tobacco, how to quit smoking if you are addicted, and the rights of nonsmokers.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
• Give examples of how tobacco harms your body
• Identify influences that encourage tobacco use in teens
• Practice strategies of refusing tobacco

Lesson 1: The Dangers of Tobacco

Objectives:
• Outline how tobacco damages your health
• Illustrate how tobacco leads to addiction

**Lesson 2: Teen Tobacco Use**

Objectives:
• Describe influences that contribute to teens trying tobacco
• Connect negative influences to teen tobacco use

**Lesson 3: Free From Tobacco**

Objectives:
• Simulate how to say no to tobacco
• Outline methods of giving up tobacco use

**Unit 8: Using Alcohol and Other Drugs**

In this unit, you will learn about alcohol and drugs. You will learn about why teens use alcohol and ways to help a friend avoid alcohol. You will learn the cycle of addiction, the dangers of drug use, and ways to say no to drugs.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
• Investigate the effects of teen use of alcohol
• Construct strategies for fighting teen addictions
• Highlight the dangers of illegal drug use

**Lesson 1: Alcohol: Dangerous Drinking**

Objectives:
• Relate how alcohol affects the body and the mind
• Investigate why some teens use alcohol

**Lesson 2: The Dangers of Alcohol Use**

Objectives:
• Investigate the alcohol cycle of addiction
• Establish the health risks of drinking during pregnancy
• Outline alcohol-free strategies to reduce stress

**Lesson 3: The Look of Illegal Drug Use**

Objectives:
• Recognize the dangers of illegal drugs
• Compare marijuana and inhalant risks
• Classify the harmful effects of drug abuse
• Correlate recovery and withdrawal
• Summarize treatments for drug addicts
HEALTH & PHYSICAL EDUCATION 7
Health and Physical Education 7

The Health and Physical Education course will guide the student through material that will promote healthy, active lifestyles. Health topics include issues that are relevant to the age group, such as mental and emotional health, conflict resolution, and bullying. The student will also be immersed in the prevention and avoidance of drugs, alcohol, and tobacco. The student will receive the necessary strategies to help avoid the pitfalls of unhealthy and risky behaviors. The physical education portion of the course will offer great freedom as the student will be able to choose a physical education regimen that will fit the student’s individual needs. The student will be given a choice of three paths that place emphasis on lifelong activities as well as current fitness trends. Physical education lessons are geared toward a “physically fit” lifestyle that will aid the student in the years to come and ensure a higher quality of life.

Unit 1: Understanding Health and Wellness

In this unit, you will learn about the health triangle, and you will find out how to differentiate between overall health and wellness. You will also identify the factors that influence health and the basic but important skills that help you stay healthy.

In the Physical Education portion of the lesson, you will learn about the President's Challenge. The President’s Challenge is a program created by the U.S. government that rewards students for being physically active and physically fit. You will learn about the history and guidelines of the Active Lifestyle Program, why staying active is important, and how to set activity goals and log results. By the end of this unit, you will have taken your first steps toward earning the Presidential Active Lifestyle Award.

Objectives:
- Identify the parts of the health triangle and how the mind and body are connected
- Explain the difference between overall health and wellness and identify the ten basic skills that you need for maintaining good health
- Explain how your environment and risky behavior can affect your total health

Lesson 1: Overall Health

Objectives:
- Identify the three different aspects of health
- Determine the link between health and wellness
- Describe how the body and mind are connected

Lesson 2: Taking Responsibility for Your Health

Objectives:
- List and explain the three steps necessary for achieving health goals
- Identify the seven health skills needed to ensure a healthy you

Lesson 3: Factors That Affect Your Health

Objectives:
- Explain why heredity is a health factor you cannot control
- Describe two types of environmental health factors and explain the role each plays in your total health

Lesson 4: Understanding Health Risks

Objectives:
- Identify health risks
- Describe health consequences of risks and risky behavior
- Describe strategies you can use to evaluate health risks

Unit 2: Food and Nutrition

In this unit, you will learn about food and nutrition. You will learn about the nutrients required by the body to function properly, how to use the MyPlate plan to recognize different groups of foods, and how to choose foods for a healthy, balanced diet. Additionally, you will...
explore the concepts of body image and healthy weight and learn the benefits of maintaining a healthy weight.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Identify the classes of nutrients that supply the body with energy: carbohydrates, proteins, and fats
- Identify foods that are healthy sources of carbohydrates, proteins, and fats
- Understand the current guidelines for healthful eating
- Describe the process of digestion and excretion
- Recognize the importance of maintaining a healthy weight and body image

Lesson 1: Nutrients

Objectives:
- Define “nutrient” and identify the three classes of nutrients that supply your body with energy
- Describe how your body gets energy from the food you eat
- Describe the role of carbohydrates, proteins, and fats as nutrients
- Recognize sources of carbohydrates, proteins, and fats in your diet
- Learn how to select foods to create a healthy, balanced diet

Lesson 2: Choosing Food Wisely

Objectives:
- Identify three main reasons why you eat
- Describe the different influences on choices of food
- Evaluate food choices using food labels
- Identify healthy food choices using the MyPlate plan

Lesson 3: Planning Healthy Meals

Objectives:
- Explain how dietary guidelines can help you plan a healthy diet
- Utilize the MyPlate plan and Dietary Guidelines for Americans to plan healthy meals

Lesson 4: Digestion and Excretion

Objectives:
- Identify the three main functions of the digestive system
- Describe the process of digestion
- Identify digestive organs and their functions
- Describe how your body eliminates waste products

Lesson 5: Healthy Body Image

Objectives:
- Examine how heredity, activity level, and body composition affect your weight
- Explain what body mass index (BMI) is
- Describe the benefits of having a positive body image

Lesson 6: Maintaining a Healthy Weight

Objectives:
- State the benefits of maintaining a healthy weight
- Identify health problems related to being overweight and underweight
- Identify three common eating disorders
- Explain the dangers of eating disorders

Unit 3: Mental and Emotional Health
In this unit, you will learn about personality, self-esteem, and emotions and how they affect your mental and emotional health. You will learn about the different types of stress and how stress affects your body. You will also learn different ways to manage or cope with stress. Finally, you will learn about mental and emotional disorders. You will learn to recognize signs of these disorders and understand causes of mental disorders.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Explain what personality, self-esteem, and emotions are and the role they play in your mental and emotional health
- Define stress and identify types of stress in your life
- Describe the body’s reaction to stress and identify ways to manage stress
- Identify mental disorders and recognize the warning signs of serious mental disorders
- Identify some causes of mental disorders

Lesson 1: Personality

Objectives:
- Identify the five traits that define personality
- Identify factors that affect how your personality develops
- Describe the stages of personality development

Lesson 2: Self-Esteem

Objectives:
- Define self-esteem and compare the effects of high and low self-esteem on your health
- Explain how self-esteem develops and changes as you grow
- Identify ways to improve self-esteem
- Summarize how to achieve your potential through the hierarchy of needs
- Identify the qualities of a self-actualized person

Lesson 3: Emotions

Objectives:
- Differentiate between primary and learned emotions
- Understand the importance of being aware of your emotions
- Identify ways to cope with difficult emotions

Lesson 4: Stress

Objectives:
- Define stress and identify sources of stress
- Describe the body’s reaction to stress
- Identify effective strategies to manage stress

Lesson 5: Mental Disorders

Objectives:
- Recognize symptoms of mental disorders
- Identify causes of mental disorders
- Identify different types of mental disorders

Unit 4: Resolving Conflicts and Preventing Violence

In this unit you will learn about the nature, causes, types, and signs of conflict. You will learn about negotiation and mediation, conflict resolution strategies, and how conflict can lead to violence. You will have the opportunity to develop skills to protect against violence. At the end of the unit you will explore different kinds of abuse and ways of seeking help if you are being abused.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will
update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Identify causes of conflict and describe different types of conflict
- Recognize signs of conflict and identify how conflict can lead to violence
- Demonstrate conflict resolution skills
- Identify causes of violence and develop skills to protect against violence
- Define abuse and identify warning signs of abuse

Lesson 1: Conflict

Objectives:
- Define and explain the nature of conflict
- Identify causes of conflict
- Recognize the signs of conflict
- Describe different types of conflict

Lesson 2: Conflict Resolution

Objectives:
- Identify characteristics of healthy relationships
- Describe skills for resolving conflict
- Practice conflict resolution

Lesson 3: Violence

Objectives:
- Define violence and identify types of violence
- Identify causes and risk factors of violence
- Describe the cycle of violence in dating relationships
- Identify characteristics of gangs

Lesson 4: Abuse

Objectives:
- Define abuse
- Describe different types of abuse
- Recognize signs of abuse
- Recognize that abuse is never the fault of the victim

Unit 5: Tobacco

In this unit you will learn about tobacco—the chemicals it contains and the dangerous effects it has on your body. You will learn how the respiratory system functions and how smoking can damage your respiratory system. You will also learn ways to say no to tobacco, quit smoking if you are addicted, and about the rights of nonsmokers.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Identify the harmful ingredients in tobacco and explain how tobacco affects the body
- Give reasons why teens use tobacco and describe nicotine addiction
- List reasons why it is good to be tobacco free and learn skills to avoid tobacco
- Identify organs of the respiratory system and list the functions of the respiratory system
- Explain how to keep your respiratory system healthy

Lesson 1: Chemicals in Tobacco Products

Objectives:
- Identify dangerous substances in tobacco products
- Explain how nicotine affects the body
- Describe nicotine addiction
Lesson 2: The Respiratory System

Objectives:
- Explain the function of the respiratory system
- Describe the breathing process
- Trace the path of air through the respiratory system
- Identify problems of the respiratory system and ways to keep it healthy

Lesson 3: Teens and Tobacco

Objectives:
- Identify factors that influence a teen’s decision about tobacco use
- Describe different tobacco products
- Describe changes in tobacco use over the past few decades

Lesson 4: Risks of Tobacco Use

Objectives:
- Describe long-term health risks of using tobacco products
- Identify the risks of exposure to secondhand smoke
- List ways to avoid exposure to secondhand smoke

Lesson 5: Saying No to Tobacco

Objectives:
- Recognize the importance of refusal skills to avoid tobacco use
- Identify benefits of being tobacco free
- Describe tips for quitting tobacco use

Unit 6: Alcohol

In this unit, you will learn about alcohol and the dangerous effects it has. You will be able to identify the parts of the nervous system and learn how to keep it healthy. You will develop refusal skills and learn why teens use alcohol. You will find out what to do if you or someone you know needs help with alcohol addiction.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Explain the short-term and long-term risks of using alcohol
- Identify parts of the nervous system and explain how to keep your nervous system healthy
- Identify influences on teen alcohol use and learn refusal skills
- Learn how alcohol addiction is treated

Lesson 1: Alcohol's Effects on the Body

Objectives:
- Identify facts about alcohol and describe short-term effects of alcohol on the body
- Define blood alcohol concentration (BAC) and identify factors that affect BAC
- Identify life-threatening effects of alcohol

Lesson 2: The Nervous System

Objectives:
- Identify the functions of the nervous system
- Explain the structure and function of a neuron
- Differentiate between the central and peripheral nervous systems
- Identify problems of the nervous system and ways to keep your nervous system healthy

Lesson 3: Teens and Alcohol

Objectives:
- Identify factors that influence teen drinking
Lesson 4: Long-Term Risks of Alcohol

Objectives:
- Identify serious long-term health effects of alcohol abuse
- Describe the stages and treatment of alcoholism
- Identify how alcohol abuse affects others

Lesson 5: Choosing Not to Drink

Objectives:
- Understand how refusal skills can help you stick to your decision not to drink
- Identify and practice refusal skills
- Describe benefits of avoiding situations where alcohol is present

Unit 7: Drugs

In this unit, you will learn about legal and illegal drugs and their effects on your body. You will learn about the risks of drug abuse, look at treatment options for people who abuse drugs, and learn steps you can take to stay drug free.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Define drug abuse and understand the difference between appropriate use and misuse of drugs
- Identify the effects of depressants, stimulants, and hallucinogens on the body
- Describe the risks of drug abuse
- Describe treatment options for people who abuse drugs
- Identify steps you can take to stay drug free

Lesson 1: Legal and Illegal Drugs

Objectives:
- Differentiate between legal and illegal drugs
- Differentiate between drug abuse, drug misuse, and appropriate drug use
- Describe different ways drugs affect your body
- Identify risks of drug abuse

Lesson 2: Commonly Abused Drugs

Objectives:
- Describe the effects of different classes of drugs on the body
- Identify classes of drugs of concern in recent years

Lesson 3: Factors Affecting Drug Abuse

Objectives:
- Identify risk factors for drug abuse
- Identify protective factors that help you stay drug free

Lesson 4: Choosing to Be Drug Free

Objectives:
- Recognize signs of drug abuse
- Identify treatment options for people who abuse drugs
- Describe steps you can take to stay drug free
HEALTH &
PHYSICAL EDUCATION 8
Health and Physical Education 8

The Health and Physical Education course will introduce the student to vital health concepts and reinforce health skills that promote healthy behaviors. The student will learn the functions and structures of various body systems as well as the care and prevention of disease to these systems. The student will learn about communicable diseases and how to prevent the spread of such diseases. The student will also be able to demonstrate the importance of proper nutrition by planning and analyzing meals and nutritional values. Proper actions in emergencies and safety procedures will also be included. The physical education portion of the course will offer great freedom as the student will be able to choose a physical education regimen that will fit the student's individual needs. The student will be given a choice of three paths that place emphasis on lifelong activities as well as current fitness trends. Physical education lessons are geared toward a "physically fit" lifestyle that will aid the student in the years to come and ensure a higher quality of life.

Unit 1: Understanding Your Health

In this unit, you will learn about your health and the three sides of the health triangle. The three sides explain what your body needs to be healthy. You will learn about healthy habits, physical changes during puberty, and the role of lifestyle factors in a person’s life.

In the Physical Education portion of the lesson, you will learn about the President’s Challenge. The President’s Challenge is a program created by the U.S. government that rewards students for being physically active and physically fit. You will learn about the history and guidelines of the Active Lifestyle Program, why staying active is important, and how to set activity goals and log results. By the end of this unit, you will have taken your first steps toward earning the Presidential Active Lifestyle Award.

Objectives:

- Identify the three sides of the health triangle and explain how different aspects of health affect wellness and learn how to practice healthy behaviors to improve your overall health
- Describe the physical, mental, and emotional changes that occur during puberty and explain how relationships may change during the teen years
- Explain the role of lifestyle factors in a person’s health and explain how abstinence benefits the three sides of the health triangle

Lesson 1: Factors Affecting Overall Health

Objectives:

- Define health today
- Identify and describe the three sides of the health triangle
- Explain how habits affect wellness

Lesson 2: Changes in the Teen Years

Objectives:

- Describe physical changes that occur during the teen years
- Describe the mental and emotional changes experienced during adolescence
- Explain how change during adolescence may affect your relationships
- Identify some healthy behaviors that contribute to emotional and mental health

Lesson 3: How to Make Responsible Health Decisions

Objectives:

- Recognize the importance of lifestyle factors in a person's health
- Describe risk-reducing behaviors and habits to reduce risks in your life
- Understand how to evaluate sources of health information

Unit 2: Mental and Emotional Health

In this unit, you will learn about the importance of good mental and emotional health in your life. A key component of mental and emotional health is your self-esteem; you will learn how it changes throughout your life, why healthy self-esteem affects every part of the health triangle, and ways in which your self-esteem can be improved. You will investigate different
types of emotions, identify ways of dealing with them, and recognize how stress also affects your overall health.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Recognize the importance of good mental and emotional health in your life
- Identify ways to increase your self-esteem
- Describe primary and learned emotions and healthy ways to express each of them
- Understand the causes of stress and identify ways to deal with them

Lesson 1: Understanding Mental and Emotional Health

Objectives:
- Describe characteristics of good mental and emotional health
- Recognize factors that affect your self-esteem
- Identify skills that help to build your self-esteem

Lesson 2: Emotions and Behavior

Objectives:
- Recognize common emotions
- Discover healthy ways to express emotions
- Identify how to manage anger in a healthful way

Lesson 3: How to Manage Stress

Objectives:
- Recognize the causes of stress
- Explain how your body responds to stress
- Describe habits for managing stress in your life

Lesson 4: Dealing with Loss

Objectives:
- Understand the stages of reactions that are associated with the grieving process
- Describe strategies for dealing with personal loss
- Find out how to emotionally support someone through the grief process

Unit 3: Mental and Emotional Problems

In this unit, you will familiarize yourself with various mental and emotional health disorders. You will learn how to recognize the signs of depression and teen suicide, allowing you to better communicate with someone with a mental health disorder. You will end the unit by investigating the different kinds of therapies available to treat mental and emotional health disorders.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Identify types of mental and emotional health disorders
- Identify signs of major depression
- Recognize the causes and warning signs of teen suicide
- Learn how to communicate effectively with someone with mental and emotional problems
- Describe the kinds of therapies used to treat mental and emotional health disorders
Lesson 1: Mental and Emotional Health Disorders

Objectives:
- Identify five types and signs of anxiety disorders
- Discover the common causes of mental and emotional health disorders
- Identify and describe two mood disorders
- Describe three signs of clinical depression

Lesson 2: Suicide Prevention

Objectives:
- Recognize warning signs of teen suicide
- Describe the causes of teen suicide
- Understand how to communicate to help someone who may be suffering from a mental or emotional health problem

Lesson 3: Help for Mental and Emotional Disorders

Objectives:
- Recognize why you or someone you know may be avoiding getting help for a mental illness
- Describe the kinds of therapies used to treat mental and emotional disorders
- Identify professionals who help people with mental health problems

Unit 4: Nutrition for Health

In this unit, you will learn the importance of nutrition not just as a word, but by the positive and negative impacts your eating habits can have on your body and overall health and well-being. You will identify the six major categories of nutrition and describe their importance. You will be introduced to nutritional guidelines that are essential for living a healthy lifestyle. You will also have the opportunity to evaluate and plan your own meals and snacks.

This unit enables you to take a real life look at your current nutritional habits while acknowledging necessary changes to allow yourself to live at a high level of wellness.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Identify environment and mental factors that influence food choices
- Identify the six major categories of nutrition
- Describe three ways your body uses nutrients
- Identify the five main food groups that create MyPlate
- Identify healthy ways to choose a snack

Lesson 1: The Benefits of Nutrition

Objectives:
- Describe the importance of nutrition on the body
- Explain how your mood can affect the foods that you eat

Lesson 2: Essential Nutrients for Wellness

Objectives:
- Identify the six major categories of nutrients
- Describe three ways your body uses nutrients

Lesson 3: Using Nutritional Guidelines

Objectives:
- Explain how to adequately use MyPlate as a guide for healthy eating
- Describe the recommendations for healthy eating provided by the Dietary Guidelines for Americans
Lesson 4: Planning for Meals and Snacks

Objectives:
- Understand why breakfast is the most important meal of the day
- Identify meal planning tips
- Identify healthy ways to choose a snack

Student Lesson Activity:

Complete the following activities.

1. Answer the following questions in your journal.
   1. Using knowledge from previous lessons, why are whole grains recommended for breakfast and lunch?
   2. Why is it possible for fruit to satisfy your sweet tooth over a cookie?
   3. Is it necessary to use each one of these tips for eating each time you consume food?

Select the link to access sample answers.

Sample Answers

2. Select the link to review the Sample Menus for a 2000 Calorie Food Pattern document, courtesy of ChooseMyPlate.gov.

Sample Menus for a 2000 Calorie Food Pattern

Review each menu listed for a seven-day period.

Answer the following questions in your journal.

If you had the resources to do so, what food would you choose for:
- breakfast
- lunch
- dinner
- snack

Discuss with your Learning Coach the benefits to consuming a variety of foods within one day.

If the ingredients allow, try one of the snacks listed for your next study break rather than a bag of chips!

Unit 5: Your Body Image

Throughout this unit you will have the opportunity to identify why food and physical activity can influence your weight so significantly. By understanding this concept you will be able to describe ways to maintain a healthy weight. When weight becomes a hindrance or displeasure oftentimes eating habits are taken to the extreme and individuals develop an eating disorder. In this unit you will learn the signs and symptoms and health risks associated with eating disorders as well as where to seek help for such conditions.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Describe how food and physical activity can have a major impact on your weight
- Identify three ways to maintain a healthy weight
- Identify signs and symptoms of eating disorders
- Describe the health risks associated with eating disorders
- Identify where someone can get help for an eating disorder
Lesson 1: Learning to Maintain a Healthy Weight

Objectives:
- Understand the importance of a healthy body image
- Describe how food and physical activity have a major impact on your weight
- Identify three ways to maintain a healthy weight

Lesson 2: Living with an Eating Disorder

Objectives:
- Identify signs and symptoms of eating disorders
- Describe the health risks associated with eating disorders
- Identify where someone can get help for an eating disorder

Unit 6: Your Body Systems

Throughout this unit, you will take a close look at various body systems. While this may sound like a science class, choosing healthy behaviors to keep each system functioning properly is essential to living a healthy and productive life. You will start by looking at the skeletal system and the important role it plays in offering support and protection for internal organs. You will then get a closer look at the muscular system, circulatory system, respiratory system, nervous system, digestive and excretory systems, endocrine system, and ending with the male and female reproductive systems. Knowing how your body operates is important, both for your current lifestyle and for future years as you continue to develop and age.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Describe the functions of the skeletal system
- Describe the process of circulation through the body
- Understand the parts and functions of the respiratory system
- Identify the importance of protecting your nervous system from injury
- Understand the parts and functions of both the male and female reproductive systems

Lesson 1: Human Skeletal System

Objectives:
- Describe the functions of the skeletal system
- Identify four types of joints located in the body
- Describe problems that can occur within the skeletal system
- Identify behaviors that can keep your skeletal system healthy

Lesson 2: Human Muscular System

Objectives:
- Describe the functions of the muscular system
- Identify the differences between various muscle types
- Identify behaviors that can keep your muscular system healthy

Lesson 3: Human Circulatory System

Objectives:
- Describe the process of circulation
- Identify and explain the parts of the circulatory system
- Identify behaviors that can keep your circulatory system healthy

Lesson 4: Human Respiratory System

Objectives:
- Describe how your body uses the air you breathe
- Identify and explain the parts and functions of the respiratory system
- Identify ways to maintain a healthy respiratory system
Lesson 5: Human Nervous System

Objectives:
- Describe the functions of the nervous system
- Identify and explain the different parts of the nervous system
- Identify ways to protect your nervous system from injury

Lesson 6: The Human Digestive and Excretory Systems

Objectives:
- Describe the process of excretion
- Identify ways to prevent problems to the digestive and excretory systems
- Identify behaviors for good digestive health

Lesson 7: Human Endocrine System

Objectives:
- Identify the main functions of the endocrine system
- Describe the jobs done by the different endocrine glands
- Explain disorders of the endocrine system

Lesson 8: Human Reproductive System

Objectives:
- Identify the parts of the male and female reproductive systems
- Describe three functions of the female reproductive system
- Identify problems that can be associated with the male and female reproductive systems
- Identify ways to keep your reproductive system healthy

Unit 7: Infectious Diseases

In this unit, you will learn about types of infectious diseases and how they are treated. In addition, you will learn about your body’s immune system and how it works to defend against dangerous pathogens. Your body has three lines of defense in the war against germs, and you will take a closer look at those defenses as you study the immune system. You will complete the unit by examining what you can do personally to prevent infectious diseases and keep yourself healthy.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- List the causes of infectious diseases
- List the three defenses your body has against infectious disease
- Identify how the immune system functions
- Discuss what causes colds and how to treat them
- Describe what you can do to prevent infectious diseases

Lesson 1: Understanding Infectious Diseases

Objectives:
- List the causes of infectious diseases
- Differentiate how germs are spread

Lesson 2: How Does the Body Fight Infectious Diseases?

Objectives:
- List the three lines of defense your body has against infectious disease
- Identify how the immune system functions
- Describe how antibodies defend against diseases

Student Lesson Activity:
Lesson 3: Common Infectious Diseases

Objectives:
- Name four common infectious diseases
- Discuss what causes colds and how to treat them
- Describe what you can do to prevent infectious diseases

Student Lesson Activity:

Complete the following review activity.
Select the image and complete the Types Of Pathogens interactive review.

Unit 8: Safety and Emergencies

In this unit, you will learn about safety and emergencies. You will learn how to keep yourself safe at home, school, outdoors, in the water, and on the road. We will cover the steps to take to reduce the risk of an accident occurring and the emergency plan in case an accident does occur. You will have the opportunity to learn first aid procedures for common emergencies as well as those that may be life-threatening. This unit will not make you an expert in responding to emergencies however, it will give you some tools and resources in case you ever have or approach an emergency.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will
update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Define the parts of an accident chain
- Identify ways to avoid injuries in the water and outdoors
- List the steps to take in an emergency
- Explain the different types of common emergencies
- Differentiate the different types of life-threatening emergencies

Lesson 1: Being Safe at Home and School

Objectives:
- Identify how to stay safe in the home and at school
- Define the parts of an accident chain
- Identify safe habits

Lesson 2: Being Safe Outdoors and on the Road

Objectives:
- Identify ways to avoid injuries in the water and outdoors
- Define how to stay safe as a pedestrian
- Differentiate safety and traffic rules for bicycles, skates, skateboards, and scooters

Lesson 3: First Aid

Objectives:
- Describe what are known as Universal Precautions
- List the steps to take in an emergency
- Organize your own first aid kit

Lesson 4: Handling Common Emergencies

Objectives:
- Explain the different types on common emergencies
- Identify first-aid treatments for common emergencies
- Understand when it is time to call for medical assistance

Lesson 5: Medical and Life-Threatening Emergencies

Objectives:
- Differentiate the different types of life-threatening emergencies
- List the steps to perform rescue breathing
- Describe the symptoms of shock
- Recite how to help someone who is choking

Unit 9: Environmental Health

In this unit, you will learn about environmental health. This unit will discuss air, water, and land pollution and the impact they have on the environment and our health. You will learn action steps that you can take to protect the environment and reduce your contribution to the growing problem associated with pollution. Finally, you will learn how you can have an impact on our planet by reducing, reusing, and recycling.

In the Physical Education portion of the lesson, depending on your plan for this course, you will be able to choose one of the following physical activities: Connections Academy Fitness, Vinyasa Yoga, or Personal Fitness. After completing your physical activity each day, you will update Activity Tracker or your PE Log. At the end of the unit, you will submit your tracked activities using the Drop box in the last lesson.

Objectives:
- Evaluate what contributes to air, water, and land pollution
- Discuss strategies to reduce the ways you contribute to pollution
- Assess how pollution affects the environment
- Define the three Rs: reduce, reuse, and recycle
- List the actions individuals can take to protect the environment
Lesson 1: The Impact of Pollution

Objectives:
- Define pollution
- Evaluate what contributes to air, water, and land pollution
- Discuss strategies to reduce the ways you contribute to pollution
- Assess how pollution affects the environment

Lesson 2: Reducing, Reusing, and Recycling

Objectives:
- Define the three Rs: reduce, reuse, and recycle
- List the actions individuals can take to protect the environment
- Describe nonrenewable resources
APPENDIX A
CURRICULUM

A.2 COURSE GUIDES

g. EDUCATIONAL TECHNOLOGY
This document is part of Appendix A: Curriculum.

It includes course guides for each Educational Technology class for students in Kindergarten through Grade 8.

- Educational Technology and Online Learning K
- Educational Technology and Online Learning 1
- Educational Technology and Online Learning 2
- Educational Technology and Online Learning 3
- Educational Technology and Online Learning 4
- Educational Technology and Online Learning 5
- Educational Technology and Online Learning 6
- Educational Technology and Online Learning 7
- Educational Technology and Online Learning 8

Course guides provide detailed information on the curriculum including course descriptions, unit summaries, lesson objectives, activities, and assessment types. Course guides include information on:

- Planned instruction (provided in the unit summary of each unit within individual Course Guides)
- Course objectives (provided in the unit and lesson objectives within individual Course Guides)
- Activities (provided in the unit summary and lesson objectives of each unit within individual Course Guides)
EDUCATIONAL TECHNOLOGY
AND ONLINE LEARNING
K
Educational Technology and Online Learning K

In this course, students will explore the features of a draw and paint program as a tool to support emerging reading, writing, and mathematics skills. They will locate letters and numbers on the keyboard. A study skills unit will introduce them to listening and visualization skills that will support learning across the school day. Students will recognize safe and responsible use of technology resources so that they can become model digital citizens.

Unit 1: Tux Paint

In this unit, your student will explore the features of a draw and paint program called Tux Paint. He will learn how to use the brush and other drawing tools to write uppercase and lowercase letters, draw pictures, and illustrate his understanding of newly learned academic skills. He will also learn how to use features such as the Text tool to type text and font attributes (i.e., bold, italics, and underline) to format the text. In addition, he will become familiar with the Shapes tool to incorporate shapes with fill and without fill to draw and color two-dimensional shapes as well as learn how to incorporate various stamps and backgrounds into his illustrations. As Tux Paint has the ability to intertwine fun and education, your student will not only develop his academic and artistic skills, but his imagination will soar!

Objectives:
- Identify, describe, pronounce, and write uppercase and lowercase letters c, d, j, k, l, m, n, q, s, and t
- Define high-frequency words all, are, at, be, but, did, do, eat, get, good, have, he, like, new, no, on, who, and will
- Compose meaningful sentences with high-frequency words all, are, at, be, but, did, do, eat, get, good, have, he, like, new, no, on, who, and will
- Name circles, squares, triangles, and rectangles and classify polygons
- Operate software tools in Tux Paint to write and type letters and key words, edit mistakes, format text, incorporate pictures, illustrate high-frequency words, construct two-dimensional shapes, plane figures, and polygons, and change text and shape colors

Lesson 1: Beginning Consonant C (two-day lesson)

Objectives:
- Academic: Identify and write an uppercase and a lowercase letter c and pronounce the correct consonant sound
- Academic: Illustrate the difference between an uppercase and a lowercase letter c
- Academic: Interpret pictures in order to identify words that begin with the letter c
- Technology: Demonstrate how to use the Paint tool in Tux Paint to illustrate an uppercase and a lowercase letter c
- Technology: Demonstrate how to use the Eraser tool in Tux Paint to edit mistakes

Lesson 2: Beginning Consonant D

Objectives:
- Academic: Identify and write an uppercase and a lowercase letter d and pronounce the correct consonant sound
- Academic: Interpret pictures in order to identify words that begin with the letter d
- Technology: Demonstrate how to use the Paint tool in Tux Paint to illustrate an uppercase and a lowercase letter d
- Technology: Demonstrate how to use the Eraser tool in Tux Paint to edit mistakes
- Technology: Demonstrate how to use the Stamp tool in Tux Paint to illustrate words that begin with the letter d

Lesson 3: Beginning Consonant J

Objectives:
Lesson 4: Beginning Consonant K

Objectives:
- Academic: Identify and write an uppercase and a lowercase letter k and pronounce the correct consonant sound
- Academic: Illustrate the difference between an uppercase and a lowercase letter k
- Technology: Demonstrate how to use features of the Paint tool in Tux Paint to illustrate an uppercase and a lowercase letter k using different sizes, strokes, and colors
- Technology: Demonstrate how to use the Eraser tool in Tux Paint to edit mistakes
- Technology: Demonstrate how to use the Stamp tool in Tux Paint to locate and integrate sign language symbols into Tux Paint pictures

Lesson 5: Beginning Consonant L

Objectives:
- Academic: Identify and write an uppercase and a lowercase letter l and pronounce the correct consonant sound
- Academic: Interpret pictures in order to identify words that begin with the letter l
- Technology: Demonstrate how to use the Text tool and Shift key in Tux Paint to type key words in both uppercase and lowercase letters
- Technology: Demonstrate how to use the Calligraphy effect button in Tux Paint to illustrate key words beginning with the letter m

Lesson 6: Beginning Consonant M (two-day lesson)

Objectives:
- Academic: Identify and write an uppercase and a lowercase letter m and pronounce the correct consonant sound
- Academic: Illustrate the difference between an uppercase and a lowercase letter m
- Technology: Demonstrate how to use the Paint tool in Tux Paint to illustrate an uppercase and a lowercase letter m using different sizes, strokes, and colors
- Technology: Demonstrate how to use the Eraser tool in Tux Paint to edit mistakes
- Technology: Demonstrate how to use the Calligraphy effect button in Tux Paint to illustrate key words beginning with the letter m

Lesson 7: Beginning Consonant N (two-day lesson)

Objectives:
- Academic: Identify and write an uppercase and a lowercase letter n and pronounce the correct consonant sound
- Academic: Illustrate the difference between an uppercase and a lowercase letter n
- Academic: Interpret pictures in order to identify words that begin with the letter n
- Technology: Demonstrate how to use the Text tool and Shift key in Tux Paint to type key words in both uppercase and lowercase letters
• Technology: Demonstrate how to use the Undo button in Tux Paint to edit mistakes

Lesson 8: Beginning Consonant Q

Objectives:
• Academic: Identify and write an uppercase and a lowercase letter q and pronounce the correct consonant sound
• Academic: Interpret pictures in order to identify words that begin with the letter q
• Technology: Demonstrate how to use the Paint tool in Tux Paint to illustrate an uppercase and a lowercase letter q
• Technology: Demonstrate how to use the Text tool and Shift key in Tux Paint to type key words in both uppercase and lowercase letters and format text in different colors
• Technology: Demonstrate how to use the Undo button in Tux Paint to edit mistakes

Lesson 9: Beginning Consonant S (two-day lesson)

Objectives:
• Academic: Identify and write an uppercase and a lowercase letter s and pronounce the correct consonant sound
• Technology: Demonstrate how to use the Text tool and Shift key in Tux Paint to type key words in both uppercase and lowercase letters
• Technology: Demonstrate how to use the Letters selector to format text in different font styles
• Technology: Demonstrate how to use the Undo button in Tux Paint to edit mistakes
• Technology: Demonstrate how to use the Stamp tool in Tux Paint to illustrate words that begin with the letter s

Lesson 10: Beginning Consonant T (two-day lesson)

Objectives:
• Academic: Identify and write an uppercase and a lowercase letter t and pronounce the correct consonant sound
• Technology: Demonstrate how to use the Text, Magic, and Paint tools to type and illustrate key words
• Technology: Demonstrate how to use the Text tool and format text in different colors, font styles, and sizes
• Technology: Demonstrate how to use the Undo button in Tux Paint to edit mistakes
• Technology: Demonstrate how to use the Stamp tool in Tux Paint to illustrate words that begin with the letter t

Lesson 11: Frequent Words: all, are, at, but, and who

Objectives:
• Academic: Identify and pronounce high frequency words all, are, at, but, and who
• Academic: Define high frequency words all, are, at, but, and who
• Academic: Compose meaningful sentences using high frequency words all, are, at, but, and who
• Technology: Demonstrate how to use the Paint tool and Text tool in Tux Paint to write and type high frequency words all, are, at, but, and who
• Technology: Demonstrate how to use the Stamp tool in Tux Paint to illustrate the meaning of high frequency words all, are, at, but, and who

Lesson 12: Frequent Words: did, do, eat, get, good, and have

Objectives:
• Academic: Identify and pronounce high frequency words did, do, eat, get, good, and have
• Academic: Define high frequency words did, do, eat, get, good, and have
• Academic: Compose meaningful sentences using high frequency words did, do, eat, get, good, and have
Lesson 13: Frequent Words: he, like, new, no, on, and will

Objectives:
- Academic: Identify and pronounce high frequency words he, like, new, no, on, and will
- Academic: Define high frequency words he, like, new, no, on, and will
- Academic: Compose meaningful sentences using high frequency words he, like, new, no, on, and will
- Technology: Demonstrate how to use the Paint tool and Text tool in Tux Paint to write and type high frequency words he, like, new, no, on, and will
- Technology: Demonstrate how to use the Stamp tool in Tux Paint to illustrate the meaning of high frequency words he, like, new, no, on, and will

Lesson 14: Recognizing Shapes (two-day lesson)

Objectives:
- Academic: Identify and name squares, circles, triangles, and rectangles
- Academic: Illustrate different shapes at various sizes
- Technology: Demonstrate how to use the Shapes tool and Color palette in Tux Paint in order to draw two-dimensional shapes in various colors
- Technology: Demonstrate how to use the Text tool in Tux Paint and label individual shapes

Lesson 15: Naming Shapes (two-day lesson)

Objectives:
- Academic: Identify, name, and draw squares, circles, triangles, and rectangles
- Academic: Classify polygons based on number of sides
- Technology: Demonstrate how to use the Shapes tool and Color palette in Tux Paint and draw two-dimensional shapes in various colors
- Technology: Demonstrate how to use the Text tool and Color palette in Tux Paint and label polygons in various colors
- Technology: Demonstrate how to use the Stamp tool in Tux Paint to compile real-world pictures that represent polygons

Unit 2: Keyboarding

In this unit, your student will explore letter and number recognition. She will be able to locate all letter and number keys. Your student will demonstrate correct posture and finger position while typing and apply proper touch-typing skills to type the home row letters.

Objectives:
- Academic: Identify the letters a–z on the keyboard
- Academic: Identify the numbers 0–9 on the keyboard
- Technology: Demonstrate how to use the keyboard to type the letters a–z
- Technology: Demonstrate how to use the keyboard to type the numbers 0–9

Lesson 1: Keyboarding A–M

Objectives:
- Identify and type the letters A–M on the keyboard

Lesson 2: Keyboarding N–Z

Objectives:
- Identify and type the letters N–Z on the keyboard

Lesson 3: Keyboarding Numbers and Letters
Objectives:
• Identify and type the letters A–Z on the keyboard
• Identify and type the numbers 0–9 on the keyboard

Unit 3: Study Skills
In this unit, your student will learn how to use basic study skills. He will begin the unit by creating a work environment suited for success. The lessons included in this unit will build your student’s listening skills, visualization, and online learning skills. These skills will aid your student in the online learning environment as well as the real world as he learns how to become an effective speaker and listener.

Objectives:
• Compare the online learning environment to that of a bricks-and-mortar environment
• Identify tips for successful online learning
• Identify ways that effective speakers help listeners
• Identify how pictures and other visual aids enhance reading and writing
• Explain how visuals demonstrate understanding

Lesson 1: Online Learning and a Proper Work Environment

Objectives:
• Academic: Identify familiar environments and compare them to the online learning environment
• Academic: Identify tips for successful online learning
• Technology: Apply digital tools and resources to address a variety of tasks and problems

Lesson 2: Listening and Speaking

Objectives:
• Academic: Discuss the importance of having good listening skills
• Academic: Describe ways that effective speakers help listeners
• Technology: Illustrate and communicate original ideas and stories using digital tools and resources
• Technology: Demonstrate the ability to navigate virtual environments

Lesson 3: Visualization (two-day lesson)

Objectives:
• Academic: Describe how pictures and other visuals enhance reading and writing
• Academic: Explain how visuals help demonstrate understanding
• Academic: Create a visual in Tux Paint to share information
• Technology: Demonstrate how to use simulations and graphic organizers to explore and depict patterns of growth, such as the life cycles of plants and animals

Unit 4: Internet Safety
In this unit, your student will learn about Internet safety. The goal of the lessons in this unit is to educate your student on how to avoid online dangers and stay safe while using the Internet. Your student will learn about the dangers of cyber bullies, strangers, and computer viruses by reading stories, discussing a variety of scenarios, learning safety tips, and completing other related activities.

Objectives:
• Develop an understanding of community and apply it to the knowledge of the Internet
• Describe qualities of being a good friend and citizen in the physical and cyber communities
• Examine the concept that computers can become infected with viruses and understand to use caution when opening e-mail
• Demonstrate an understanding of personal and online identity and making responsible choices to ensure safety in the cyber community
• Complete hands-on activities to reinforce technology vocabulary and concepts introduced

Lesson 1: Cyber Community
Objectives:
- Identify the concept of community and apply it to knowledge of the Internet
- Identify and discuss vocabulary words related to the Internet
- Relate and connect the physical community to the abstract concept of a cyber community
- Complete a hands-on activity to reinforce vocabulary and concepts introduced

**Lesson 2: Cyber Citizenship (two-day lesson)**

Objectives:
- Identify the qualities of being a good friend
- Understand that a bully is mean to people on purpose
- Understand that bullying can be online and offline

**Lesson 3: Cyber Security**

Objectives:
- Examine the concept that computers can become infected with viruses
- Explain why it is important to use caution and to seek help when opening e-mail
- Discuss the concept of the computer virus
- Engage in a discussion with the Learning Coach to learn about computer viruses

**Lesson 4: Personal Safety**

Objectives:
- Develop an understanding of the term identity
- Describe how an identity is formed online
- Explain why a trusted adult can help create and keep a student's online identity safe
EDUCATIONAL TECHNOLOGY
AND ONLINE LEARNING
1
Educational Technology and Online Learning 1

In this course, students build on foundational skills while using software to draw, type, and format text, and create presentations to support academic skills. Students learn listening and organizational skills and set attainable learning goals. Students become responsible users of technology as they learn about Internet safety and appropriate online behavior.

Unit 1: Introduction and Tux Paint

In this unit, your student will learn how to use Tux Paint, an interactive paint program, to express original ideas and create art. By the end of this unit, your student will learn how to illustrate concepts using the drawing, text, and shape tools within the program. He will also be able to draw pictures and select meaningful images from a gallery to support his understanding.

Objectives:
- Learn and use the basic tools of a draw and paint program
- Use the paint, text, and shape tools to modify and create words, sentences, and artwork
- Draw pictures and select images from a gallery to create original artwork

Lesson 1: Ending Consonant l

Objectives:
- Academic: Demonstrate how to pronounce the correct consonant sound when seeing the letter l
- Academic: Identify and compose sentences using words that end with the letter l
- Technology: Demonstrate how to use the Text tool to type words and sentences
- Technology: Demonstrate how to format text by changing the font style and size
- Technology: Demonstrate how to select and incorporate images from a stamp gallery that correspond to words that end with the letter l

Lesson 2: Ending Consonant m (two-day lesson)

Objectives:
- Academic: Demonstrate how to pronounce the correct consonant sound for the letter m
- Academic: Identify and compose sentences using words that end with the letter m
- Technology: Demonstrate how to use the Text tool to write words
- Technology: Demonstrate how to format text by changing the size and font type
- Technology: Demonstrate how to use stamp images that correspond to words ending with the letter m and use them to illustrate the words

Lesson 3: Ending Consonant p (two-day lesson)

Objectives:
- Academic: Demonstrate how to pronounce the correct consonant sound for the letter p
- Academic: Identify and compose sentences using words that end with the letter p
- Technology: Demonstrate how to use the Paint tool to write words ending with the letter p
- Technology: Demonstrate how to format the brush stroke, shape, and size within the Brushes selector

Lesson 4: Ending Consonant r

Objectives:
- Academic: Demonstrate how to pronounce the correct consonant sound for the letter r
- Academic: Interpret pictures to identify words that end with the letter r
• Academic: Identify and compose sentences using words that end with the letter r
• Technology: Demonstrate how to use the Magic tools including the calligraphy, metal paint, and rainbow effects to practice writing letter r words

Lesson 5: High Frequency Words: after, again, an, any, by

Objectives:
• Academic: Identify, read, and compose sentences using high frequency words
• Academic: Identify high frequency words in context
• Technology: Demonstrate how to use the Text tool in Tux Paint to type key words
• Technology: Demonstrate how to format font style and size within the Letters selector
• Technology: Demonstrate how to use the Stamp tool to illustrate high frequency words

Lesson 6: Short a Words (two-day lesson)

Objectives:
• Academic: Identify and read words with the short /a/ vowel sound
• Academic: Demonstrate how to correctly pronounce words with the short /a/ vowel sound
• Technology: Demonstrate how to use the Paint tool to write words with the short /a/ sound
• Technology: Demonstrate how to format the brush stroke, shape, size, and color in order to color code the short a vowel pattern in key words
• Technology: Demonstrate how to use the Stamp tool to illustrate words with the short /a/ vowel sound

Lesson 7: Short e Words

Objectives:
• Academic: Identify, read, and write sentences using words with the short /e/ vowel sound
• Academic: Demonstrate how to correctly pronounce words with the short /e/ vowel sound
• Technology: Demonstrate how to use the Paint tool to write words with the short /e/ sound
• Technology: Demonstrate how to format the brush stroke, shape, size, and color in order to color code the short e vowel pattern in key words
• Technology: Demonstrate how to use the Stamp tool to illustrate words with the short /e/ vowel sound

Lesson 8: Short i Words

Objectives:
• Academic: Identify, read, and write sentences using words with the short /i/ vowel sound
• Academic: Demonstrate how to correctly pronounce words with the short /i/ vowel sound
• Technology: Demonstrate how to use the Paint tool to write words with the short /i/ sound
• Technology: Demonstrate how to format the brush stroke, shape, size, and color in order to color code the short i vowel pattern in key words
• Technology: Demonstrate how to use the Stamp tool to illustrate words with the short /i/ vowel sound

Lesson 9: Short o Words (two-day lesson)

Objectives:
• Academic: Identify, read, and write words with the short /o/ vowel sound
• Academic: Demonstrate how to correctly pronounce words with the short /o/ vowel sound
Lesson 10: Short u Words (two-day lesson)

Objectives:
- Academic: Identify, read, and write words with the short /u/ vowel sound
- Academic: Demonstrate how to correctly pronounce words with the short /u/ vowel sound
- Technology: Demonstrate how to use the Text tool to type words with the short /u/ sound
- Technology: Demonstrate how to use the Text tool to format font style and size
- Technology: Demonstrate how to use the Stamp and Shapes tools to illustrate words or sentences

Lesson 11: Long a Words: Vowel Pattern a_e

Objectives:
- Academic: Identify, read, and write words and sentences using words with the long /a/ vowel sound
- Academic: Demonstrate how to correctly pronounce words with the long /a/ vowel sound
- Technology: Demonstrate how to use the Paint tool to write words with the long /a/ vowel sound
- Technology: Demonstrate how to format the brush stroke, shape, size, and color in order to color code the long a vowel pattern a_e.
- Technology: Demonstrate how to use the Stamp tool to illustrate keys words and sentences

Lesson 12: Long o Words: Vowel Pattern o_e

Objectives:
- Academic: Identify, read, and write words and sentences using words with the long /o/ vowel sound
- Academic: Demonstrate how to correctly pronounce words with the long /o/ vowel sound
- Technology: Demonstrate how to use the Paint tool to write words with the long /o/ vowel sound
- Technology: Demonstrate how to format the brush stroke, shape, size, and color in order to color code the long o vowel pattern o_e

Lesson 13: Long e Words: Vowel Patterns ee and ea

Objectives:
- Academic: Identify, read, and write words and sentences with the long /e/ sound and vowel patterns ee and ea
- Academic: Demonstrate how to correctly pronounce words with the long /e/ vowel sound
- Technology: Demonstrate how to use the Paint tool to write words with the long /e/ vowel sound
- Technology: Demonstrate how to format the brush stroke, shape, size, and color in order to color code the long e vowel patterns ee and ea
- Technology: Demonstrate how to use the Stamp tool to illustrate words with the long /e/ vowel sound

Lesson 14: Silly Sentences (two-day lesson)

Objectives:
- Academic: Identify pairs of rhyming words that have the same vowel sounds
• Academic: Compose sentences with pairs of rhyming words using words from previous lessons
• Technology: Demonstrate how to use the Text tool to type sentences with pairs of rhyming words
• Technology: Demonstrate how to use the Paint tool to write a sentence with a pair of rhyming words
• Technology: Demonstrate how to use the Stamp tool to illustrate a sentence with a pair of rhyming words

Lesson 15: Long i Words: Vowel Pattern i_e

Objectives:
• Academic: Identify, read, and write words and sentences with the long /i/ vowel sound
• Academic: Demonstrate how to correctly pronounce words with the long /i/ vowel sound
• Technology: Demonstrate how to use the Text tool and Paint tool in Tux Paint
• Technology: Demonstrate how to use the Stamp and Shapes tools to create math problems

Lesson 16: Long u Words: Vowel Pattern u_e

Objectives:
• Academic: Identify, read, and write words and sentences with the long /u/ vowel sound
• Academic: Demonstrate how to correctly pronounce words with the long /u/ vowel sound
• Technology: Demonstrate how to use the Text tool and Paint tool to make a poster
• Technology: Demonstrate how to format the brush stroke, shape, size, and color in order to color code the long u vowel pattern u_e
• Technology: Demonstrate how to use the Stamp tool to illustrate keys words or sentences

Lesson 17: Subtraction to 10 (two-day lesson)

Objectives:
• Academic: Solve subtraction problems within 10
• Academic: Construct subtraction equations using pictures, numbers, and symbols
• Technology: Demonstrate how to use the Stamp tool to illustrate subtraction problems within 10
• Technology: Demonstrate how to use the Stamp tool to add numbers and symbols to create an equation

Lesson 18: Telling Time to the Hour and Half Hour

Objectives:
• Academic: Demonstrate telling time to the hour and half hour using analog clocks
• Technology: Illustrate time to the hour and half hour using the Stamp and Paint tools
• Technology: Distinguish between the hour and minute hand using different brush colors

Lesson 19: The Best Pet Ever

Objectives:
• Academic: Describe the characteristics of a real or imaginary pet
• Technology: Demonstrate how to use Tux Paint to draw a picture
• Technology: Demonstrate how to select colors using the Custom palette

Unit 2: Microsoft® Word

In this unit, your student will learn basic Microsoft® Word techniques including how to type text, highlight and format text, and insert, format, and complete tables. Your student will insert Clip Art, WordArt, shapes, and text boxes.
Objectives:

- Evaluate the use of text features in informational text and incorporate elements within a Microsoft Word document
- Demonstrate how to incorporate Clip Art and pictures to illustrate concepts
- Apply digital tools and resources to enhance writing tasks
- Connect language arts and mathematical concepts to technology

Lesson 1: High Frequency Words

Objectives:

- Academic: Identify and read high frequency words
- Academic: Compose sentences using high frequency words
- Technology: Demonstrate how to type text and use the Enter key to begin new lines in a document
- Technology: Demonstrate how to italicize, bold, and underline text using font formatting buttons in the Home ribbon
- Technology: Demonstrate how to apply a different font face, color, and size using the Font Face, Font Color, and Font Size drop-down menus

Lesson 2: How Is the Character Feeling? (two-day lesson)

Objectives:

- Academic: Describe how a character in a story feels
- Academic: Analyze how a character in a story feels using key words
- Technology: Demonstrate how to type words in meaningful sentences
- Technology: Demonstrate how to adjust and apply formatting to font using menus and buttons within the Home ribbon

Lesson 3: Descriptive Words (two-day lesson)

Objectives:

- Academic: Describe pictures using descriptive words
- Academic: Compose sentences using descriptive words
- Technology: Demonstrate how to type words in meaningful sentences
- Technology: Demonstrate how to change the font face and font color using the Font Face and Font Size drop-down menus
- Technology: Demonstrate how to insert clip art to illustrate key words

Lesson 4: Counting the Sides of Shapes (two-day lesson)

Objectives:

- Academic: Identify and classify shapes based on their attributes
- Technology: Demonstrate how to insert and format shapes in a document using the Shapes drop-down menu
- Technology: Demonstrate how to insert a text box using the Text Box drop-down menu, and type numbers within a text box
- Technology: Demonstrate how to insert a table using the Text Box drop-down menu, add the correct number of rows and columns, and format the table in a document

Lesson 5: Highlighting Main Idea (two-day lesson)

Objectives:

- Academic: Identify the main idea in informational text
- Technology: Demonstrate how to highlight the main idea of an article using the Highlighter tool
- Technology: Demonstrate how to use Word Art to create titles in a document
- Technology: Demonstrate how to add meaningful clip art to an article to express the main idea

Lesson 6: Navigating Text Features

Objectives:

- Academic: Identify text features in informational text
- Academic: Analyze and assess the use of text features in informational text
Lesson 7: Creating a Poster (two-day lesson)

Objectives:
- Academic: Plan and design an informational poster
- Academic: Create an informational poster using text features
- Technology: Demonstrate how to insert pictures from the computer into a document
- Technology: Demonstrate how to use font formatting features, insert shapes, clip art, and add text boxes in a document

Unit 3: Microsoft® PowerPoint

In this unit, your student will explore and be introduced to a variety of features in Microsoft® PowerPoint. He will learn how to make a presentation with different slide layouts, how to insert and move images, and how to add text to slides to classify objects and illustrate a food chain.

Objectives:
- Construct, interpret, and manipulate presentations to classify objects and illustrate a food chain
- Discriminate the similarities between objects to classify and categorize them
- Analyze elements within a food chain

Lesson 1: Classifying Information

Objectives:
- Academic: Identify similarities among objects
- Academic: Classify and categorize objects based on their similarities
- Technology: Demonstrate how to build a presentation by inserting new slides using the New Slide drop-down menu
- Technology: Demonstrate how to incorporate titles within text boxes on each slide to name a category
- Technology: Illustrate classified objects using clip art

Lesson 2: The Food Chain (two-day lesson)

Objectives:
- Academic: Identify and sequence plants and animals in a food chain
- Academic: Create a food chain to illustrate how animals satisfy their need for food
- Technology: Demonstrate how to incorporate new slides in order to build a presentation
- Technology: Demonstrate typing text and adding clip art to illustrate the food chain
- Technology: Demonstrate how to select and moves slides in order to create a food chain

Unit 4: Microsoft® Excel

In this unit, your student will learn how to navigate a Microsoft Excel workbook. Within lesson workbooks, she will navigate between sheets, and learn how to select cells in a specific column and row. She will learn how to copy and paste text and numbers into cells. Your student will also type numbers in a data table, and use the numbers to generate and interpret graphs and charts.

Objectives:
- Identify multiples of 5 and 10 and parts of 10
- Illustrate two parts of 10 on a ten-frame using a cell fill color
- Utilize a hundreds chart to find the missing part of 10 and complete a part-part-whole table
- Demonstrate typing in cells and navigating between cells and worksheets in a Microsoft Excel workbook
• Build, construct, and analyze different graphs to distinguish the more or less across categories

**Lesson 1: Skip Counting by 5s and 10s**

Objectives:
- **Academic:** Identify number patterns for multiples of 5 and 10
- **Academic:** Demonstrate skip counting in increments of 5 and 10 utilizing a hundreds chart
- **Technology:** Demonstrate navigating between cells using the mouse
- **Technology:** Demonstrate changing the cell fill color using the Fill drop-down menu

**Lesson 2: Parts of 10**

Objectives:
- **Academic:** Identify and illustrate parts of 10 using a ten-frame
- **Technology:** Demonstrate typing numbers in cells and navigating between worksheets
- **Technology:** Demonstrate changing the cell fill color using the Fill drop-down menu to illustrate parts of 10

**Lesson 3: Finding the Missing Part**

Objectives:
- **Academic:** Demonstrate counting on a hundreds chart
- **Academic:** Identify the missing part of 10
- **Academic:** Complete a part-part-whole table
- **Technology:** Demonstrate typing numbers in cells and navigating between worksheets
- **Technology:** Demonstrate changing the cell fill color using the Fill drop-down menu

**Lesson 4: Graphing Data (two-day lesson)**

Objectives:
- **Academic:** Collect data in order to generate graphs and charts in Microsoft® Excel
- **Academic:** Analyze graphs to identify and compare the amount in each category
- **Academic:** Identify the similarities and differences between a bar graph and a pie chart
- **Technology:** Demonstrate how to type in cells to add data
- **Technology:** Analyze graphs to compare data

**Unit 5: Keyboarding**

In this unit, your student will explore letter and number recognition. He will be able to locate all letter and number keys. Your student will demonstrate correct posture and finger position while typing and apply proper touch-typing skills to type the home row letters.

Objectives:
- Identify the letters a–z and the numbers 0–9 on the keyboard
- Demonstrate how to type the home row keys and the rows above and below the home row
- Demonstrate how to apply proper touch typing skills to type the letters J and F and the space bar
- Demonstrate correct posture and finger position while typing

**Lesson 1: Keyboarding Numbers and Letters**

Objectives:
- Identify and type the letters A–Z on the keyboard
- Identify and type the numbers 0–9 on the keyboard

**Lesson 2: Keyboarding Rows**

Objectives:
- Identify the home row of the keyboard
Lesson 3: J, F, Space Bar
Objectives:
• Apply proper touch typing skills to type the letters J and F and the space bar
• Demonstrate correct posture and finger position while typing

Lesson 4: D and K
Objectives:
• Apply proper touch typing skills to type the letters D and K
• Demonstrate correct posture and finger position while typing

Lesson 5: S and L
Objectives:
• Apply proper touch typing skills to type the letters S and L
• Demonstrate correct posture and finger position while typing

Lesson 6: A and ;
Objectives:
• Apply proper touch typing skills to type the letter A and ; (semicolon)
• Demonstrate correct posture and finger position while typing

Lesson 7: G and H (two-day lesson)
Objectives:
• Apply proper touch typing skills to type the letters G and H
• Demonstrate correct posture and finger position while typing

Unit 6: Study Skills
In this unit, your student will be introduced to basic study skills. The lessons in this unit include listening skills, organizational skills, and other skills to help your student become a successful learner. Your student will learn how to set realistic goals and will have the opportunity to create her own goals for this course. The important skills taught in this unit apply not only to Educational Technology and Online Learning but to all academic areas, as well as to the real world.

Objectives:
• Identify ways to develop a work environment
• Identify and illustrate skills in listening and following directions
• Explain how maps demonstrate what we know about places
• Recognize the importance of managing time, technology, and activities as an online learner
• Create personal and learning goals

Lesson 1: Creating a Proper Work Environment
Objectives:
• Describe the importance of having a special work environment
• Identify ways to develop a work environment
• Identify good study habits
• Apply digital tools and resources to address a variety of tasks and problems

Lesson 2: Listening and Following Directions
Objectives:
• Recognize the importance of understanding and following directions
• Identify skills in listening and following directions
• Apply digital tools and resources to illustrate skills in listening and following directions

Lesson 3: Using Visuals
Objectives:
- Identify how maps offer ways to understand new information about places
- Explain how maps demonstrate what is known about places
- Communicate about technology using developmentally appropriate and accurate terminology
- Apply digital tools and resources to address a variety of tasks and problems
- Demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and websites

Lesson 4: Organization

Objectives:
- Learn the importance of managing your time and activities
- List steps to prepare for daily study and activities
- Communicate about technology using developmentally appropriate and accurate terminology
- Independently apply digital tools and resources to address a variety of tasks and problems
- Demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and websites

Lesson 5: Online Learning

Objectives:
- Compare and contrast online learning with a bricks-and-mortar school
- Describe how an online student may use a computer
- Apply digital tools and resources to address a variety of tasks and problems
- Communicate about technology using developmentally appropriate and accurate terminology

Lesson 6: Goal Setting (two-day lesson)

Objectives:
- Explain what goals are
- Create a personal goal and a learning goal
- Discuss technology using developmentally appropriate and accurate terminology

Unit 7: Internet Safety

In this unit, your student will learn about Internet safety. The goal of the lessons in this unit is to educate your student on how to avoid dangerous, inappropriate, or unlawful online behavior. Your student will become aware of the dangers associated with the Internet by reading stories and scenarios, learning safety tips, and completing related activities.

Objectives:
- Demonstrate an understanding of Cyberspace as a community of real people
- Identify the differences between offline and online bullying
- Discuss what a computer virus is, how a virus spreads, the damage a virus can cause, and virus prevention techniques
- Explain that there are strangers in the cyber community just as there are strangers in the physical community
- Identify and describe the basic danger of revealing personal information online

Lesson 1: Cyber Community

Objectives:
- Demonstrate an understanding of cyberspace as a community of real people
- Demonstrate an understanding that children need to have the help of an adult when exploring the cyber community

Lesson 2: Cyber Citizenship
• Explain that bullying is intentionally hurting or being mean to someone
• Identify the differences between offline and online bullying

**Lesson 3: Cybersecurity**

Objectives:
• Explore e-mail as a means of communication
• Identify when an e-mail or communication on the Internet can make a person feel uncomfortable
• Create a strategy for responding to communication that is inappropriate
• Demonstrate safe and cooperative use of technology

**Lesson 4: Personal Safety, Part 1**

Objectives:
• Describe how computers can become infected with viruses
• Discuss the concept of what a computer virus is, how a virus spreads, the damage a virus can cause, and virus prevention techniques
• Demonstrate safe and cooperative use of technology

**Lesson 5: Personal Safety, Part 2 (two-day lesson)**

Objectives:
• Explain the basic danger of revealing personal information online
• Explain that there are strangers in the cyber community, just as there are strangers in the physical community
• Apply learning by making informed choices about revealing information online
• Demonstrate safe and cooperative use of technology
EDUCATIONAL TECHNOLOGY AND ONLINE LEARNING

2
Educational Technology and Online Learning 2

In this course, students use appropriate technology tools and resources to complete projects, and solve problems. Students use software to draw, write, organize, and present information and data. Students learn listening and organizational skills and set attainable learning goals. Students become responsible users of technology as they learn about Internet safety and appropriate online behavior.

Unit 1: Introduction and Tux Paint

In this unit, your student will learn the basic tools of a draw and paint program. Your student will learn how to use the paintbrush and other drawing tools, the text tool, the shape tool, and the fill bucket. He will also be able to draw pictures and select images from a gallery.

Objectives:
- Describe the correct sounds for the ck blend, th and sh digraphs, and the r-controlled vowels er, ir, and ur
- Identify and demonstrate telling time in hour, half hour and quarter increments
- Demonstrate how to use the Paint tool, Text tool, Magic tool, and Stamp tool in Tux Paint
- Create a Tux Paint illustration using formatting options and the Custom palette
- Apply Tux Paint tools to convey meaning

Lesson 1: Words Ending with -ck (two-day lesson)

Objectives:
- Academic: Describe the correct sound for the -ck blend
- Academic: Identify and read words ending with the -ck blend
- Academic: Define and identify the rhythm in a poem
- Technology: Demonstrate how to use the Stamp tool in Tux Paint to illustrate a poem
- Technology: Demonstrate how to use the formatting options for the Paint and Text tools, to add words ending with -ck

Lesson 2: Diagraphs sh and th (two-day lesson)

Objectives:
- Academic: Identify the correct sounds for the sh and th digraphs
- Academic: Discuss and read words with the /sh/ and /th/ sounds
- Academic: Relate knowledge of the correct sounds for the sh and th digraph to identify other words that have the /sh/ and /th/ sounds
- Technology: Demonstrate how to use the Text tool and Stamp tool in Tux Paint to type and illustrate words with sh and th
- Technology: Demonstrate how to color code the /sh/ and /th/ sounds in words using the Color and Custom palettes

Lesson 3: R-Controlled Vowel Words: er, ir, ur (two-day lesson)

Objectives:
- Academic: Identify the correct sounds for the r-controlled vowels er, ir, and ur
- Academic: Demonstrate how to read words with er, ir, and ur
- Academic: Relate knowledge of the correct /er/ sound for the r-controlled vowels er, ir, and ur to identify other words with er, ir, and ur vowel patterns
- Technology: Demonstrate how to use the Stamp tool in Tux Paint to illustrate words with er, ir, and ur
- Technology: Demonstrate how to use the formatting options for the Paint and Text tools to identify the er, ir, and ur r-controlled patterns in words

Lesson 4: Telling Time (two-day lesson)

Objectives:
- Academic: Demonstrate how to tell time to the hour, half hour, and quarter hour in accurate minute increments

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Unit 2: Microsoft® Word

In this unit, your student will learn basic Microsoft Word techniques including how to type text, insert and format tables, highlight, align, and format text, insert WordArt, and use the Spelling and Grammar tool to check her work.

Objectives:
- Demonstrate how to format text in order to identify consonant blends, common and proper nouns, rhyming words, and different characters within a story dialogue
- Explain how to insert clip art and WordArt in a document to illustrate concepts
- Evaluate and revise writing using the Spelling and Grammar tool
- Demonstrate how to draw tables in various sizes to organize content
- Discuss and construct rhyming, acrostic, and haiku poems

Lesson 1: Words with Consonant Blends: -ng and -nk

Objectives:
- Academic: Identify the correct sounds for -ng and -nk consonant blends
- Academic: Demonstrate how to read words with -ng and -nk consonant blends
- Academic: Relate knowledge of -ng and -nk consonant blends to identify other words with -ng and -nk consonant blends
- Technology: Demonstrate how to insert and format tables in a document, including typing and changing the size of text, and change cell fill color using the Fill drop-down menu
- Technology: Demonstrate how to highlight consonant blends using the Highlighter drop-down menu

Lesson 2: Identifying Common and Proper Nouns

Objectives:
- Academic: Identify common and proper nouns and recognize each in a sentence
- Academic: Compose sentences using common and proper nouns
- Technology: Demonstrate how to type words and sentences in a document
- Technology: Demonstrate how to use the Shift key to type capital letters
- Technology: Demonstrate how to type common and proper nouns into the correct column within a table

Lesson 3: Rhyming Words (two-day lesson)

Objectives:
- Academic: Identify word families to create rhyming words
- Academic: Identify words that rhyme with one another
- Technology: Demonstrate how to type words and sentences within a document
- Technology: Demonstrate how to highlight word families using the Highlighter tool
- Technology: Demonstrate how to create and insert WordArt to label a word family

Lesson 4: Reading and Writing Poetry

Objectives:
- Academic: Discuss and create a poem using rhyming words
- Academic: Identify and describe rhyming words in a poem
- Technology: Demonstrate how to type words and begin separate lines in a poem using the Enter key
- Technology: Demonstrate how to properly use the Center Align button to align the poem in the center of a page
Lesson 5: Writing an Acrostic Poem

Objectives:
- Academic: Identify the structure of an acrostic poem
- Academic: Create a named acrostic poem
- Technology: Demonstrate how to select text using the select all keyboard shortcut Ctrl + A
- Technology: Demonstrate how to format text using the Font Face and Font Color drop-down menus

Lesson 6: Writing a Haiku

Objectives:
- Academic: Identify a haiku poem and describe its structure
- Academic: Compose a haiku poem
- Technology: Demonstrate how to center align text using the Center Align button
- Technology: Demonstrate how to format text, change font face, and change font size using the Font Size drop-down menu
- Technology: Demonstrate how to insert clip art using the Clip Art button in the Insert ribbon

Lesson 7: Identifying Characters in Dialogue (two-day lesson)

Objectives:
- Academic: Identify the different characters speaking within a story and a poem
- Academic: Analyze character interactions and viewpoints within a story dialogue
- Technology: Identify different characters within a story dialogue, and color code them using the Highlighter tool
- Technology: Demonstrate how to insert quotation marks when typing a sentence in a document

Lesson 8: Compare and Contrast (two-day lesson)

Objectives:
- Academic: Create, analyze, compare, and contrast still life artwork
- Academic: Describe patterns or themes found in artwork
- Technology: Demonstrate how to create a table to compare and contrast
- Technology: Demonstrate how to format text within a table
- Technology: Demonstrate inserting an image from the computer into a document using the Picture button

Lesson 9: Writing a Book Report (two-day lesson)

Objectives:
- Academic: Compose a book report
- Academic: Paraphrase text and identify the main idea and supporting details
- Technology: Demonstrate how to type words, sentences, and numbers to create a book report
- Technology: Demonstrate how to use the Spelling and Grammar tool to make corrections

Unit 3: Microsoft® PowerPoint

In this unit, your student will explore and be introduced to a variety of features in Microsoft® PowerPoint. He will learn how create slides, add and change the font color of text, use the Slide Sorter view to sequence and reorganize information, add clip art, as well as play the slideshow from the beginning.

Objectives:
- Describe how to arrange items in the correct sequence of events
- Construct a PowerPoint presentation with text, clip art, and a title slide
- Demonstrate how to use the Slide Sorter view to change the order of events

Lesson 1: Sequencing Events
Objectives:
- Academic: Identify and explain sequence words
- Technology: Demonstrate how to use the Slide Sorter View to move slides within a presentation
- Technology: Identify the main idea and create a title slide using the New Slide drop-down menu
- Technology: Demonstrate how to incorporate appropriate clip art in a presentation to illustrate the main idea
- Technology: Demonstrate how to add text to individual slides within a presentation

Lesson 2: Sequencing Events II (two-day lesson)

Objectives:
- Academic: Identify sequencing words and explain the order of events
- Technology: Demonstrate how to use the Slide Sorter View to sequence slides within a presentation
- Technology: Create a new title slide and add text to individual slides within a presentation
- Technology: Demonstrate how to incorporate appropriate clip art for a presentation
- Technology: Apply a different font color using the Font color drop-down menu to identify sequencing words

Unit 4: Microsoft® Excel

In this unit, your student will use tools and features in Microsoft® Excel in order to solve problems. She will enter text and numbers in cells, navigate between cells, navigate between worksheets, and use formatting tools within cells.

Objectives:
- Utilize Microsoft® Excel to demonstrate an understanding of compound words, prefixes, and suffixes
- Reinforce number sense skills such as addition, subtraction, fact families, and place value
- Demonstrate how to type in cells and navigate cells in Microsoft Excel
- Explain how to use features such as copy/paste, add borders, and change the cell fill color in Microsoft Excel

Lesson 1: Identifying Compound Words (two-day lesson)

Objectives:
- Academic: Identify and explain the two words that make up a compound word
- Academic: Identify compound words
- Technology: Demonstrate how to select and type in cells and navigate between worksheets
- Technology: Apply borders to cells using the Borders drop-down menu in the Home ribbon

Lesson 2: Identifying Prefixes and Suffixes

Objectives:
- Academic: Identify and understand the meaning of prefixes and suffixes
- Academic: Demonstrate how to break down words into root words, prefixes, and suffixes
- Technology: Apply and change the color of borders using the Borders drop-down menu in the Home ribbon
- Technology: Explain how to type in cells and demonstrate individual cell navigation

Lesson 3: Place Value (two-day lesson)

Objectives:
- Academic: Identify how many ones, tens, and hundreds are in a number
- Academic: Demonstrate how to write a number in standard form
- Technology: Explain how to type in cells and demonstrate individual cell navigation
• Technology: Apply cell borders using the Borders drop-down menu
• Technology: Format and apply a cell fill color using the Fill drop-down menu

**Lesson 4: Making 10 to Add 9**

Objectives:
• Academic: Demonstrate how to use ten-frames to help make groups of 10 in order to add 9
• Academic: Solve addition facts to gain fluency and demonstrate an increased sense of number awareness and relationships
• Technology: Demonstrate how use the Fill drop-down menu to change the cell fill color in order to practice addition facts and make groups of 10
• Technology: Demonstrate how to type numbers in cells

**Lesson 5: Making 10 to Add 8 (two-day lesson)**

Objectives:
• Academic: Demonstrate how to use ten-frames to help make groups of 10 in order to add 8
• Academic: Solve addition facts to gain fluency and demonstrate an increased sense of number awareness and relationships
• Technology: Demonstrate how to use the Fill drop-down menu to change the fill color of cells in order to practice addition facts and make groups of 10
• Technology: Demonstrate how to type numbers within cells

**Lesson 6: Adding with Regrouping (two-day lesson)**

Objectives:
• Academic: Explain and use math vocabulary: addend and sum
• Academic: Solve addition problems involving regrouping
• Academic: Evaluate addition strategies, including drawing the addition problem and using virtual manipulatives
• Technology: Demonstrate and evaluate how Microsoft® Excel can be helpful in checking answers
• Technology: Demonstrate how to navigate individual cells in a workbook

**Lesson 7: Thinking Addition to 10 to Subtract**

Objectives:
• Academic: Demonstrate how to subtract using the concept of addition
• Academic: Explain how addition and subtraction strategies work
• Academic: Investigate fact families in order to understand the relationship between subtraction and addition
• Technology: Demonstrate how to use the Fill drop-down menu to change the cell fill color
• Technology: Demonstrate how to type numbers within cells

**Unit 5: Keyboarding**

In this unit, your student will identify and type numbers and letters on the keyboard. Your student will demonstrate correct posture and finger position while typing in home row, as well as the rows above and below home row.

Objectives:
• Apply proper touch typing skills to type simple letters and words
• Identify home row, and the rows above and below home row
• Demonstrate proper touch typing posture and finger position while typing

**Lesson 1: Keyboarding Numbers and Letters**

Objectives:
• Identify and type the letters A–Z on the keyboard
• Identify and type the numbers 0–9 on the keyboard

**Lesson 2: Keyboarding Rows**
Objectives:
- Identify the home row of the keyboard
- Identify the rows above and below the home row
- Demonstrate how to type letters above and below the home row

Lesson 3: Keyboarding Practice Animals
Objectives:
- Identify and type the letters A–Z on the keyboard
- Identify and demonstrate how to type words relating to four animals

Lesson 4: Keyboarding Review
Objectives:
- Identify the home row keys
- Apply proper touch typing skills to type the letters J, F, D, K, and the space bar
- Demonstrate correct posture and finger position while typing

Lesson 5: Y and T (two-day lesson)
Objectives:
- Apply proper touch typing skills to type the letters Y and T
- Demonstrate proper touch typing posture and finger position while typing

Lesson 6: B and N
Objectives:
- Apply proper touch typing skills to type the letters B and N
- Demonstrate proper touch typing posture and finger position while typing

Lesson 7: U and R
Objectives:
- Apply proper touch typing skills to type the letters U and R
- Demonstrate proper touch typing posture and finger position while typing

Lesson 8: V and M
Objectives:
- Apply proper touch typing skills to type the letters V and M
- Demonstrate proper touch typing posture and finger position while typing

Lesson 9: E and I
Objectives:
- Apply proper touch typing skills to type the letters E and I
- Demonstrate proper touch typing posture and finger position while typing

Lesson 10: Review (two-day lesson)
Objectives:
- Apply proper touch typing skills to type simple words using the keys learned in Lessons 1–10
- Demonstrate proper touch typing posture and finger position while typing

Unit 6: Study Skills
In this unit, your student will be introduced to basic study skills. The lessons in this unit include listening skills, organizational skills, and other skills to help your student become a successful learner. Your student will learn how to set realistic goals and will have the opportunity to create her own goals for this course. The important skills taught in this unit apply not only to Educational Technology and Online Learning but to all academic areas, as well as to the real world.
Objectives:
- Apply knowledge of digital tools and resources to complete tasks and problem solve
- Explain how to use technology using accurate terminology
- Evaluate environments that make a good study space
- Discuss the difference between online learning and traditional learning
- Explain how organization and schedules help learning

Lesson 1: Creating a Proper Work Environment

Objectives:
- Identify characteristics of a study space
- Evaluate an environment to determine what makes it a good study space

Lesson 2: Listening and Following Directions

Objectives:
- Identify attributes of a good listener
- Explain why it is important to have good listening skills

Lesson 3: Visualization

Objectives:
- Identify how timelines and pictures make new information easier to understand
- Explain how timelines and pictures provide a way to show what is known about events

Lesson 4: Organization

Objectives:
- Explain why a schedule is an important organizational tool for learning
- Create a study schedule

Lesson 5: Online Learning

Objectives:
- Compare online learning with bricks-and-mortar schools
- Analyze feelings about new aspects of online learning

Lesson 6: Goal Setting (two-day lesson)

Objectives:
- Identify the difference between short-term and long-term goals
- Create one long-term goal and two short-term goals

Unit 7: Internet Safety

In this unit, your student will learn about Internet safety. The goal of the lessons in this unit is to educate your student on how to avoid online dangers and stay safe while using the Internet. Your student will learn about the dangers of cyberbullies, strangers, and computer viruses by reading stories, discussing a variety of scenarios, learning safety tips, and completing other related activities.

Objectives:
- Demonstrate an understanding that children need to have the help of an adult when exploring the cyber community
- Discuss appropriate communication in cyberspace
- Explain the need for caution when opening emails and and examine the concept that computers can become infected with viruses
- Demonstrate an understanding of personal and online identity and making responsible choices to ensure safety in the cyber community
- Develop procedures for responding to unsafe or inappropriate online situations

Lesson 1: Cyber Citizenship: Part 1

Objectives:
- Distinguish between the community and the cyber community
- Demonstrate an understanding that children need to have the help of an adult when exploring the cyber community
Lesson 2: Cyber Citizenship: Part 2

Objectives:
- Describe cyberspace as a community of real people
- Discuss how unkind communication in cyberspace is the same as unkind communication in the physical world
- Identify appropriate online behavior as netiquette
- Explain that children need to have the help of an adult when exploring the cyber community
- Distinguish between bullying in the community and in cyberspace

Lesson 3: Cybersecurity

Objectives:
- Describe e-mail as a means for communication
- Explain that computers can be damaged by e-mails containing computer viruses
- Explain safe procedures for using e-mail

Lesson 4: Personal Safety: Part 1

Objectives:
- Explain the need to make responsible choices to ensure personal safety when using the Internet
- Identify ways to ensure personal safety in cyberspace

Lesson 5: Personal Safety: Part 2

Objectives:
- Explain the need to make responsible choices to ensure personal safety when using the Internet
- Identify ways to ensure personal safety in cyberspace

Lesson 6: Acceptable Use Policy (two-day lesson)

Objectives:
- Create usable and age-appropriate guidelines for safe and responsible technology use
- Discuss consequences for unacceptable use
- Develop procedures for responding to unsafe or inappropriate online situations
EDUCATIONAL TECHNOLOGY
AND ONLINE LEARNING
3
Educational Technology and Online Learning 3

In this course, students use appropriate technology tools and resources to complete projects, manage information, and solve problems. Students use software to write, organize, analyze, and present information and data. Students learn listening and organizational skills and set attainable learning goals. Students become responsible users of technology as they learn about Internet safety and appropriate online behavior.

Unit 1: Keyboarding

In this unit, you will identify the home row and the rows above and below the home row. You will review the keyboarding skills learned in Lessons 6–10 of the Touch Typing Program. You will demonstrate correct posture and finger position while typing and apply proper touch typing skills to type the letters c, w, o, x, q, p, and z, the comma key, period key, and the forward slash key. Finally, you will complete a typing speed test.

Objectives:
- Identify the home row and the rows above and below the home row
- Review the keyboarding skills learned in Lessons 6–10 of the Touch Typing Program
- Demonstrate correct posture and finger position while typing
- Apply proper touch typing skills to type the letters c, w, o, x, q, p, and z, the comma key, period key, and the forward slash key

Lesson 1: Keyboarding Rows

Objectives:
- Demonstrate how to type the home row and the rows above and below the home row
- Demonstrate correct posture and finger position while typing
- Identify the home row of the keyboard
- Identify the rows above and below the home row

Lesson 2: Review Lessons 6–10 (two-day lesson)

Objectives:
- Apply proper touch typing skills and finger position to type the keys learned in Lessons 6–10
- Demonstrate how to type the home row and the rows above and below the home row
- Identify the home row of the keyboard
- Identify the rows above and below the home row

Lesson 3: Letter C and the Comma Key

Objectives:
- Apply proper touch typing skills and finger position to type the letter C and the comma key
- Demonstrate how to type the home row and the rows above and below the home row
- Identify the home row of the keyboard
- Identify the rows above and below the home row

Lesson 4: Letters W and O

Objectives:
- Apply proper touch typing skills and finger position to type the letters W and O
- Demonstrate how to type the home row and the rows above and below the home row
- Identify the home row of the keyboard
- Identify the rows above and below the home row

Lesson 5: Letter X and the Period Key

Objectives:
- Identify the home row of the keyboard
- Identify the rows above and below the home row
Demonstrate how to type the home row and the rows above and below the home row
Apply proper touch typing skills and finger position to type the letter X and the period key

Lesson 6: Letters Q and P
Objectives:
- Identify the home row of the keyboard
- Identify the rows above and below the home row
- Demonstrate how to type the home row and the rows above and below the home row
- Apply proper touch typing skills and finger position to type the letters Q and P

Lesson 7: Letter Z and the Forward Slash Key
Objectives:
- Identify the home row of the keyboard
- Identify the rows above and below the home row
- Demonstrate how to type the home row and the rows above and below the home row
- Apply proper touch typing skills and finger position to type the letter Z and the forward slash key

Lesson 8: Review (two-day lesson)
Objectives:
- Identify the home row of the keyboard
- Identify the rows above and below the home row
- Demonstrate how to type the home row and the rows above and below the home row
- Apply proper touch typing skills and finger position to type simple words

Unit 2: Microsoft® Word
In this unit, your student will learn basic Microsoft® Word tools to organize and communicate information in language arts. He will also learn how to type and format words and sentences, insert and format tables, use the Spelling and Grammar tool, and insert clip art and WordArt. For the portfolio assessment, he will research pollution, and the effects on the environment. He will learn how to reduce air, water, and land pollution. He will then organize the information using the outline view in Microsoft Word. To enhance his learning, he will watch Discovery Education™ streaming movies, eBooks, and BrainPOP® movies.
Objectives:
- Demonstrate how to draw and format tables in various sizes to organize content
- Demonstrate how to type and format text in order to identify consonant blends, contractions, vocabulary words, adjectives, adverbs, multiple meaning words, and story elements
- Evaluate and revise writing using the Spelling and Grammar tool
- Explain how to insert clip art and WordArt to illustrate concepts and visually enhance a document
- Utilize the outline view to organize research on how to reduce air, water, and land pollution

Lesson 1: Consonant Blends
Objectives:
- Academic: Demonstrate how to read and write words with the beginning consonant blends cr-, fr-, pl-, pr-, and sm-
- Technology: Use the Enter key to start a new line of text in a document
- Technology: Demonstrate how to insert a table in a document to sort and organize words
- Technology: Demonstrate how to highlight consonant blends using the Highlighter drop-down menu

Lesson 2: Contractions
Objectives:
• Academic: Demonstrate how to read and write contractions
• Academic: Evaluate and revise writing using the Spelling and Grammar tool
• Technology: Use the Enter key to start a new line of text in a document
• Technology: Demonstrate how to insert a table in a document to organize words
• Technology: Demonstrate how to format text by changing the font face, font size, and font style to bold, italics, or underline in order to identify contractions

Lesson 3: Reference Tools
Objectives:
• Academic: Use an online dictionary to define words
• Technology: Use the Research button to access the online dictionary
• Technology: Minimize and maximize a window to organize documents

Lesson 4: Multiple-Meaning Words
Objectives:
• Academic: Clarify the meaning of multiple-meaning words
• Academic: Use the words that come before and after an unknown word in a sentence to understand its meaning
• Technology: Use the Enter key to start a new line of text in a document
• Technology: Demonstrate how to type sentences with multiple-meaning words within a document
• Technology: Change the font color of clue words in a sentence that help you figure out the correct meaning of multiple meaning words

Lesson 5: Connecting Adjectives to the Real World
Objectives:
• Academic: Use adjectives in sentences to improve descriptive writing skills
• Technology: Use the Enter key to start a new line of text in a document
• Technology: Demonstrate how to type sentences with adjectives within a document
• Technology: Demonstrate how to change the font face, font size, and font style in order to bold, italicize, or underline adjectives
• Technology: Insert clip art in a document and write sentences with adjectives describing the picture

Lesson 6: Adverbs
Objectives:
• Academic: Use adverbs in sentences to improve writing skills
• Technology: Demonstrate how to properly use the Center Align button to align a title in the center of a page
• Technology: Demonstrate how to type words and sentences within a document and wrap text around a picture
• Technology: Demonstrate how to change the font face, font size, and font style to bold, italicize, or underline adverbs
• Technology: Insert clip art in a document and write sentences with adverbs describing the picture

Lesson 7: Choose the Best Title - Main Idea
Objectives:
• Academic: Create a title for a story based on the main idea
• Technology: Type words and sentences within a document to explain how you chose a new title for the story
• Technology: Demonstrate how to use the keyboard shortcuts Ctrl + C and Ctrl + V to copy and paste the best titles for stories from one document to another document quickly
• Technology: Demonstrate how to create and insert WordArt for a title of a story
Lesson 8: Pictures Supporting Stories

Objectives:
- Academic: Explain how illustrations contribute to a story
- Technology: Demonstrate how to type words and sentences within a document
- Technology: Demonstrate how to change the font face, font size, and font style to bold, italics, or underline to draw attention to important ideas
- Technology: Demonstrate how to properly use the Left, Right, or Center Align buttons to align text on a page

Lesson 9: Characters Influencing a Story (two-day lesson)

Objectives:
- Academic: Describe how a character's actions in a story contribute to the sequence of events
- Technology: Demonstrate how to format text, change font face, and change font size to draw attention to important text

Lesson 10: Compare and Contrast (two-day lesson)

Objectives:
- Academic: Compare and contrast the plots of two stories written by the same author
- Technology: Demonstrate how to format text using the Bold button in the Home Ribbon
- Technology: Demonstrate how properly use the Center align button

Lesson 11: Pollution (two-day lesson)

Objectives:
- Academic: Research information on pollution to identify the harmful effects on the environment and how to reduce air, water, and land pollution
- Academic: Organize information into an outline with headings and subtopics
- Technology: Use the outline view to organize research on actions to reduce pollution

Unit 3: Microsoft® PowerPoint

In this unit, you will explore a variety of features in Microsoft® PowerPoint to improve the way you communicate information. You will learn how to insert a text box, tables, shapes, WordArt, and clip art on a slide. You will use the Slide Sorter view to move and insert slides within a presentation. For your portfolio, you will research natural disasters and action plans and create a PowerPoint presentation of the information that you find.

Objectives:
- Research natural disasters and create a presentation detailing an action plan
- Utilize and insert clip art, WordArt, and shapes in a presentation to define quadrilaterals and illustrate a natural disaster
- Demonstrate how to use the Slide Sorter view to change the order of slides and to add slides to a presentation
- Demonstrate how to draw text boxes and tables and format the cell fill color to show comparisons
- Experiment and complete math problems using the annotation features within a presentation

Lesson 1: Ordering Numbers

Objectives:
- Academic: Demonstrate how to order three-digit numbers in standard and expanded form
- Technology: Demonstrate how to insert and format a text box within slides in a presentation in order to compare numbers
- Technology: Use the Slide Sorter view to change the order of the slides to show your understanding of ordering numbers
Lesson 2: Adding Three-Digit Numbers

Objectives:
- Academic: Demonstrate how to add three-digit numbers
- Technology: Demonstrate how to use the Annotation tool in Slide Show view
- Technology: Demonstrate how to save a final copy of the annotated presentation that shows how you solved the math problem

Lesson 3: Fractions (two-day lesson)

Objectives:
- Academic: Identify the numerator and denominator of fractions
- Academic: Utilize pictures in order to compare fractions
- Technology: Demonstrate how to insert and add a table using the Table drop-down menu to organize information on fractions
- Technology: Demonstrate knowledge of comparing fractions by using the Shape Fill drop-down menu to change the cell fill color within a table

Lesson 4: Quadrilaterals

Objectives:
- Academic: Identify and illustrate examples of quadrilaterals, such as a rectangle, square, or rhombus
- Technology: Demonstrate how to insert and format a text box
- Technology: Demonstrate how to insert and format shapes

Lesson 5: Scientific Method (two-day lesson)

Objectives:
- Academic: Explain and sequence the steps of the scientific method
- Academic: Plan and conduct an experiment using the scientific method
- Technology: Explain how to insert WordArt to illustrate concepts in a presentation
- Technology: Demonstrate how to type text within a table to display collected information

Lesson 6: Natural Disasters (two-day lesson)

Objectives:
- Academic: Describe different types of natural disasters and their impact on the environment and society
- Academic: Create an action plan by researching information about a variety of natural disasters to determine societal and environmental impacts
- Technology: Create a Microsoft® PowerPoint presentation that describes an action plan to respond to natural disasters
- Technology: Demonstrate how to insert a new slide and add a text box to add information about natural disasters
- Technology: Demonstrate how to insert WordArt and clip art to illustrate concepts about natural disasters

Unit 4: Microsoft® Excel

In this unit, your student will use tools and features in Microsoft Excel to solve math problems. He will type numbers in cells, insert formulas, make tables, create bar graphs, and use formatting tools to visually present math concepts and analyze data.

Objectives:
- Demonstrate how to create a table with rows and columns to organize content and compare three-digit numbers
- Explain, illustrate, and interpret data in a bar graph
- Apply addition and subtraction concepts to solve one- and two-step problems in order to determine “how many more” and “how many less”
- Demonstrate how to insert a formula to calculate area, perimeter, and convert liquid measurements of gallons, quarts, pints, and cups
- Apply a fill color to rows and columns and borders to tables to emphasize specific information
Lesson 1: Place Value

Objectives:
- Academic: Demonstrate how to compare three-digit numbers from least to greatest
- Academic: Demonstrate how to write a number in standard and expanded form
- Academic: Explain that a three-digit number represents hundreds, tens, and ones
- Technology: Demonstrate how to type numbers in a cell and format the cells to appear in a table using the Borders drop-down menu
- Technology: Demonstrate how to apply a cell fill color using the Fill drop-down menu to show which number is greater

Lesson 2: Multiplication and Repeated Addition (two-day lesson)

Objectives:
- Academic: Solve multiplication and addition problems
- Academic: Identify the relationship between multiplication and repeated addition
- Technology: Demonstrate how to use the AutoSum function to find the sum of an addition problem
- Technology: Demonstrate how to create and type formulas in Microsoft® Excel to solve multiplication problems
- Technology: Explain how to create a table and type data into cells

Lesson 3: Commutative Property

Objectives:
- Academic: Demonstrate how to add three addends using the commutative property
- Academic: Solve a word problem by adding three addends together
- Technology: Demonstrate how to create and type a formula to solve an addition problem
- Technology: Utilize the AutoSum and AutoFill features to add and apply an addition formula to other cells in the workbook

Lesson 4: How Many More, How Many Less

Objectives:
- Academic: Apply subtraction concepts to solve one- and two-step problems to determine “how many more” or “how many less”
- Academic: Apply knowledge of bar graphs to interpret data
- Technology: Identify and label parts of a bar graph in order understand the data
- Technology: Utilize the subtraction formula in Microsoft® Excel to solve problems

Lesson 5: Measuring Liquids: Capacity

Objectives:
- Academic: Apply multiplication concepts in order to convert units of capacity
- Academic: Identify units of capacity: gallons, quarts, pints, and cups
- Technology: Demonstrate how to type and apply a multiplication formula to convert liquid measurements

Lesson 6: Area

Objectives:
- Academic: Apply addition concepts to find the area of a rectangle by adding the square units
- Academic: Demonstrate how to calculate the area of a rectangle by multiplying the length and width
- Technology: Demonstrate how to type and apply a multiplication formula in a spreadsheet to calculate area of a rectangle
- Technology: Add data to a table to organize length and width measurements
Lesson 7: Perimeter

Objectives:
• Academic: Apply addition concepts to calculate the perimeter of a shape when given the length of sides
• Academic: Demonstrate how to find the length of an unknown side when given the perimeter of a shape
• Technology: Use Geoboard software to design shapes and calculate perimeter
• Technology: Demonstrate how to type and apply an addition formula in a Microsoft® Excel spreadsheet to calculate perimeter
• Technology: Add data to a table to organize the lengths of each side of a shape

Lesson 8: Sorting Data (two-day lesson)

Objectives:
• Academic: Describe how to interpret data in a bar graph
• Technology: Demonstrate how to order numbers from least to greatest using the Sort button
• Technology: Demonstrate how to create a bar graph using provided data and label it accordingly

Unit 5: Study Skills

In this unit, you will learn study skills to help you succeed in school and beyond. You will create a study schedule to organize schoolwork, use note taking to make sense of information, use visual organizers to help improve your writing and organize information, and create short and long-term goals for learning. You will watch Discovery Education™ streaming movies on listening skills, organizational skills, and other study skills that will help you become a successful learner. The important skills taught in this unit apply not only to Educational Technology and Online Learning but to all academic areas, as well as to the real world.

Objectives:
• Describe the qualities of an active listener
• Demonstrate how to create a study schedule to organize schoolwork
• Demonstrate how to use note taking strategies to make sense of information
• Utilize visual organizers to improve writing and organize information
• Demonstrate how to create short- and long-term goals for learning

Lesson 1: Listening Skills

Objectives:
• Explain the importance of active listening
• Describe characteristics of an active listener

Lesson 2: Organization and Time Management

Objectives:
• Explain the importance of being organized and having a study schedule
• Create a study schedule

Lesson 3: Note Taking

Objectives:
• Use note-taking strategies to make sense of information

Lesson 4: Using Timelines

Objectives:
• Use visual organizers to improve writing and organize information
• Use a CE-created Timeline to analyze information provided

Lesson 5: Online Learning

Objectives:
• Compare online and bricks-and-mortar schools
• Describe the benefits and challenges of being an online learner
Lesson 6: Goal Setting (two-day lesson)

Objectives:
- Distinguish between short- and long-term goals
- Set short- and long-term goals for learning

Unit 6: Internet Safety

In this unit, you will learn about Internet safety. You will learn to responsibly use technology as a tool to research, organize, evaluate, and communicate information. You will distinguish between appropriate, or safe, and inappropriate, or not safe, websites and privacy, or personal, issues to keep you safe while using the Internet. For the portfolio assignment, you will create rules for safe and responsible technology use in the cyber community in a Microsoft® Word document.

Objectives:
- Demonstrate an understanding of rules to follow to stay safe when online
- Describe how personal information can be made public when taking part in online activities that seem safe
- Describe responsible choices to be sure of personal safety when using the Internet
- Distinguish between appropriate and inappropriate websites

Lesson 1: Cyber Community

Objectives:
- Demonstrate an understanding of rules to follow to stay safe when online
- Distinguish between the physical community and the cyber community
- Describe the concept of cyber citizenship

Lesson 2: Citizenship and Safety

Objectives:
- Distinguish between appropriate and inappropriate websites
- Demonstrate an understanding of rules to follow to stay safe when online
- Explain the concept of cyber citizenship

Lesson 3: Cyberbullying

Objectives:
- Compare and contrast bullying in the physical community to cyberbullying
- Describe kindness and how it relates to Internet behavior
- Demonstrate how to use appropriate resources if confronted with an online bully
- Explain how netiquette relates to cyber citizenship

Lesson 4: Cybersecurity and E-mail Attachments

Objectives:
- Describe how computers can be damaged by e-mails containing computer viruses
- Demonstrate prevention techniques to avoid computer viruses
- Explain safe procedures for using e-mail

Lesson 5: Intellectual Property: Part 1

Objectives:
- Describe different types of media that are intellectual property, such as writings, music, videos, and computer games
- Explain how property on the Internet can be owned just like physical property
- Demonstrate an understanding of the copyright laws that protect intellectual property

• Explain the meaning of the copyright symbol
• Demonstrate use of the copyright symbol to indicates one’s ownership of intellectual property
• Create a project to demonstrate and share knowledge about use of the copyright symbol

**Lesson 7: Personal Safety: Part 1**

Objectives:
• Demonstrate an understanding of the term identity
• Compare how an identity is formed offline to how it is formed online
• Demonstrate why a positive online identity is important
• Explain how a person who communicates online can demonstrate his or her identity

**Lesson 8: Personal Safety: Part 2**

Objectives:
• Explain the terms tag, post, share, blog, upload, download, and social network as they apply to online activities
• Describe how personal information can be made public when taking part in online activities that seem safe
• Demonstrate techniques to maintain personal information privacy while taking part in online activities

**Lesson 9: Safe Interaction (two-day lesson)**

Objectives:
• Demonstrate making responsible choices to be sure of personal safety when using the Internet
• Create a Microsoft® PowerPoint presentation that lists safety tips when using the Internet and appropriate websites for children
EDUCATIONAL TECHNOLOGY AND ONLINE LEARNING
**Educational Technology and Online Learning 4**

In this course, students use appropriate technology tools and resources to complete projects, manage information, and solve problems. Students use software to write, organize, analyze, and present information and data. Students learn listening and organizational skills and set attainable learning goals. Students become responsible users of technology as they learn about internet safety, appropriate online behavior, and effective search and website evaluation strategies.

**Unit 1: Keyboarding**

While learning to type, speed and accuracy are crucial. During this unit, you will learn about proper finger positioning, correct posture, and proper touch techniques to enhance your typing abilities. You will read about the history of keyboarding, new types of keyboards, and a typing competition. You will learn about the components of a computer and digital input, digital output, and processing. You will demonstrate your typing abilities with a typing test during the last lesson of the unit.

Objectives:
- Develop speed and accuracy while copying provided text
- Apply proper touch typing techniques to enter words, phrases, and numbers
- Demonstrate correct posture and finger position while typing

**Lesson 1: Keyboarding Review (two-day lesson)**

Objectives:
- Apply proper touch typing techniques to enter words and phrases
- Demonstrate correct finger positions while typing
- Understand digital input, digital output, and processing

**Lesson 2: Speed and Accuracy: Lesson 1**

Objectives:
- Develop speed and accuracy while copying provided text
- Apply proper touch typing techniques to enter words, phrases, and numbers
- Demonstrate correct finger positions while typing

**Lesson 3: Speed and Accuracy: Lesson 2**

Objectives:
- Develop speed and accuracy while copying provided text
- Apply proper touch typing techniques to enter words, phrases, and numbers
- Demonstrate correct finger positions while typing

**Lesson 4: Speed and Accuracy: Lesson 3**

Objectives:
- Develop speed and accuracy while copying provided text
- Apply proper touch typing techniques to enter words, phrases, and numbers
- Demonstrate correct finger positions while typing

**Lesson 5: Speed and Accuracy: Lesson 4**

Objectives:
- Develop speed and accuracy while copying provided text
- Apply proper touch typing techniques to enter words, phrases, and numbers
- Demonstrate correct typing posture and finger positions while typing

**Lesson 6: Speed and Accuracy: Lesson 5**

Objectives:
- Develop speed and accuracy while copying provided text
- Apply proper touch typing techniques to enter words, phrases, and numbers
- Demonstrate correct typing posture and finger positions while typing
Lesson 7: Speed and Accuracy: Lesson 6

Objectives:
- Develop speed and accuracy while copying provided text
- Apply proper touch typing techniques to enter words, phrases, and numbers
- Demonstrate correct typing posture and finger positions while typing

Lesson 8: Speed and Accuracy: Lesson 7

Objectives:
- Develop speed and accuracy while copying provided text
- Apply proper touch typing techniques to enter words, phrases, and numbers
- Demonstrate correct typing posture and finger positions while typing

Lesson 9: Keyboarding Review 2 (two-day lesson)

Objectives:
- Develop speed and accuracy while copying provided text
- Apply proper touch typing techniques to enter words, phrases, and numbers
- Demonstrate correct typing posture and finger positions while typing

Unit 2: Microsoft® Word

In this unit, you will be given multiple opportunities to polish your word processing skills. You will learn new skills, which include: inserting tables, adapting the font style, size, and color, changing the text alignment, and inserting SmartArt. While using Microsoft® Word, you will learn about figurative language, parts of speech, inferring, folktales, synonyms, and point of view. You will create stories from two different points of view. You will be provided visuals to enhance your learning through BrainPOP® and Discovery Education™ streaming movies.

Objectives:
- Create typed pieces of writing to show understanding of figurative language, making inferences, point of view, and synonyms
- Demonstrate the ability to insert SmartArt, WordArt, and clip art to visually enhance each piece
- Construct text boxes and tables to arrange information
- Design each piece of writing using text alignment and various font choices

Lesson 1: There, Their, They're To, Too, Two (two-day lesson)

Objectives:
- Academic: Compose and define a list of homophones
- Technology: Develop a digital homophone book using homophones correctly in sentences
- Technology: Demonstrate formatting the font size, font face, and font color using the Font Size, Font Face, and Font Color drop-down menus
- Technology: Arrange and highlight text using the text alignment buttons and the Highlighter tool in the Home ribbon
- Technology: Select and insert clip art to illustrate homophones

Lesson 2: Nouns and Pronouns

Objectives:
- Academic: Identify and categorize nouns and pronouns
- Academic: Compose a piece of writing using nouns and pronouns correctly in sentences
- Technology: Demonstrate typing, and indent a paragraph using the Tab key, and Indentation buttons
- Technology: Format and adjust line spacing within the Paragraph menu
- Technology: Apply an underline to nouns and pronouns using the Underline button

Lesson 3: Synonyms

Objectives:
• Academic: Select words with similar but not identical meanings using the Microsoft Word thesaurus
• Academic: Identify synonyms for common words
• Technology: Formulate a table with multiple rows and columns
• Technology: Identify, select, and type synonyms in the correct cells of a table using the thesaurus in Microsoft Word
• Technology: Demonstrate formatting text alignment using buttons in Home ribbon

Lesson 4: Making Inferences (two-day lesson)

Objectives:
• Academic: Analyze clues from text to make inferences
• Technology: Insert SmartArt graphics into a document
• Technology: Organize text clues and inferences in SmartArt graphics
• Technology: Demonstrate the skill of dragging and dropping text boxes

Lesson 5: Points of View (two-day lesson)

Objectives:
• Academic: Generate two pieces of writing correctly implementing first-person and third-person point of view
• Academic: Identify points of view within a text
• Technology: Demonstrate formatting the font size and font face using the Font Size and Font Face drop-down menus
• Technology: Demonstrate using the Spelling and Grammar tool to correct spelling errors in document

Lesson 6: Vivid Language: Similes

Objectives:
• Academic: Identify similes within poems
• Academic: Interpret and create similes
• Technology: Create and insert a table with multiple rows and columns
• Technology: Demonstrate formatting a table by inserting new rows

Lesson 7: Vivid Language: Metaphors

Objectives:
• Academic: Analyze metaphors to understand the underlying meaning
• Academic: Generate original metaphors
• Academic: Differentiate between similes and metaphors
• Technology: Illustrate metaphors using WordArt and clip art

Lesson 8: Summarizing Poetry (two-day lesson)

Objectives:
• Academic: Construct a summary of a poem
• Technology: Demonstrate typing and indenting using the Tab key
• Technology: Examine and correct spelling errors using the Spelling and Grammar tool

Lesson 9: Folktales (two-day lesson)

Objectives:
• Academic: Describe and create a folktale
• Academic: Understand that all folktales have a central theme or message
• Technology: Design a graphic organizer by inserting text boxes from the Insert ribbon
• Technology: Demonstrate knowledge of Microsoft Word formatting: font color, font style, font size, Spelling and Grammar tool, and Tab key

Unit 3: Microsoft® PowerPoint

In this unit, you will have the opportunity to explore Microsoft® PowerPoint. You will insert action buttons, slide designs, slide themes, and slide transitions. You will demonstrate your knowledge of story elements, compare-and-contrast story structure, and life cycles through...
the creation of presentations. You will learn about life cycles through a Discovery Education™ exploration. After completing the exploration, you will design a presentation on life cycles.

Objectives:
- Create presentations demonstrating an understanding of story elements, compare/contrast structure, and life cycles
- Demonstrate the ability to insert action buttons, clip art, and SmartArt from the Insert ribbon
- Design a presentation with slide transitions from the Transitions ribbon
- Formulate a visually appealing presentation by formatting the font face, font size, and font color

Lesson 1: Story Map (two-day lesson)

Objectives:
- Academic: Understand story elements and identify them within a story
- Technology: Formulate a presentation about story elements
- Technology: Demonstrate selecting and inserting clip art and action buttons from the Insert ribbon
- Technology: Apply a theme using the Design ribbon to enhance the presentation

Lesson 2: Compare and Contrast (two-day lesson)

Objectives:
- Academic: Compare and contrast concepts from text
- Technology: Construct a presentation comparing and contrasting alternative forms of energy and animals
- Technology: Implement and apply slide transitions using the Transition to This Slide drop-down menu in the Transitions ribbon
- Technology: Demonstrate selecting and inserting clip art and action buttons in the Insert ribbon

Lesson 3: Life Cycles (two-day lesson)

Objectives:
- Academic: Analyze the life cycle of a plant or animal
- Academic: Evaluate the ability to create a presentation using a rubric
- Technology: Develop a presentation analyzing the life cycle of a plant or animal
- Technology: Demonstrate the ability to apply slide transitions and slide designs to a presentation
- Technology: Insert hyperlinks and clip art in a presentation to create an interactive life cycle

Unit 4: Microsoft® Excel

During the Microsoft® Excel unit, you will learn about using the AutoSum feature to add multiple numbers, insert a formula to round digits, generate line graphs using data, and enter text into specific cells. You will demonstrate the ability to add, subtract, multiply, divide, and calculate data landmarks. You will establish a virtual lemonade stand and track your net profits. You will create a line graph to show the growth or decline of your business. You will use the Lemonade Stand Game, and learn about concepts by watching BrainPOP®, and Discovery Education™ videos within lessons.

Objectives:
- Interpret data and organize it within the cells of a workbook
- Construct line graphs using data
- Solve mathematical equations by embedding formulas within the workbook
- Analyze, sort, and determine the meaning of word parts (prefixes, suffixes, and root words)

Lesson 1: Word Problems: Addition and Subtraction

Objectives:
- Academic: Recognize key words to solve addition and subtraction word problems
Lesson 2: Word Problems: Multiplication and Division

Objectives:
- Academic: Recognize key words to solve multiplication and division word problems
- Technology: Calculate products and quotients using a formula
- Technology: Demonstrate formatting font color of mathematical key words using the Font Color drop-down menu in the Mini toolbar
- Technology: Insert borders around the products and quotients from the Border drop-down menu in the Home ribbon

Lesson 3: Rounding

Objectives:
- Academic: Identify and round numbers to the ones place
- Technology: Insert and apply the ROUND function to round numbers to the nearest ones place
- Technology: Apply the AutoSum feature to add multiple numbers together
- Technology: Adjust the cell alignment using the Center Align button in the Home ribbon

Lesson 4: Graphing Expenses (two-day lesson)

Objectives:
- Academic: Analyze net profits from a lemonade stand over a 5 day period
- Technology: Organize data into cells of a workbook
- Technology: Formulate a line graph based on lemonade net profits and cups sold

Lesson 5: Investigating Bar Graphs (two-day lesson)

Objectives:
- Academic: Calculate the mean, median, and mode of a set of data
- Technology: Construct a bar graph using the Bar drop-down menu in the Insert ribbon
- Technology: Demonstrate formatting by inserting titles and labels for the bar graph

Lesson 6: Root Words from Science

Objectives:
- Academic: Identify and interpret the meaning of words with prefixes and suffixes
- Technology: Segregate and arrange word parts (prefixes, suffixes, and root/base words) into individual cells of a workbook
- Technology: Demonstrate formatting the font size, font face, and font color of word parts (prefixes, suffixes, and root/base words) using the Font Size, Font Face, and Font Color drop-down menus

Unit 5: Study Skills

In this unit, you will learn about and develop important study skills. You will learn about the characteristics of an active listener. You will watch a Discovery Education™ streaming movie about the consequences of not being an active listener. You will also learn about organizing a study schedule, setting short- and long-term goals, and generating a note-taking graphic organizer. Using Microsoft® Word, you will create a tips poster on how to be an active listener. You will use Microsoft PowerPoint to create a presentation comparing online learning to bricks-and-mortar schooling.

Objectives:
Lesson 1: Listening Skills

Objectives:
- Identify the importance and attributes of active listening
- Create a goal for active listening
- Generate a table stating goals for active listening in different settings

Lesson 2: Organization and Time Management

Objectives:
- Understand the importance of being organized and having a study schedule
- Create a study schedule that incorporates flexibility

Lesson 3: Note Taking and Summarizing

Objectives:
- Utilize note taking strategies to learn, think about, and remember important information
- Adapt a note taking template that can be adjusted for various assignments

Lesson 4: Using Graphic Organizers

Objectives:
- Evaluate and validate information on the World Wide Web
- Collect information in a graphic organizer

Lesson 5: Online Learning (two-day lesson)

Objectives:
- Review the similarities and differences of online learning and bricks-and-mortar learning
- Create a presentation that describes the synthesis of a new school combining the advantages of both online learning and bricks-and-mortar learning

Lesson 6: Goal Setting

Objectives:
- Distinguish between short- and long-term goals
- Develop short- and long-term academic goals
- Generate a spreadsheet organizer to track progress toward accomplishing goals

Unit 6: Internet Safety

It is a good idea to begin practicing online safety. In this unit, you will learn about how to be smart and safe when you are online. You will learn about netiquette and its importance in the prevention of cyberbullying. You will learn about how to keep your personal information anonymous, or unknown, so you can be safe from online predators. You will write a story in Microsoft® Word highlighting the importance of copyrighted material and proper use of copyrighted material. You will be able to share this important cyberspace safety information with your friends and family to help safeguard against online threats.

Objectives:
- Compare and contrast the physical world with cyberspace
- Describe copyright laws and the rights created by the laws
- Identify the types of personal information that should never be shared in cyberspace
- Demonstrate the appropriate actions to follow when faced with cyberbullying and/or an online predator
• Create a plan of action when faced with inappropriate web content

Lesson 1: Netiquette in the Cyber Community

Objectives:
• Describe cyberspace as a community of real people
• Compare characteristics of communication in the physical world with communication in cyberspace
• Demonstrate an understanding that unkind communication in cyberspace is the same as unkind communication in the physical world
• Demonstrate how to respond appropriately if faced with unkind communication in cyberspace
• Create a table comparing communication in the physical world with cyberspace

Lesson 2: Cyber Predator Awareness

Objectives:
• Define and discuss the terms predator, prey, inappropriate, and anonymous as they relate to online communication
• Identify and describe basic components of a predator's grooming process
• Create examples of safe responses and/or actions for each step of the grooming process

Lesson 3: Cyberbullying (two-day lesson)

Objectives:
• Identify general key attributes of kindness and being considerate online
• Identify and describe the key attributes of bullying
• Compare and contrast bullying in the physical community and the cyber community
• Analyze the relationship between netiquette and cybercitizenship
• Identify and utilize appropriate resources if confronted with an online bully

Lesson 4: Malicious Code in E-mail

Objectives:
• Identify and describe the security risks associated with e-mail
• Define and discuss the term malicious code and other vocabulary related to cybersecurity risks

Lesson 5: Spam, Scams, and Phishing

Objectives:
• Describe the basic way phishing, spam, and scam e-mails solicit personal information
• Explain age-appropriate ways to deal with phishing, spam, and scam e-mails

Lesson 6: Goldy Locks and IP (two-day lesson)

Objectives:
• Explain the rights of intellectual property on the Internet and the rights copyright provide for creative material
• Explain the potential consequences associated with plagiarism and other forms of intellectual property theft
• Create a story to entertain and teach about copyright in Microsoft® Word

Lesson 7: Keeping it Personal

Objectives:
• Discuss that posted personal information on the Internet is public
• Discuss why it can be unsafe to post personal information on the Internet
• Describe why it is necessary to inform an adult before filling out information online

Appendix A.2.g Educational Technology Course Guides

Educational Technology 4
Lesson 8: Inappropriate Websites

Objectives:
- Explain the concept of the Internet as an online community comparable to the physical community
- Discuss the concept that there are inappropriate places online
- Demonstrate an understanding of how to avoid or exit inappropriate places
- Discuss family policy on inappropriate website access

Lesson 9: Acceptable Use Policy

Objectives:
- Demonstrate an understanding of acceptable use, identify the consequences of unacceptable use, and describe procedures for responding to unsafe or inappropriate online situations
EDUCATIONAL TECHNOLOGY
AND ONLINE LEARNING
5
Educational Technology and Online Learning 5

In this course, students use appropriate technology tools and resources to complete projects, manage information, and solve problems. Students use software to write, organize, analyze, and present information and data. Students learn listening and organizational skills and set attainable learning goals. Students become responsible communicators and users of technology as they learn about intellectual property, Internet safety, and effective search and evaluation strategies.

Unit 1: Keyboarding

In this unit, you will identify and type numbers and letters on the keyboard and type words and phrases. You will demonstrate correct posture and finger position while typing the letters and symbols, and you will apply proper touch typing skills while practicing the home row and the rows above and below the home row.

Objectives:
- Practice posture, finger position, and speed to improve typing fluency
- Apply proper touch typing techniques to enter numbers, words, and phrases
- Develop speed and accuracy while copying provided text

Lesson 1: Speed and Accuracy: Lesson 8

Objectives:
- Demonstrate proper touch typing posture and finger position while typing
- Apply proper touch typing techniques to type sentences from a text
- Develop speed and accuracy while copying provided text

Lesson 2: Speed and Accuracy: Lesson 9

Objectives:
- Demonstrate proper touch typing posture and finger position while typing sentences
- Apply proper touch typing techniques to type text from a story
- Develop speed and accuracy while copying provided text

Lesson 3: Speed and Accuracy: Lesson 10

Objectives:
- Demonstrate proper touch typing posture and finger position while typing sentences from stories
- Apply proper touch typing techniques to type sentences from stories
- Develop speed and accuracy while copying provided text

Lesson 4: Speed and Accuracy: Lesson 11

Objectives:
- Demonstrate proper touch typing posture and finger position while typing sentences from stories
- Apply proper touch typing techniques to type sentences from stories
- Develop speed and accuracy while copying provided text

Lesson 5: Speed and Accuracy: Lesson 12

Objectives:
- Demonstrate proper touch typing posture and finger position while typing
- Apply proper touch typing techniques to type sentences from stories and random text
- Develop speed and accuracy while copying provided text

Lesson 6: Speed and Accuracy: Lesson 13

Objectives:
- Demonstrate proper touch typing posture and finger position while typing
- Apply proper touch typing techniques to type words and phrases
- Develop speed and accuracy while copying provided text
Lesson 7: Speed and Accuracy: Lesson 14

Objectives:
• Demonstrate proper touch typing posture and finger position while typing
• Apply proper touch typing techniques to type sentences from a story
• Develop speed and accuracy while copying provided text

Lesson 8: Keyboarding Review (two-day lesson)

Objectives:
• Demonstrate proper touch typing posture and finger position while typing
• Apply proper touch typing techniques to type numbers, words, and phrases
• Develop speed and accuracy while copying a paragraph

Unit 2: Microsoft® Word

In this unit, you will explore features of Microsoft® Word. You will learn how to correct spelling errors, and decode words using the Spelling and Grammar and Highlighter tools. While reading, you will identify the main idea of the text and relevant supporting details in order to construct an outline using Outline View. You will also interpret figurative language in poetry, and continue practicing text alignment to construct a poem of your own. Mathematically, you will apply your knowledge of coordinate grids by inserting a table and text boxes to show an ordered pair.

Objectives:
• Produce and manipulate tables to show knowledge of fact and opinion and distinguish between words containing Greek roots
• Demonstrate knowledge of subjects and predicates to compare and contrast the two using the Highlighter tool
• Plan, prepare, and generate a friendly letter to practice formatting, typing, and checking spelling and grammar
• Outline information within an article to demonstrate understanding of common text construction
• Compose original sentences and poetry to show knowledge of English language conventions

Lesson 1: Fact Versus Opinion

Objectives:
• Academic: Identify and distinguish the differences between facts and opinions in text
• Technology: Demonstrate selecting text in a document using the mouse
• Technology: Demonstrate using keyboard shortcuts, Ctrl+ C and Ctrl + V in order to copy and paste text in a document and table

Lesson 2: Greek Roots

Objectives:
• Academic: Identify and define the Greek roots photo-, geo-, demo-, and -ology used in context
• Academic: Examine words with Greek roots to compare meanings of words with common roots
• Technology: Demonstrate how to type words and sentences and move to the next line using the Enter key
• Technology: Incorporate and format a table with the correct number of rows and columns using the Table drop-down menu
• Technology: Illustrate Greek roots in context using different colors within the Highlighter drop-down menu

Lesson 3: Subjects and Predicates

Objectives:
• Academic: Identify subjects and predicates within existing sentences
• Academic: Create original sentences containing both a simple subject and predicate

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Lesson 4: Verb Tenses

Objectives:
- Academic: Identify the difference between past, present, and future tense
- Academic: Modify inappropriate use of verb tense within existing sentences
- Technology: Format the font color of text using the Font Color dropdown menu to identify incorrect verb tenses
- Technology: Demonstrate aligning text using the alignment buttons in the Home ribbon

Lesson 5: Editing a Friendly Letter (two-day lesson)

Objectives:
- Academic: Identify and write the components of a friendly letter, such as heading, greeting, body, and closing
- Technology: Generate changes in a document using Track Changes
- Technology: Apply alignment and font formatting using menus and buttons in the Home ribbon
- Technology: Revise a document using the Spelling and Grammar tool

Lesson 6: Drafting an Outline (two-day lesson)

Objectives:
- Academic: Identify the main idea within a text
- Academic: Differentiate between the main idea and the supporting details within a text
- Academic: Apply knowledge of text outlines to real-life applications
- Technology: Construct an outline using Outline View in Microsoft® Word
- Technology: Develop multiple levels within the outline using the Promote and Demote arrow buttons

Lesson 7: Similes and Metaphors

Objectives:
- Academic: Interpret figurative language and include it in a poem
- Academic: Define and identify similes and metaphors
- Technology: Generate a poem on the center of a page using the Center Align button
- Technology: Apply bold and underline formatting to the title of a poem using the Bold and Italics buttons available in the Mini Toolbar

Lesson 8: Poetry

Objectives:
- Academic: Identify the speaker and analyze voice within poetry
- Academic: Create original poetry
- Technology: Arrange a poem on the center of a page using the Center Align button
- Technology: Generate and type a poem with multiple lines using the Enter key

Lesson 9: Coordinate Grids

Objectives:
- Academic: Identify and label the axes of a coordinate grid
- Academic: Identify and define ordered pairs on a coordinate grid
- Technology: Demonstrate inserting a text box and formatting text within the textbox
• Technology: Illustrate ordered pairs on a coordinate grid by inserting shapes using the Shapes drop-down menu

**Lesson 10: Number Prefixes**

Objectives:
- Academic: Identify number prefixes and define words that begin with number prefixes
- Academic: Categorize words with similar meanings within a table
- Technology: Demonstrate inserting shapes to illustrate number prefixes
- Technology: Construct and insert a table and type within it

**Unit 3: Microsoft® PowerPoint**

In this unit, you will explore features of Microsoft PowerPoint. You will learn how to create linear slide shows, ones that proceed from one slide right after another, and non-linear slide shows, ones that involve choices that affect which slide comes next, using action buttons and the slide sorter view. You will insert text boxes in order to identify and define synonyms and antonyms. You will insert SmartArt to create graphic organizers to aid with comparing and contrasting. Mathematically, you will learn about translation, rotation, and reflection and insert shapes. In social studies, you will create a slide show from scratch showing the steps of how a bill becomes a law.

Objectives:
- Create digital presentations to demonstrate sequencing, compare and contrast concepts, and define a process
- Plan and design a presentation using different themes, slide layouts, and fonts styles
- Demonstrate how to incorporate graphics and apply motions and animations to shapes, buttons, and clip art to create an engaging presentation

**Lesson 1: Antonyms and Synonyms**

Objectives:
- Academic: Identify and define antonyms and synonyms using a thesaurus
- Academic: Explain the difference between synonyms and antonyms
- Technology: Demonstrate inserting and typing synonyms and antonyms in new text boxes
- Technology: Demonstrate inserting a new slide using the New Slide drop-down menu
- Technology: Illustrate the definitions of synonyms and antonyms using clip art

**Lesson 2: Reflections, Translations, and Rotations**

Objectives:
- Academic: Describe how to reflect, translate, and rotate a shape
- Academic: Create patterns with translations, reflections, and rotations using shapes
- Technology: Apply animations and motion paths to shapes to simulate transformations

**Lesson 3: Sequence Ideas for Writing**

Objectives:
- Academic: Demonstrate knowledge of main idea and supporting details to sequence ideas during writing
- Technology: Arrange the correct slide sequence using the Slide Sorter view
- Technology: Create a themed presentation with various slide layouts, clip art, text and animations
- Technology: Apply animated entrance effects to sequence text and clip art on a slide

**Lesson 4: Compare and Contrast Fables (two-day lesson)**

Objectives:
- Academic: Identify and define a fable
• Academic: Compare and contrast the similarities and differences between fables
• Academic: Relate similarities in the theme, topic, and main idea between various fables
• Technology: Demonstrate how to insert and format SmartArt graphics to compare and contrast fables
• Technology: Demonstrate how to insert clip art and shapes to illustrate the characteristics of a fable

Lesson 5: How a Bill Becomes a Law (two-day lesson)

Objectives:
• Academic: Explain the process used to make a bill a law
• Academic: Identify and define key vocabulary used during the bill creation process
• Technology: Design a presentation using various slide layouts, clip art, and images to explain the bill process

Lesson 6: Food Chains (two-day lesson)

Objectives:
• Academic: Construct and define organisms in a food chain
• Academic: Examine the interrelationship between plants, animals, and fungi
• Academic: Define an herbivore, omnivore, and carnivore
• Technology: Demonstrate how to insert and format SmartArt to illustrate various stages of a food chain
• Technology: Construct an interactive food chain by adding action buttons and hyperlinks to different slides within a presentation

Unit 4: Microsoft® Excel

In this unit, you will explore features of Microsoft® Excel. You will learn to use borders and colors to display large numbers to represent place value visually and will be able to use these numbers to compare and order decimals. You will learn to insert formulas to show patterns in multiplying numbers by powers of 10 and will also be able to use formulas to convert feet to miles and vice versa, as well as use formulas to find the area of regular and irregular shapes. You will also do research on the world's oceans to collect data and create a table and graph.

Objectives:
• Combine groups of cells to demonstrate place value and area and to compare numbers
• Demonstrate how to incorporate borders and a fill color to create shapes and patterns
• Apply formulas to numbers to create patterns and manipulate numbers
• Classify and collect data to create graphs and display information in an organized way

Lesson 1: Place Value

Objectives:
• Academic: Identify place value of digits
• Academic: Relate groups of 10 to 100 and 1,000
• Technology: Navigate and type within cells
• Technology: Insert shapes into a workbook to represent place values
• Technology: Apply a fill color to shapes to help sort different place values

Lesson 2: Identifying Patterns

Objectives:
• Academic: Identify odd and even numbers in patterns
• Technology: Apply a fill color to cells to illustrate odd and even number patterns
• Technology: Insert an addition formula to build numbers and develop patterns

Lesson 3: Comparing Decimals (two-day lesson)

Objectives:
• Academic: Demonstrate how to compare decimals using the less than <, greater than >, and equal to = symbols
• Academic: Compare decimals to the hundredths place
• Technology: Apply a fill color to cells to illustrate decimals
• Technology: Apply borders to cells to illustrate a hundredths grid

Lesson 4: Multiplying by Powers of Ten

Objectives:
• Academic: Explain movement of a decimal point when a number is multiplied by 10, 100, or 1,000
• Academic: Apply powers of ten to multiplication problems
• Technology: Demonstrate how to insert a multiplication formula to multiply a decimal by 10, 100, or 1,000
• Technology: Navigate and type within cells

Lesson 5: Area

Objectives:
• Academic: Apply variables to replace numerals in mathematical equations
• Academic: Calculate the area of squares and rectangles
• Technology: Create uniform cells by applying a set column width
• Technology: Illustrate a square and rectangle by applying borders to groups of cells
• Technology: Compute the area of a square and rectangle by inserting a multiplication formula

Lesson 6: Area of Irregular Shapes (two-day lesson)

Objectives:
• Academic: Demonstrate how to compute the areas of irregular shapes
• Academic: Apply formulas to find the area of irregular shapes
• Technology: Apply borders to groups of cells to illustrate regular shapes within an irregular shape
• Technology: Demonstrate how to insert a fill color to identify rectangles within irregular shapes

Lesson 7: Converting Customary Units of Length

Objectives:
• Academic: Identify the customary units of length: feet and miles
• Academic: Demonstrate how to convert customary units of length using multiplication and division formulas
• Technology: Insert multiplication and division formulas to convert feet to miles and miles to feet

Lesson 8: Bodies of Water on Earth (two-day lesson)

Objectives:
• Academic: Identify, collect, and categorize data on the major bodies of water on Earth
• Technology: Identify and create a major type of graph (line, pie, or bar graph)
• Technology: Generate graphs to illustrate variations in surface area

Unit 5: Study Skills

In this unit, you will use different software applications to improve your study skills. In Microsoft® Word, you will create a table to help organize information about listening skills and a calendar to help manage your time wisely. You will learn about and use several methods of note taking, and apply note-taking strategies in future lessons. You will use Google Earth as a tool to enhance earning, and you will explore the benefits of online learning. You will identify and create short- and long-term goals toward a career goal and organize them in a brochure.

Objectives:
• Create a schedule to demonstrate time management
• Demonstrate how to use a table note-taking form or an outline for taking notes
• Utilize and evaluate the effectiveness of an online virtual tour
• Define online learning and active listening
• Create an original project illustrating short- and long-term goals

Lesson 1: Listening Skills

Objectives:
• Identify and apply the qualities of an active listener
• Summarize how to use active listening strategies
• Explain the importance of being a good listener by recording active listening strategies using the audio recording tool

Lesson 2: Organization and Time Management

Objectives:
• Demonstrate how to use organizational strategies to track, plan, and manage a schedule
• Create a weeklong calendar to organize tasks

Lesson 3: Note Taking

Objectives:
• Identify different learning styles and different ways to take notes
• Demonstrate how to take notes
• Discuss the purpose of note taking

Lesson 4: Virtual Tours

Objectives:
• Demonstrate the ability to complete an online virtual tour to learn about places without traveling to them
• Evaluate the usefulness of a virtual tour in enhancing learning

Lesson 5: Online Learning

Objectives:
• Describe online learning
• Discuss the pros and cons of online learning

Lesson 6: Goal Setting (two-day lesson)

Objectives:
• Distinguish between short- and long-term goals
• Plan short- and long-term goals for a possible career
• Create a short- and long-term career goals brochure to track progress toward reaching these goals

Unit 6: Internet Safety

In this unit, you will learn about Internet safety. You will learn to identify characteristics of online predators and practice strategies for online safety. You will write a practice blog to understand how online journaling can be a means of communication, and you will be able to create a list of rules for proper etiquette during texting and instant messaging. You will be able to define plagiarism, copyright, and intellectual property, and explain why another person's information cannot be used by someone else unless proper permission is obtained.

Objectives:
• Construct a digital presentation to demonstrate knowledge of intellectual property, fair use, copyright, piracy, and media literacy
• Compose documents demonstrating knowledge of blogging and cyberbullying

Lesson 1: Cybersecurity

Objectives:
• Identify viruses, worms, Trojan horses, and spyware as programs that can make a computer work improperly
• Summarize basic techniques to prevent viruses, worms, Trojan horses, and spyware infection
Lesson 2: Digital Literacy

Objectives:
- Define the term media literacy
- Identify types of media
- Explain the importance of media literacy

Lesson 3: Blogging

Objectives:
- Explain security risks associated with blogging
- Identify specific risky behaviors associated with blogging
- Describe positive techniques for safe blogging

Lesson 4: Cyberbullying

Objectives:
- Identify and describe elements of cyberbullying
- Explain the moral in a contemporary fairy tale

Lesson 5: Text Messaging Safety

Objectives:
- Describe text and instant messaging and their associated vocabulary
- Explain the need to follow basic safety rules and netiquette when text or instant messaging

Lesson 6: Predator Identification

Objectives:
- List safety rules for behavior toward strangers in the physical community that also apply to behavior toward strangers in cyberspace
- Explain the importance of refusing inappropriate online relationships
- Describe how to interact appropriately and safely online

Lesson 7: Intellectual Property, Fair Use, and Copyright I (two-day lesson)

Objectives:
- Demonstrate an understanding that property on the Internet can be owned just like physical property
- Relate the term intellectual property to something that is created in a person's mind
- Understand different types of media as intellectual property: writings, music, videos, games, etc.
- Explain that piracy is stealing from real people

Lesson 8: Intellectual Property, Fair Use, and Copyright II (two-day lesson)

Objectives:
- Identify unauthorized uses of copyrighted materials as acts of piracy and plagiarism
- Define fair use and copyright law

Lesson 9: Cyber Citizenship

Objectives:
- Explain safe and appropriate behavior in cyberspace
- Identify ways to be a good cyber citizen
- Plan the components of an educational story for a younger audience
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Students progress to more sophisticated work in this course, including the use of electronic media and software to apply academic concepts in the creation of meaningful organizers, projects and presentations. Students locate, retrieve and evaluate data in order to construct and analyze databases. Students produce presentations on Internet safety, online predators, and cyberbullying. At the end of the course, students become effective communicators and collaborators as they plan, evaluate and synthesize research emphasizing current issues with technology.

Unit 1: Introduction

In this unit, you will learn the basics about computers. You will learn how computers work and how to troubleshoot problems. You will also work on becoming a more efficient learner as you learn how to manage your files and work to improve your keyboarding skills.

Objectives:
• Apply proper keyboarding techniques to improve accuracy, speed, and overall efficiency in computer operation
• Describe how changes in technology throughout history have impacted different aspects of the world
• Distinguish the difference between hardware, software, components, and the operating system of computer and other technology devices
• Create an effective and efficient file hierarchy for courses and construct the file management system for schoolwork
• Develop and apply strategies for identifying and solving routine hardware and software problems

Lesson 1: Keyboarding Rows

Objectives:
• Apply proper keyboarding techniques to improve accuracy, speed, and overall efficiency in computer operation

Lesson 2: History of Technology

Objectives:
• Examine how computer technology has evolved over time
• Distinguish how changes in technology throughout history have impacted different aspects of the world

Lesson 3: Hardware, Components, and Operating Systems

Objectives:
• Distinguish the difference between hardware and software, and input and output devices
• Identify hardware, software, components and the operating system of a computer and other technology devices

Lesson 4: File Management and Organization

Objectives:
• Identify different file extensions, and demonstrate proper naming conventions of files
• Evaluate course folder structure to ensure that it is effective for the specified purpose
• Create a course folder structure using subfolders to organize and manage files

Lesson 5: Troubleshooting Computer Issues

Objectives:
• Develop and apply strategies for identifying and solving routine hardware and software problems

Unit 2: Microsoft® Word
In this unit, you will increase your understanding of Microsoft® Word as you learn how to efficiently create quality documents. You will learn to use editing features such as highlighting, Track Changes, and add comments. You will also become more efficient using macros, keyboard shortcuts, and outlines. You will explore figurative language as you read Greek mythology and poetry. You will learn strategies for researching Alexander the Great online and use your research to create a final product using the design features within Microsoft® Word.

Objectives:
- Demonstrate command of reading strategies and standard English language using editing tools in a document
- Integrate a variety of file types to produce original narrative works that analyze theme, character development, and figurative language
- Analyze and illustrate plot, character development, and processes by inserting graphics, shapes, and diagrams
- Conduct a scholarly Internet search using filters and Boolean search strategies
- Publish research and enhance documents by inserting text boxes, images, and captions

Lesson 1: Verbs: Past, Present, and Future

Objectives:
- Academic: Use correct verb tense (past, present, and future) when writing or editing text
- Technology: Distinguish correct and incorrect verb tense in sentences, and then demonstrate necessary corrections using the Track Changes feature
- Technology: Select text in a variety of ways and utilize keyboard shortcuts to cut and paste verbs according to past, present, and future tense

Lesson 2: Context Clues

Objectives:
- Academic: Analyze context clues in order to determine the meaning of a word
- Technology: Demonstrate highlighting and modifying text to identify the context clues of an unknown word using a macro
- Technology: Examine sentences to determine which type of context clue is employed in the sentence and label the clue using heading styles available in the Home ribbon

Lesson 3: Analyzing Literature (two-day lesson)

Objectives:
- Academic: Analyze the effect of figurative language on the tone or meaning of a poem
- Academic: Explore how the author’s choice of words shapes the meaning of a poem
- Technology: Insert and modify a quick table in order to compare and contrast poems
- Technology: Add headings to a table and merge cells to allocate more space to analyze poetry

Lesson 4: Greek Mythology

Objectives:
- Academic: Identify and explain the purpose or social message of ancient myths
- Technology: Publish a plan for an original myth, and enhance the document by inserting clip art with text wrapped around it and adding a title using WordArt
- Technology: Determine the theme of a story and then format text using the Mini toolbar to identify what parts of the story support the theme

Lesson 5: Personification

Objectives:
Lesson 6: Drawing Inferences

Objectives:
- Academic: Draw inferences about the main character in a text
- Technology: Utilize the comment feature to answer questions requiring a literature analysis to draw conclusions and inferences
- Technology: Modify text using the Font window to indicate the answers explicitly stated in the text

Lesson 7: Technology for Searching (two-day lesson)

Objectives:
- Academic: Conduct a scholarly search using Boolean operators
- Academic: Locate information about Alexander the Great that supports a research topic
- Technology: Conduct an Internet search about Alexander the Great using filters to narrow results in EBSCO
- Technology: Modify a table to include a hyperlink to the site, proper citation, and brief notes about each resource

Lesson 8: Writing an Outline: Alexander the Great

Objectives:
- Academic: Develop an outline based on research
- Technology: Generate an outline based on notes to plan an expository essay about Alexander the Great

Lesson 9: Writing an Expository Essay (two-day lesson)

Objectives:
- Academic: Construct an expository essay which includes an introduction, thesis, body, and conclusion
- Technology: Utilize multimedia sources to insert images and captions
- Technology: Demonstrate inserting an endnote to cite sources
- Technology: Demonstrate correcting grammatical and punctuation errors using the Spelling and Grammar tool

Unit 3: Microsoft® PowerPoint

In this unit, you will learn advanced features of Microsoft® PowerPoint, including how to record audio on slides and create nonlinear presentations using Action buttons. You will learn to create engaging presentations using animations, transitions, SmartArt, graphics, and the elements of design. You will explore the development of a narrative story including plot, theme, and character development. You will use PowerPoint to create a story with alternate endings, an interactive food web, and a modern version of the “Three Little Pigs.”

Objectives:
- Produce digital presentation with audio to demonstrate understanding of personal narratives
- Create interactive nonlinear presentations to analyze characters, create original stories, and describe scientific interactions
- Apply graphics, transitions, animations, and modified text to enhance presentations

Lesson 1: Technology for Publishing

Objectives:
- Academic: Develop the storyline for a personal narrative
- Technology: Demonstrate using the Record Audio Tool to record a personal narrative story varying the tone of voice, pace, and volume of speech
Lesson 2: Analyzing Plots

Objectives:
• Academic: Order the key events of a plot in the correct sequence
• Academic: Describe the elements of plot and analyze how they impact the readability of a story
• Technology: Use Slide Sorter View to put key events of a story in order to show how the plot of a story unfolds in a series of episodes
• Technology: Insert text boxes to identify the elements of plot in a story
• Technology: Insert a Title slide to add a title to the story

Lesson 3: Narrative Writing (two-day lesson)

Objectives:
• Academic: Alter the character’s decision at a crucial point in the story and analyze how that change will impact the plot resolution
• Academic: Propose a new ending for a known story
• Technology: Create a nonlinear presentation using the Action tool to create a story with alternate endings
• Technology: Apply transitions to slides to make the presentation engaging to the audience

Lesson 4: Values Portrayed in Literature (two-day lesson)

Objectives:
• Academic: Adopt the values portrayed in an old story and recreate and apply them in current setting
• Technology: Apply slide timings to publish a short story
• Technology: Hide and unhide slides to create a cohesive story when the presentation is published
• Technology: Publish a short story created in Microsoft® PowerPoint as a movie

Lesson 5: Food Chains (two-day lesson)

Objectives:
• Academic: Explain how the food chain works
• Academic: Create a simple food chain
• Academic: Formulate a hypothesis predicting what would happen if an organism was removed from the food chain
• Technology: Demonstrate the food chain by inserting shapes and connecting provided images
• Technology: Construct a complex nonlinear interactive presentation using action buttons to demonstrate the interactions between organisms in a food chain

Unit 4: Microsoft® Excel

In this unit, you will learn how to use Microsoft® Excel to create a database and graph data using charts and the histogram add-in. You will work with numerical data using the rounding function (MROUND) and the adding function (SUM). You will learn to analyze data and how to work with the data more, using the sort and filter features. You will create a survey to collect data and use the data to create your own database for analysis.

Objectives:
• Utilize mathematical functions and sort feature in a spreadsheet to analyze, sort, and solve mathematical equations using numeric data
• Create graphs in multiple formats in order to determine advantages and disadvantages of types of graphs and to evaluate numeric data
• Build a database and analyze collected data using the filter and sort functions to identify and describe patterns and solve problems

Lesson 1: Ordering Positive and Negative Numbers

Objectives:
• Academic: Sort integers from greatest to least and from least to greatest
• Technology: Demonstrate keyboard shortcuts to copy and paste and cut and paste data in a spreadsheet
Lesson 2: Estimating by Rounding

Objectives:
- Academic: Identify parts of an equation using mathematical terms
- Academic: Round two-digit numbers involving three addends in an equation
- Technology: Utilize the MROUND function to round two-digit numbers involving three addends in an equation
- Technology: Employ the AutoSum feature to check mental addition of a list of numbers

Lesson 3: Graphing Data

Objectives:
- Academic: Select the type of graph that is most appropriate for the data to be displayed
- Academic: Evaluate advantages and disadvantages of various types of graphs
- Technology: Graph two data series in multiple formats in order to evaluate the graphs’ advantages and disadvantages

Lesson 4: Interpreting Histograms

Objectives:
- Academic: Display provided numerical data in a histogram
- Academic: Explain the difference between a bar graph and a histogram
- Technology: Build a histogram using the Microsoft® Excel add-in with provided data

Lesson 5: Creating a Database

Objectives:
- Academic: Analyze a set of data to answer statistical questions
- Technology: Build a database to analyze data and solve problems

Lesson 6: Filtering a Database

Objectives:
- Academic: Identify and describe patterns in provided data
- Academic: Given specific database formats, determine filter criteria
- Technology: Apply filters and use the Sort feature in a database to identify and describe patterns in data

Lesson 7: Technology for Data Analysis (two-day lesson)

Objectives:
- Academic: Collect and interpret data using filtering options and graphs in Microsoft® Excel
- Technology: Build a database based on data collected in a survey
- Technology: Analyze collected data using the Filter and Sort functions
- Technology: Chart numeric data using appropriate graph

Unit 5: Study Skills

In this unit, you will learn various strategies related to time management, organization, and goal setting. These strategies include color coding by subject, utilizing your student planner, and scheduling. You will use a process and organizer to evaluate information you find on the Internet. You will explore mnemonic techniques to assist with memorization, helpful test-taking tips, and various methods of studying for tests. Finally, you will explore and evaluate games and simulations as learning tools.

Objectives:
- Devise a plan for managing time and organizing a study area and related materials
- Examine and apply note-taking techniques and mnemonic devices as test preparation strategies
• Develop SMART long-term and short-term goals in preparation for long-term success in middle school
• Research examples of simulations and interactive games for online education

**Lesson 1: Organization and Time Management**

Objectives:
• Create and follow a study schedule
• Organize a work/study area
• Describe benefits of developing good study skills

**Lesson 2: Using Graphic Organizers**

Objectives:
• Use a process and organizer to evaluate and validate information from the World Wide Web

**Lesson 3: Memory Aids**

Objectives:
• Devise ways to remember important facts and information

**Lesson 4: Study Strategies**

Objectives:
• Explain the importance of good note taking as a test preparation strategy
• Use one new note-taking strategy while completing homework

**Lesson 5: Test-Taking Strategies**

Objectives:
• Identify test-taking strategies that you will use when taking the next test in each of your current courses

**Lesson 6: Goal Setting (two-day lesson)**

Objectives:
• Describe the importance of goal setting in education
• Develop SMART long-term and short-term goals for middle school

**Lesson 7: Learning Through Games and Simulations**

Objectives:
• Research examples of simulations and interactive games for education online

**Unit 6: Internet Safety**

In this unit, you will learn how to use the Internet in a safe and responsible way as a tool for communication, research, and collaboration. The unit begins by explaining the concept of a virtual community and discusses topics such as online bullying and negative networking. You will recognize Internet safety concerns including the importance of choosing a safe user name and keeping personal information safe from strangers, risks associated with online shopping, and the threat of online predators. Finally, you will learn about intellectual property and copyright concepts. You will also examine the consequences that are associated with piracy and illegal music downloading.

Objectives:
• Describe and demonstrate safe, legal, and responsible digital citizenship in the online community
• Select and evaluate digital resources and describe how to ethically use online information in research

**Lesson 1: Acceptable Use Policy**

Objectives:
• Explain the purpose of rules and define Acceptable Use Policy (AUP)
• Evaluate an AUP and create an AUP for your learning environment
Lesson 2: Cybersecurity (two-day lesson)

Objectives:
• Define spyware and virus
• Describe security risks associated with downloading items online
• Evaluate personal activity on the Internet with regard to putting your computer or information at risk

Lesson 3: Cyber Community

Objectives:
• Compare social roles in the online community to social roles in the physical community
• Identify features of inappropriate websites and how to avoid them
• Discuss how cybercitizenship is a necessary component for online communities

Lesson 4: Text Messaging and Netiquette

Objectives:
• Identify the safety risks associated with cell phones and texting
• Define netiquette and describe how it can help you effectively communicate when texting

Lesson 5: Cyberbullying

Objectives:
• Define cyberbullying and describe ways to prevent it
• Analyze how student actions impact others
• Describe how netiquette can be used to prevent cyberbullying

Lesson 6: Safeguarding Identity

Objectives:
• Describe how to safely engage in online relationships
• Explain risks of providing too much personal information in online profiles, forms, and forums

Lesson 7: Protecting Yourself from Online Predators

Objectives:
• List safety rules for behavior toward strangers in the physical community that also apply to behavior toward strangers in cyberspace
• Explain the importance of refusing inappropriate online relationships
• Describe how to interact appropriately and safely online

Lesson 8: Digital Literacy I: Successful Searches

Objectives:
• Compare different types of search engines
• Write search engine queries that will get quality results and select the most appropriate search string results

Lesson 9: Digital Literacy II: Website Validity

Objectives:
• Explain the importance of using sites that are valid and reliable
• Evaluate online resources for validity and reliability

Lesson 10: Intellectual Property Basics

Objectives:
• Distinguish between tangible property and intellectual property
• Define copyright and identify copyrighted materials

Lesson 11: Plagiarism and Fair Use

Objectives:
• Define plagiarism and identify how plagiarism occurs
Unit 7: Digital Publishing

In this unit, you will combine all of the skills you have learned to create a final product of your choice. You will begin by researching a technology topic, and then you will investigate design elements and software options to create a multimedia product that demonstrates what you have learned. You will have the opportunity to discuss your product with your peers and evaluate their work as well.

Objectives:
- Apply questioning and research skills to research the impact of technology on society
- Evaluate usefulness of software applications for various purposes and select methods for publishing research
- Design and produce a multimedia project that integrates a variety of file types to publish research
- Apply graphics, transitions, animations, and modified text to demonstrate understanding of basic elements of design
- Utilize collaboration software to participate in a peer review

Lesson 1: Exploring a Topic (two-day lesson)

Objectives:
- Research the impact of technology on the workplace or a career of choice using Boolean search strategies
- Apply questioning and research skills to narrow down a topic for investigation

Lesson 2: Investigating Design

Objectives:
- Describe basic elements of design and how they apply to multimedia

Lesson 3: Selecting an Application and Publishing Work (two-day lesson)

Objectives:
- Analyze applications focusing on advantages and disadvantages of each
- Evaluate an application’s usefulness for various purposes
- Select methods for publishing research
- Create a multimedia presentation to reflect your research investigation

Lesson 4: Collaborating Online

Objectives:
- Utilize technology to share ideas and collaborate with peers
- Evaluate others’ works using provided criteria

Lesson 5: Evaluating Your Product (two-day lesson)

Objectives:
- Revise and edit a project based on provided criteria
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Students progress to more sophisticated work in this course, including the use of electronic media and software to apply academic concepts in the creation of meaningful organizers, projects, and presentations. Students locate, retrieve, and evaluate data to construct and analyze databases. Students produce presentations on Internet safety, online predators, and cyber bullying. At the end of the course, students become effective communicators and collaborators as they plan, evaluate, and synthesize research emphasizing current issues with technology.

Unit 1: Introduction

This unit will provide basic computer and technology skills and information to assist you in completing work on a computer and the Internet. You will touch on the history of technology and learn about parts of computers as well as what to do when trouble occurs. You will also focus on basic keyboarding skills that will assist you not only with this course but any online computer activities in the future.

Objectives:
- Identify how changes in technology throughout history have impacted different aspects of the world
- Identify and understand computer operating systems
- Compare and contrast various input, processing, output, and storage devices
- Demonstrate how to use management tools and strategies enabled by a computer's operating system
- Apply troubleshooting techniques in preparation for minor computer problems that may occur

Lesson 1: Keyboarding

Objectives:
- Recognize the home row keys on the keyboard
- Recognize the keys in rows above and below the home row
- Utilize keys from the home row and the rows above and below the home row to type words, phrases, and sentences
- Demonstrate appropriate posture and positioning for keyboarding

Lesson 2: History of Technology

Objectives:
- Identify how changes in technology throughout history have impacted different aspects of the world

Lesson 3: Hardware, Components, and Operating Systems

Objectives:
- Distinguish the difference between hardware and software, and input and output devices
- Identify and define types of hardware, software, operating systems, and components of a computer and other technology devices

Lesson 4: File Management and Organization

Objectives:
- Identify different file extensions, and demonstrate proper naming conventions of files
- Practice saving a document as different files types in Microsoft® Word
- Create a course folder structure using subfolders to organize and manage files
- Organize files into appropriate folders and analyze a folder hierarchy

Lesson 5: Computer Troubleshooting

Objectives:
- Apply troubleshooting techniques in preparation for minor computer problems that may occur

Unit 2: Microsoft® Word

Objectives:
- Identify how changes in technology throughout history have impacted different aspects of the world
- Identify and understand computer operating systems
- Compare and contrast various input, processing, output, and storage devices
- Demonstrate how to use management tools and strategies enabled by a computer's operating system
- Apply troubleshooting techniques in preparation for minor computer problems that may occur
This unit focuses on reading and analyzing different types of texts through the many tools Microsoft® Word has to offer. Personal narratives are developed through the stages utilizing revising and editing features, highlighting, and underlining. Graphic organizers are created to compare texts as well as help structure prewriting and brainstorming. The portfolio assignment stretches across three lessons, the student will learn new skills and work to complete a personal narrative.

Objectives:
- Evaluate different types of text to gain meaning and understanding as a reader and a writer
- Recognize different types of figurative language in texts and express this with original writing
- Analyze different texts to understand the importance of organization and organizing thoughts for writing using graphic organizers within Microsoft Word
- Complete the writing process of a personal narrative beginning with prewriting and following through to the rough draft and revising and editing

Lesson 1: Fact vs. Opinion in Publications

Objectives:
- Academic: Evaluate text to determine whether it is a fact or opinion
- Academic: Provide support of ideas from information in the text that verifies it is fact or opinion
- Technology: Apply an underline to words using the Underline button and the Underline Style drop-down menu available in the Font window
- Technology: Create and insert SmartArt to organize facts and opinions

Lesson 2: Using a Thesaurus

Objectives:
- Academic: Compare similar writings that use synonyms for overused words
- Academic: Utilize different types of thesaurus sources to obtain synonyms and integrate them in previously written sentences
- Technology: Utilize thesaurus.com and the Thesaurus feature in Microsoft® Word to search for synonyms
- Technology: Demonstrate how to highlight text using the Highlighter drop-down menu in order to color code adjectives and adverbs
- Technology: Apply edits to two documents using the View Side by Side feature
- Technology: Construct and insert a table in a document with a specified number of columns and rows and format text within the table

Lesson 3: Idioms

Objectives:
- Academic: Evaluate the use of figurative language in general with the characteristics of idioms
- Academic: Implement idioms within personal writing and research the meaning of idioms
- Technology: Create a document containing two columns and headings at the top of each column
- Technology: Format and edit a SmartArt graphic in order explain an idiom
- Technology: Insert a clip art image into a SmartArt graphic illustrating an idiom

Lesson 4: Organizing Writing (two-day lesson)

Objectives:
- Academic: Analyze a story to discover the importance of order and organization in narrative writing
- Academic: Evaluate different types of graphic organizers that can be used to organize different types of writing including timelines, personal narratives, and fictional story
- Academic: Utilize different graphic organizers to help with organizing writing ideas
Lesson 5: Reading Textual, Functional, and Recreational Text

Objectives:
- Academic: Analyze different types of text and determine attributes associated with factual, textual, and recreational text
- Academic: Identify characteristics of different types of text
- Academic: Determine uses for each type of text in real-life settings
- Technology: Utilize and format a table in a document to identify text characteristics
- Technology: Format a checklist to use as a personal resource when writing

Lesson 6: Points of View

Objectives:
- Academic: Establish point of view by writing from a literal visual point of view
- Academic: Enhance writing by utilizing different points of view for different narratives
- Academic: Analyze points of view and associate different characteristics with each type of view
- Technology: Edit images embedded in a document and create captions using the Insert Caption button
- Technology: Utilize the Highlighter tool to highlight words in captions

Lesson 7: History: Personal Narratives

Objectives:
- Academic: Distinguish between the attributes of spoken speech and written text
- Academic: Recognize both point of view and voice in writing
- Technology: Utilize, insert and format a SmartArt graphic to create a Venn diagram comparing written and spoken word
- Technology: Change orientation of the document from portrait to landscape

Lesson 8: Writing a Personal Narrative (two-day lesson)

Objectives:
- Academic: Utilize prewriting organizers in order to write a personal narrative
- Academic: Incorporate figurative language into writing
- Technology: Develop and type a rough draft personal narrative in a Microsoft® Word document
- Technology: Insert and format text boxes to separate parts of the story

Lesson 9: Revising and Editing Writing (two-day lesson)

Objectives:
- Academic: Evaluate the process of revising and editing to understand the meaning of each
- Academic: Analyze personal writing through the revision and editing process
- Technology: Use the revising and editing features in Microsoft® Word including the Spelling and Grammar tool and the Thesaurus

Unit 3: Microsoft® PowerPoint

This unit focuses on creating Microsoft® PowerPoint presentations to share research and data. It combines math and language skills by providing opportunities for research and then allowing you to turn that research into observable data. The culminating activity in this unit becomes the portfolio as you work from the beginning researching a topic and then turn that into a presentation and timeline.
Objectives:
• Identify the changes and trends in technology over time
• Observe different points of view in history and apply it to writing
• Investigate probability of an action and relationships among chance happenings
• Conduct Internet research and evaluate for credible and reliable sources
• Organize research, convert it to data, and transfer it to a presentation and timeline format

Lesson 1: Technology for Publishing (two-day lesson)

Objectives:
• Academic: Publish a final copy of a personal narrative
• Technology: Record a personal narrative using the Record Audio tool in Microsoft® PowerPoint
• Technology: Insert clip art and sound within the presentation

Lesson 2: Using Context Clues

Objectives:
• Academic: Read and analyze historical text
• Academic: Identify unknown or unfamiliar words and use context clues to determine their meaning
• Technology: Utilize the Thesaurus feature to infer the meaning of the unfamiliar word
• Technology: Demonstrate adding additional slides to a presentation using the New Slide drop-down menu
• Technology: Create a presentation and apply a different font color to text to illustrate the context clues and define unfamiliar words

Lesson 3: Graphing Probability

Objectives:
• Academic: Explore basic probability
• Academic: Observe frequencies of an event by collecting and tallying data
• Academic: Investigate relationships of the event by creating a table to analyze data
• Technology: Demonstrate inserting a graph or chart using the Microsoft® Excel charting function within Microsoft® PowerPoint

Lesson 4: Graphing Probability Part 2

Objectives:
• Academic: Determine probability of events and analyze the relationships
• Academic: Analyze the probability of an event using the terms greater or lesser likelihood
• Technology: Demonstrate inserting a graph or chart using the Microsoft® Excel charting function within Microsoft® PowerPoint
• Technology: Adjust and format graphs in a presentation using the Design, Layout, and Format ribbons
• Technology: Use the Record tool to share information within the presentation

Lesson 5: Technology for Searching

Objectives:
• Academic: Search, examine, and assess research articles to determine authenticity and sound reasoning
• Technology: Create a presentation to share information from research
• Technology: Modify a table and insert hyperlinks to maintain a record of reliable sources and websites

Lesson 6: Technology for Inquiry

Objectives:
• Academic: Conduct an Internet search for information and evaluate the text for authenticity
• Academic: Organize resources from Internet research
Lesson 7: Technology for Communication Geologic Time Scale (two-day lesson)

Objectives:
- Academic: Outline geological research and illustrate the time scale sequence logically
- Technology: Insert and format SmartArt to organize and sequences events
- Technology: Create a presentation to sequence events of the geological time scale

Unit 4: Microsoft® Excel

This unit contains a combination of math and research skills. Students begin the unit rounding decimals and then organizing data into input/output tables. Students also work on balancing a checkbook by inserting formulas. Then they will focus on surveys and organizing that data to create a graph. The portfolio is based on the final topic in which students create a graph from self-created surveys.

Objectives:
- Apply knowledge of rounding and place value to round decimal numbers
- Organize data, create input/output tables, and enter and manipulate that data in an Excel workbook
- Enter data and balance a checkbook by inserting formulas within Excel
- Create a survey, obtain data, organize data, and input data into a workbook to evaluate information
- Create and format graphs using data in a workbook

Lesson 1: Estimate by Rounding

Objectives:
- Academic: Determine when it is appropriate to round decimal numbers up or down to the nearest whole number
- Academic: Solve multi-step problems by rounding decimals
- Technology: Round numbers with decimals to practice estimation using the ROUND function
- Technology: Apply formulas to multiple cells in a workbook using the AutoFill feature

Lesson 2: Function Tables

Objectives:
- Academic: Create input/output tables from expressions
- Academic: Solve word problems and equations using an input/output table
- Technology: Create an input/output table in Excel to show answers to equations
- Technology: Insert and apply multiplication and addition formulas to an input/output table

Lesson 3: Real-World Data

Objectives:
- Academic: Balance a checkbook within a provided resource
- Technology: Insert formulas into an Excel workbook to determine the balance of the checkbook
- Technology: Insert and apply the SUM function to add multiple cells together

Lesson 4: Finding the Mean and Range of Data

Objectives:
- Academic: Organize data to enable easier comparison
Lesson 5: Sorting and Filtering Data

Objectives:
- Academic: Analyze data in a database to identify similarities and differences
- Technology: Organize, sort and filter data in a database to identify trends
- Technology: Define and identify fields, field names and records in a database

Lesson 6: Graphing Data

Objectives:
- Academic: Evaluate different types of graphs and determine appropriate graphs for certain types of data
- Technology: Graph two data series in multiple formats and evaluate the graphs’ advantages and disadvantages

Lesson 7: Survey and Graphing Analysis (two-day lesson)

Objectives:
- Academic: Evaluate a random sample for fair and unbiased questions
- Academic: Compare and analyze collected data
- Technology: Organize information into a data table in Excel
- Technology: Create a graph from the data table in Excel to compare data

Unit 5: Study Skills

This unit focuses on various strategies related to time management, organization, and goal setting. You will create diagrams, and you will use these diagrams to compare and contrast information. You will develop a study plan that will help guide you through your studies. Finally, you will explore mnemonic techniques to assist with memorization, helpful test-taking tips, and various methods of studying for tests.

Objectives:
- Identify and manage personal study skills, memory devices, and time management skills
- Evaluate personal test-taking skills and improve upon them to develop educational goals
- Evaluate purposes for a timeline
- Create a timeline
- Analyze data and predict trends based on online games

Lesson 1: Organization and Time Management

Objectives:
- Identify characteristics of time management
- Identify time management skills that need improving
- Design a weekly schedule to improve time management skills

Lesson 2: Using Graphic Organizers: Timelines

Objectives:
- Evaluate a timeline as a tool to support learning
- Create a timeline

Lesson 3: Memory Aids

Objectives:
- Identify key elements in creating memory tools, acronyms, and acrostics
- Construct original acronyms and acrostics using information from current academic courses

Lesson 4: Study Strategies

Appendix A.2.g Educational Technology Course Guides

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Objectives:
• Identify different study skills
• Formulate a method of studying that works best for you

Lesson 5: Test-Taking Strategies

Objectives:
• Distinguish between characteristics of objective questions and essay questions
• Evaluate personal test-taking strategies
• Utilize test-taking strategies

Lesson 6: Goal Setting (two-day lesson)

Objectives:
• Express the characteristics of successful and well-thought-out goals
• Apply study skills while developing short- and long-term goals

Lesson 7: Learning through Games and Simulations

Objectives:
• Research examples of simulations and interactive games for education online
• Analyze trends that occur when repeating simulations with different data
• Predict outcomes when data in a simulation is changed

Unit 6: Internet Safety

The focus of this unit is to provide guidance for using the Internet in a responsible way as a tool for communication, research, and collaboration—in other words, Internet safety. Good citizenship within virtual communities is presented, as well as topics such as online bullying and negative networking/gangs online. Internet safety concerns, including the importance of choosing a safe user name and keeping personal information safe from strangers, the risks associated with online shopping, and the threat of online predators, are also touched on. Finally, intellectual property and copyright concepts are discussed. You will also examine the consequences that are associated with piracy and illegal music downloading.

Objectives:
• Evaluate different safety rules for Internet use and clarify why safety is important when using the Internet
• Compare online risks with those in real life
• Reflect on what intellectual property is and how the principle is used to protect ideas
• Compare plagiarism and piracy to theft in real life

Lesson 1: Acceptable Use Policy

Objectives:
• Identify necessary components of an acceptable use policy (AUP)
• Review the school's AUP
• Develop AUP guidelines

Lesson 2: Cybersecurity

Objectives:
• Identify key general attributes of the threats to the security of computers and information via the Internet, such as viruses, worms, and Trojan horses
• Understand how to protect computers from viruses, worms, Trojan horses, and spyware
• Understand basic prevention and maintenance that can be done to protect the computer, such as operating system updates, firewalls, spyware checks, virus protection, etc.

Lesson 3: Cyber Community (two-day lesson)

Objectives:
• Describe different ways to communicate
• Differentiate between appropriate and inappropriate websites
• Describe different ways to handle inappropriate websites
Lesson 4: Social Networks

Objectives:
- Identify media that is commonly shared online
- Define the relevance of intellectual property rights to online sharing in an age-appropriate way
- Compare the relationship of intellectual property rights to linking on personal social networking pages

Lesson 5: Cyberbullying

Objectives:
- Identify bystanders who may be involved in a cyberbullying incident
- Use a variety of resources to explore the characteristics and behaviors of bystanders and upstanders
- Draw conclusions about the actions of various participants in bullying incidents

Lesson 6: Safety in Online Gaming

Objectives:
- Evaluate the concept of online gaming
- Understand the safety and security risks associated with online gaming
- Develop an action plan for informing others of how to play online safely

Lesson 7: Safeguarding Identity

Objectives:
- Evaluate the concept of identity theft
- Critique the security risks associated with revealing private information online
- Develop an action plan for dealing with identity theft that can be shared with parents

Lesson 8: Online Shopping

Objectives:
- Evaluate the safety risks associated with online shopping
- Take preventative measures when shopping online to help ensure personal safety and computer security

Lesson 9: Blogging

Objectives:
- Evaluate the security risks associated with online journaling and blogging
- Identify specific risky behaviors associated with online journaling
- Determine positive techniques to blog online

Lesson 10: Cyber Predators

Objectives:
- Evaluate risks involved in engaging in online friendships
- Discuss basic strategies for interacting online
- Demonstrate understanding of risky online interaction through a selected project/activity

Lesson 11: Safety in Online Relationships

Objectives:
- Apply the concept of willing participation
- Evaluate risk-taking in the context of a cyber predator case
- Make conclusions about who is most at risk for potentially dangerous online relationships
- Make conclusions about how to maintain safe and healthy online relationships

Lesson 12: Digital Literacy
• Compare how the Internet and media publications can be used in positive ways, as well as in negative or unethical ways
• Create a code of conduct governing Internet use
• Consider the consequences of various means of online publication

Lesson 13: Understanding Intellectual Property

Objectives:
• Make a distinction between tangible property and intellectual property
• Define intellectual property that has been created in the mind before it is turned into a material item
• Identify copyrighted materials as tangible works that are protected from being copied, distributed, performed, or changed without the creator's or owner's permission
• Identify the impact made when intellectual property rights are not respected
• Relate the concepts of intellectual property to reveal available online materials: music, videos, software, etc.

Lesson 14: Music Copyright Basics

Objectives:
• Apply copyright laws to online usage of music
• Determine legal alternatives when using copyrighted music for school assignments and/or personal use

Lesson 15: Plagiarism and the World Wide Web

Objectives:
• Define plagiarism
• Identify how plagiarism occurs
• Follow the basic guidelines for fair use of intellectual property

Lesson 16: Peer-to-Peer Networks

Objectives:
• Define and understand the concept of peer-to-peer networks
• Identify the safety and security risks, as well as legal issues, surrounding peer-to-peer networks
• Understand and correct misconceptions about the use of peer-to-peer networks

Unit 7: Digital Publishing
This unit contains a focus on digital publishing, in which you will conduct Boolean searches on the Internet, learn about elements of design, and complete a research project. The research project is the culminating project over several lessons. You will research an ethical implication of technology, communicate how it may positively or negatively impact stakeholders, and participate in a collaborative discussion to receive feedback from peers and use that feedback to self-evaluate and revise your work.

Objectives:
• Develop a research plan and conduct Internet research using Boolean strategies
• Create a multimedia presentation to communicate research
• Collaborate with peers to share ideas, evaluate each other's work, and receive feedback
• Self-evaluate work and make revisions to reflect product criteria

Lesson 1: Exploring a Topic (two-day lesson)

Objectives:
• Utilize Boolean search strategies to research ethical implications of technology
• Develop a research plan, and identify stakeholders involved
• Apply questioning and research skills to narrow down a topic for investigation

Lesson 2: Investigating Design
Objectives:
• Define the elements of design including line, shape, texture, color, value, and space
• Understand the uses for line, shape, texture, color, value, and space in design
• Apply the basic elements of design to edit work
• Utilize the GNU Image Manipulation Program, GIMP, to edit images

Lesson 3: Creating a Multimedia Presentation (two-day lesson)

Objectives:
• Create a multimedia presentation to communicate the ethical implications of technology and artificial intelligence

Lesson 4: Collaborating Online

Objectives:
• Utilize technology to share ideas and collaborate with peers
• Evaluate others’ works using provided criteria

Lesson 5: Evaluating the Product (two-day lesson)

Objectives:
• Self-evaluate a product in regard to audience, purpose, design, and content delivery
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Students progress to more sophisticated work in this course, including the use of electronic media and software to apply academic concepts in the creation of meaningful organizers, projects, and presentations. Students locate, retrieve, and evaluate data in order to construct and analyze databases. Students produce presentations on Internet safety, online predators, and cyberbullying. At the end of the course, students become effective communicators and collaborators as they plan, evaluate, and synthesize research emphasizing current issues with technology.

Unit 1: Introduction

In this unit, you will revisit and expand upon basic computer skills. You will practice hand positioning for efficient typing skills and familiarize yourself with various computer components, including personal hardware, operating systems, and software programs. You will examine troubleshooting methods to gain familiarity of common computer issues and ways to effectively overcome them.

Objectives:
- Utilize keys above, below, and on the home row to type individual letters and words
- Create an effective and efficient file hierarchy for courses and construct the file management system for schoolwork
- Develop strategies and recommend solutions to various computer problems
- Distinguish the difference between hardware, software, components, and the operating system of computer and other technology devices

Lesson 1: Typing Skills

Objectives:
- Utilize keys from the home row, and rows above and below the home row to type individual letters and words
- Identify spelling errors with the opportunity to self-correct

Lesson 2: Hardware, Components, and Operating Systems

Objectives:
- Compare and contrast input, output, processing, and data storage devices
- Describe computer hardware, components, and system
- Identify personal software programs
- Create a course folder structure using subfolders to organize and manage files

Lesson 3: Computer Troubleshooting

Objectives:
- Examine troubleshooting techniques related to everyday computer use
- Recommend solutions to various computer problems
- Identify appropriate resolutions to common computer problems

Unit 2: Microsoft® Word

This unit explores common uses for Microsoft® Word in an educational setting while utilizing real-world applications. You will be guided through the digital writing process, construct paragraphs, and format text while using active and passive voice and a variety of verb moods. Narrative and poetic structure will also be analyzed using columns and rows within a table to organize thoughts and ideas. A variety of essays will also be presented for you to utilize. You will conduct a search and update a search log. In your writing, you will learn to accurately reference materials in scholastic documents.

Objectives:
- Explore and create task-specific writing structures to include paragraphs, poetry, expository, and informative writing
- Utilize Microsoft Word to plan and create text-based documents through the research and development phases
- Conduct a search and site sources accurately in a document

Lesson 1: Verbs in the Active and Passive Voice

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Objectives:
• Academic: Apply both active and passive voice in writing
• Academic: Construct a news article with proper paragraph alignment and indentation
• Technology: Compose a typed news article using the Tab key to indent text or apply double spacing between paragraphs using the Enter key

Lesson 2: Verbs Expressing Mood
Objectives:
• Academic: Identify and analyze indicative, imperative, and subjunctive verb moods in context
• Technology: Demonstrate how to bold, italicize, and underline text using buttons and menus available in the Home ribbon
• Technology: Apply the same font face throughout a document

Lesson 3: Characters, Setting, and Plot
Objectives:
• Academic: Identify parts of a story
• Academic: Outline and summarize the characters, setting, and plot of a story
• Technology: Organize the structure of a story within a document by inserting columns and column breaks to add headings

Lesson 4: Thematic Poetry (two-day lesson)
Objectives:
• Academic: Illustrate the rhyme scheme of a favorite song
• Academic: Identify and explain the theme and rhyme scheme of poetry
• Technology: Demonstrate inserting a table to construct and display the rhyme scheme of poetry

Lesson 5: Technology for Searching: Cyberbullying (three-day lesson)
Objectives:
• Academic: Locate articles in a database using specific search parameters
• Technology: Construct a search log to cite works by inserting a table and hyperlinks
• Technology: Apply font formatting to identify key information gained in research
• Technology: Conduct online database searches using Boolean operators

Lesson 6: Technology for Publishing: Cyberbullying (two-day lesson)
Objectives:
• Academic: Design an informative or explanatory text about cyberbullying
• Academic: Identify important information to educate others about cyberbullying
• Technology: Utilize multimedia sources to insert images and captions
• Technology: Demonstrate inserting a footnote to cite sources
• Technology: Demonstrate correcting grammatical and punctuation errors using the Spelling and Grammar tool

Unit 3: Microsoft® PowerPoint
This unit explores common uses for Microsoft® PowerPoint in an educational setting while utilizing real-world applications. Students will research a variety of topics relating to natural disasters and history, with emphasis on the Progressive Era. Students will analyze information using concept maps and incorporating SmartArt graphics and text. Digital enhancements will be examined through the use of timelines and photos.

Objectives:
• Research, analyze, and identify key information on natural disasters and the Progressive Era
• Create multi-dimensional digital presentations using the Photo Album feature and text and images to illustrate a timeline
• Utilize SmartArt graphics to create concept maps in order to organize information within presentations

**Lesson 1: Natural Disasters (two-day lesson)**

Objectives:
- Academic: Identify several types of natural disasters
- Academic: Conduct in-depth research into one natural disaster
- Technology: Utilize Microsoft® PowerPoint to create an informative presentation about a natural disaster
- Technology: Integrate Action buttons, images, and text boxes to create multidimensional slides in a presentation about a natural disaster

**Lesson 2: Today in History (two-day lesson)**

Objectives:
- Academic: Outline historical events in chronological order
- Academic: Utilize visual aids to enhance presentations
- Technology: Create a historical timeline, utilizing transitions between slides in Microsoft® PowerPoint
- Technology: Incorporate animations into a timeline

**Lesson 3: Historical Points of View**

Objectives:
- Academic: Explore the history of the women’s suffrage movement in the United States of America
- Academic: Examine political cartoons to understand differences in opinion
- Technology: Create a Microsoft® PowerPoint presentation of the women’s suffrage movement using the Photo Album feature
- Technology: Provide analysis of images from the women’s suffrage era in a digital presentation

**Lesson 4: Progressive Era**

Objectives:
- Academic: Identify key issues and themes of the Progressive Era
- Academic: Describe aspects of the Progressive Era utilizing a concept map
- Technology: Create a concept map by inserting and formatting a SmartArt graphic in a Microsoft® PowerPoint presentation

**Lesson 5: Technology for Publishing: Progressive Era (two-day lesson)**

Objectives:
- Academic: Analyze and research reforms of the Progressive Era
- Academic: Create a concept map based on research about a Progressive Era topic
- Technology: Search for historical prints and photographs using the Library of Congress database
- Technology: Construct a presentation about the Progressive Era incorporating slide transitions and animations

**Unit 4: Microsoft® Excel**

This unit explores common uses for Microsoft Excel in an educational setting while utilizing real-world applications. You will explore, create, and input various data sets to conduct trend and frequency analyses. You will reorganize and reevaluate two-variable data sets to explore relationships. At the end of the unit, you will conduct a survey and analyze the data by creating and formatting scatter plots and trend lines to show negative and positive correlations.

Objectives:
- Investigate common trends within scatter plot diagrams to analyze information
- Modify two-variable data to support further data analysis
- Create a digital database to analyze information
- Analyze and compare data frequencies among multiple sets of data
Lesson 1: Scatter Plots

Objectives:
- Academic: Create a scatter plot in order to visualize relationships within data
- Academic: Identify and name ordered pairs on a scatter plot using the x- and y-axes
- Technology: Examine data organized in columns and rows in Microsoft Excel
- Technology: Build a scatter plot diagram in Microsoft Excel using given coordinates
- Technology: Interchange the x- and y-axes of a scatter plot in Microsoft Excel

Lesson 2: Scatter Plots: Comparing Variables

Objectives:
- Academic: Create and analyze data in scatter plot diagrams
- Academic: Investigate common trends within scatter plot diagrams
- Technology: Analyze a scatter plot diagram
- Technology: Utilize Microsoft® Excel to create a data table

Lesson 3: Scatter Plots: Trend Lines

Objectives:
- Academic: Explore the relationship between a country’s land area and population
- Academic: Identify and describe reasons for outliers along a trend line
- Technology: Create a digital scatter plot to analyze trends
- Technology: Insert a trend line into a scatter plot to determine negative or positive correlation

Lesson 4: Creating a Database

Objectives:
- Academic: Collect data in order to create a digital database
- Technology: Construct a database in Microsoft® Excel by entering data into fields and records
- Technology: Define and understand the purpose of fields (cells) and records (rows) in a database
- Technology: Reorganize and analyze data in a database using the sorting and filtering options

Lesson 5: Creating a Pivot Table

Objectives:
- Academic: Utilize an existing database to support further data analysis
- Technology: Create and modify a pivot table to analyze data
- Technology: Format data to display percentages and currency using the Format Cells window

Lesson 6: Frequencies

Objectives:
- Academic: Calculate frequencies within a set of data
- Academic: Interpret data trends using a histogram
- Technology: Create a histogram using the column chart option in Microsoft® Excel

Lesson 7: Data Analysis (two-day lesson)

Objectives:
- Academic: Create and conduct an original survey
- Academic: Interpret survey data using tools in Microsoft® Excel
- Technology: Create and analyze a scatter plot using original data
- Technology: Enter original data into a worksheet in Microsoft Excel

Unit 5: Study Strategies
This unit explores necessary study strategies using digital technology enhancements. Students will examine time management, study, and test-taking techniques to support academic success.

Objectives:
- Identify time management skills
- Utilize various types of graphic organizers as study aids
- Examine five types of test-taking strategies
- Align study strategies with educational goals

Lesson 1: Tools for Organization and Time Management
Objectives:
- Identify time management skills
- Create a planning tool to manage time
- Identify time management areas of improvement

Lesson 2: Idea Organization Using Graphic Organizers
Objectives:
- Evaluate the usefulness of a digital graphic organizer
- Analyze idea organization for a Google Earth tour by exploring the tool in terms of your hometown

Lesson 3: Idea Organization Using Memory Aids
Objectives:
- Generate memory aids for academic concepts
- Differentiate between various types of memory aids

Lesson 4: Learning Through Games and Simulations
Objectives:
- Examine personal learning gain through an online science game
- Assess the value of online games and simulations for learning

Lesson 5: Study Strategies
Objectives:
- Identify current study habits
- Construct a presentation on study strategies

Lesson 6: Test-Taking Strategies
Objectives:
- Examine test-taking strategies for five types of test
- Prepare concise summaries of test-taking strategies

Lesson 7: Goal Setting (two-day lesson)
Objectives:
- Identify objectives to reach educational or career goals
- Devise a goal-planning presentation based on academic study skills

Unit 6: Internet Safety
This unit explores the use of cyber communities. Students will examine guidelines for computer and cyber citizenship, risks associated with Internet use, and copyright laws.

Objectives:
- Explore guidelines for cyber citizenship
- Investigate risks associated with Internet use
- Explore different ways that media can be used to convey messages
- Describe the effects of copyright laws on producers and consumers
- Utilize appropriate referencing techniques

Lesson 1: Acceptable Use Policy
Objectives:
- Identify important features of an Acceptable Use Policy
• Review the school’s Acceptable Use Policy

Lesson 2: Proactive Protection Online

Objectives:
• Identify the basic risks associated with Internet use
• Illustrate knowledge of a chosen Internet security topic
• Create a presentation conveying an Internet security topic
• Develop an understanding that those met online are strangers

Lesson 3: Cybersafety and Photo Management

Objectives:
• Identify appropriate behavior for photo management on the Internet
• Recommend alternative actions for cybersafety scenarios

Lesson 4: Your Digital Footprint

Objectives:
• Differentiate between active and passive digital footprints
• Identify reasons why digital footprints matter
• Create an informative brochure about digital footprints

Lesson 5: Cyberbullying

Objectives:
• Gain a basic understanding of cyberbullying through reading and discussion
• Summarize theme and key learning points from a story in a Microsoft® PowerPoint presentation
• Discuss strategies for coping with an online bullying situation

Lesson 6: Computer and Internet Health Issues

Objectives:
• Explore health issues that result from prolonged computer usage
• Identify strategies to maintain health and body while using digital technologies

Lesson 7: Media Literacy

Objectives:
• Define media literacy
• Identify sources of bias in media
• Create a media product to promote media literacy

Lesson 8: The Power of Media

Objectives:
• Identify media sources
• Define and assess public service announcements (PSAs)
• Understand the power the media have in changing perceptions and behavior
• Utilize media to put a message out

Lesson 9: Predator Awareness

Objectives:
• Identify online behavior that is unsafe, demonstrating an understanding of how to avoid online predators
• Understand the grooming process as it relates to online predators
• Promote Internet usage related to predator awareness

Lesson 10: Cyber Community Citizenship

Objectives:
• Define communities in both the physical and virtual worlds
• Evaluate website safety and appropriateness
Lesson 11: Creation and Copyright

Objectives:
- Categorize tangible and intellectual property
- Develop an understanding of online piracy
- Explain the importance of obeying copyright laws

Lesson 12: Music Makers: Scripts

Objectives:
- Recognize terminology related to copyrights in the music industry
- Describe the effects of copyright laws on a group of people

Lesson 13: Plagiarism

Objectives:
- Define plagiarism and paraphrase
- Illustrate ways to avoid plagiarism

Lesson 14: Fair Use

Objectives:
- Identify fair use and recommend actions for its application
- Create a poster of tips for copyright rules and fair-use exceptions

Lesson 15: Integrated Literacy (two-day lesson)

Objectives:
- Review security concepts related to the online community
- Plan and prepare the components of an educational story
- Write a story relating online safety measures to a younger audience

Unit 7: Digital Publishing

This unit explores the impact of technology on the world. You will conduct research as an advocate for the use of technology in education, design a logo for that cause, and create a movie to convince others that technology is a vital aspect to building stronger schools. As a culminating activity, you will participate in a class discussion to showcase your knowledge and provide your peers with feedback.

Objectives:
- Research and advocate the use of technology in education
- Explore different ways that media can be used to convey messages
- Design and produce a multimedia project that integrates the basic elements of design to communicate research
- Utilize collaboration software to participate in a peer review

Lesson 1: Exploring a Topic

Objectives:
- Investigate the impact that technology has had on education
- Utilize Boolean search operators to conduct research

Lesson 2: Investigating Design

Objectives:
- Identify and define elements of design
- Analyze how the design element was used to create a logo
- Apply various design elements within a digital project

Lesson 3: Creating a Movie (two-day lesson)

Objectives:
- Design an informative presentation using movie software to communicate the impact of technology on education

Lesson 4: Collaborating Online

Objectives:
- Evaluate and provide feedback on student work
Lesson 5: Evaluating the Product (two-day lesson)

Objectives:
- Conduct a self-assessment of a project based on the criteria presented in a rubric
APPENDIX A
CURRICULUM

A.2 COURSE GUIDES

h. ADVANCED PLACEMENT®
This document is part of Appendix A: Curriculum.

It includes syllabi for the Advanced Placement courses that will be provided at Reach.

- Advanced Placement® Art History
- Advanced Placement® Biology
- Advanced Placement® Calculus AB
- Advanced Placement® Calculus BC
- Advanced Placement® Computer Science A
- Advanced Placement® English Language and Composition
- Advanced Placement® English Literature and Composition
- Advanced Placement® Environmental Science
- Advanced Placement® Human Geography
- Advanced Placement® Macroeconomics
- Advanced Placement® Microeconomics
- Advanced Placement® Psychology
- Advanced Placement® Spanish Literature & Culture
- Advanced Placement® Statistics
- Advanced Placement® U.S. Government & Politics
- Advanced Placement® U.S. History
ADVANCED PLACEMENT®
ART HISTORY
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Curricular Requirements

CR1a  Students and teachers use a college-level art history textbook.
   • See page 1

CR1b  Students and teachers use primary sources of different types.
   • See pages 1, 5, 7, 8, 9, 13

CR1c  Students and teachers use secondary sources.
   • See pages 1, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13

CR2  The big ideas and essential questions in the *AP Art History Course and Exam Description* are used as a conceptual foundation for the course.
   • See pages 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12

CR3  Each of the 10 AP Art History content areas in the *AP Art History Course and Exam Description* receives explicit attention.
   • See pages 2, 3, 4, 5, 6, 8, 9, 10, 11, 12

CR4  Students have opportunities to engage with all 12 course learning objectives in the *AP Art History Course and Exam Description* through specific assignments and activities.
   • See pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

CR5  Students are provided opportunities to analyze works of art both visually and contextually.
   • See pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

CR6  Students are provided opportunities to analyze interpretations of works of art from primary or secondary sources.
   • See pages 2, 3, 4, 6, 7, 8, 9, 10, 12, 13

CR7  Students are provided opportunities to analyze relationships between works of art across cultures and from different content areas.
   • See pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

CR8  Students have opportunities to use enduring understanding and essential knowledge statements as a foundation to conduct research on a specific work of art.
   • See pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 12

CR9  Students are provided opportunities to experience actual works of art or architecture.
   • See pages 5, 9
AP Art History Syllabus

"A lot of people come from elsewhere, the idea of an authentic singular culture is a modern myth."—Yinka Shonibare

Course Description
Within AP Art History, students will explore the interconnections between art, culture, and historical context using critical analysis through the critical lenses of artistic expression, cultural awareness, and purpose. Using a defined art historical skill set and reflective learning, students will analyze relationships across cultures with a global lens. The examination of how people have responded to and communicated their experiences through art will enable students to think conceptually about art ranging from prehistoric to contemporary. Students will be active participants, engaging with art and its context as they read, research, and collaborate to learn about art, artists, art making, and responses to and interpretations of art. [CR2]

Resources:

The AP Art History Framework
[CR2]

Supplementary Sources:
Primary Sources: Sources that originate with or are contemporary with the works of art under discussion (i.e., written documents, performances on video, interviews).
Secondary Sources: Sources written by scholars (i.e., journal articles, scholarly videos, museum interpretive materials).
Students are provided and expected to consider primary sources, articles, and excerpts that provide a comprehensive examination, interpretation, and exposure to other contrasting thoughts and ideas about art and architecture including:

- Museum of Modern Art
- The Guggenheim Museum
- The Web Gallery of Art
- National Gallery of Art
- The Tate Museum
- The British Museum
- Metropolitan Museum of Art
- Artcyclopedia
- Art Lexicon
- Gardner Audio Pronunciation Guide
- Art History Resources

[CR1b, CR1c]
Gallery One—Introduction to Art History [CR3] 16 days

"Art is not what you see, but what you make others see."—Edgar Degas

Gallery Essential Questions [CR2]
What is art and how is it made?
Why and how does art change?
How do we describe our thinking about art?

Enduring Understanding 1-1, 1-2, 1-3
- Students are introduced to Art History through the introduction to the AP Art Framework—Big Ideas, Essential Questions, Enduring Understanding statements, and Essential Questions; comparison of aesthetics and art history and the goals of art historical study; an introduction to contextual analysis of art; an exploration of themes and subthemes; and application of the Big Ideas and Essential Questions to an artwork. Students complete a multiple-choice diagnostic exam. (LO 1.1) [CR2]
- Formal analysis of art and the differences between formal and contextual analysis are introduced. Students apply formal and contextual analysis to research #7 Jade cong using resources beyond the provided sources within the course in order to examine 1-1a, 1-1b, 1-2a, 1-2c, and 1-3c Essential Knowledge statements. (LO 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 3.2, 3.3) [CR7, CR6, CR8]
- A breakdown of the College Board AP Art History Exam is provided to help students understand how the course assessments will emulate components of the May exam. An examination of provided prompts and rubrics leads students in the practice of breaking down prompts against a rubric to understand how their work will be scored. Students dissect the components of a prompt to demonstrate their understanding of how to achieve success. (LO 1.1, 2.1) [CR2]
- The examination of architecture, architectural floor plans, and the connection between the two are introduced. Students are provided generic architectural plans to discuss and compare how floor plans exemplify the function of the structures and the culture they were created within. Students complete a short response assessment to identify the art historical period of a given structure and analyze how the formal qualities of both the plan and the exterior exemplify the style of that art historical period. (LO 1.1, 1.3, 1.4, 2.2) [CR5, CR7]
- A discussion of Geological eras that define periods before written record is presented to help students understand the contextual and formal elements of art as it spread from Africa in the Paleolithic, Mesolithic, and Neolithic eras. The role of stratigraphic archaeology in art historical studies is examined. Students complete a lesson-level multiple-choice quiz. (LO 1.1, 1.3, 1.4, 2.1, 3.4) [CR5]
- Students are provided a long response prompt, written response, and corresponding rubric to score the response. Students discuss their evaluation with direct references to the response and rubric to support their scoring. (LO 1.1, 1.3, 1.4, 2.1, 3.1, 3.3, 3.5) [CR4]
- Students complete a multiple-choice exam modeled on the College Board AP Art History Exam. Each question prompts students to apply art historical skills, including contextual understanding and in-depth knowledge of specific works of art from the curriculum, to demonstrate achievement. (LO 1.1, 2.3, 3.1, 3.2, 3.3, 3.5) [CR7]

Resources
Newton, Douglas. “Figure of a divinity (tino).” Joseph Freed and Associates, LLC. The Sullivan Center. [CR1c]

Gallery Two—Indigenous Americas [CR3] 15 days

"The aim of art is to represent not the outward appearance of things, but their inward significance."—Aristotle

Gallery Essential Questions [CR2]
How do artists communicate religious beliefs and practices?
How is the difference between natural and the supernatural depicted?
How can art and architecture communicate a patron's power?

Enduring Understanding 5-1, 5-2, 5-3, 5-4, 5-5
• The Indigenous Americas are introduced through discussion of how varied manifestations of a sacred space reflect and are designated by its cultural and religious context, purpose, and function. Students complete a long response assessment using visual and contextual evidence to discuss art and architecture that reflect sacred themes. (LO 1.3, 1.4, 2.1, 3.2, 3.3, 3.5) [CR5, CR7]
• Students examine the Mayan culture to gain an understanding of how the lack of cultural context leads to misinterpretation of cultural and artistic rituals. Imagery that represents pain and suffering with a cultural or religious intention is compared and contrasted. Students apply formal and contextual analysis to research #163 Bandolier bag and #233 Trade (Gifts for Trading Land with White People) using resources beyond the provided sources within the course in order to examine 5-1b, 5-2a, 5-2d, 5-3b, and 5-5e Essential Knowledge statements (LO 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 3.2, 3.3) [CR5, CR6, CR8]
• A discussion of cultural and artistic characteristics of the Andean region cultures leads an examination of architectural function as a representation of the terrestrial, power, and social hierarchy. Students complete a lesson-level multiple-choice quiz. (LO 1.3, 1.4, 3.2, 3.5) [CR5]
• Students investigate the cultural and artistic characteristics of the Native North American region through discussion of the representation of the transformative experience of the shaman within art that is aesthetic, functional, and participatory and how sacred structures are misconstrued as marks of solar events. Students analyze the European cross-cultural influence on indigenous cultures, artworks, and the architecture produced, and the reaction of the indigenous cultures to preserve their cultural art. Students complete a short response using specific visual evidence to justify their attribution of an artwork to the artist or culture that created it, and then comparing two works and the naturalistic representations of deities. (LO 1.3, 1.4, 3.2, 3.3, 3.4, 3.5) [CR4, CR5]
• Students will use the three Big Ideas and three Essential Questions to investigate and compare two artworks that communicate power and authority through the use of materials to discuss how this communication reflects the culture of the artworks. (LO 1.1, 1.3, 1.4, 2.1, 3.1, 3.3, 3.5) [CR3, CR5, CR7]
• A two-part exam is modeled after the College Board AP Art History Exam. Part A is comprised of multiple-choice questions, and Part B contains both a short and a long response question. Each question prompts students to apply art historical skills, including contextual understanding and in-depth knowledge of specific works of art from the curriculum, to demonstrate achievement. (LO 1.3, 1.4, 3.2, 3.3, 3.4, 3.5) [CR4, CR5, CR7]
Resources

Gallery Three—Asia [CR3] 17 days

“All religions try to benefit people, with the same basic message of the need for love and compassion, for justice and honesty, for contentment.”—Dalai Lama

Gallery Essential Questions [CR2]
How is art and architecture evidence of cross-cultural connections and influences?
How are religious beliefs and practices represented within art and architecture?
How does patronage influence artistic and architectural production?

Enduring Understanding 7-1, 7-1, 7-3, 7-4, 8-1, 8-2, 8-3, 8-4

- Students are introduced to Islam, its religious foundations, connection to sacred monuments, aniconism, and how the architectural elements of a mosque serve to accommodate the needs of the practitioners. Students investigate how other cultures impacted Islamic architecture, and how Islam conversely impacted the architecture of other cultures. Students complete a short response assessment using specific visual evidence to attribute and justify architecture to the patron or culture that created it and how it demonstrates the function or purpose designated by the patron or culture. (LO 1.1, 1.3, 1.4, 2.1, 3.4) [CR4, CR5]

- Students examine calligraphy as sacred text to affirm and spread religious beliefs and support Islamic aniconism. This is contrasted with calligraphy used in luxury arts such as manuscript paintings, ceramics, textiles, and metalwork as examples of both the range and quality of Islamic skill. The influence of Islamic art on surrounding cultures and the artwork produced as a result are discussed. The production of sacred Islamic architecture in non-Islamic regions is explored. Students apply formal and contextual analysis to research #203 Night Attack on the Sanjô Palace and #235 Rebellious Silence using resources beyond the provided sources within the course in order to examine 7-1b, 7-3c, and 8-1c Essential Knowledge statements. (LO 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.2, 3.3) [CR5, CR6, CR7, CR8]

- Hinduism is introduced and compared with Islam. Students examine Hindu cultural and religious ideas through the cultural background of polytheism, narratives of Hindu deities, deity-specific iconography, and sensuality to represent natural abundance. Buddhism is introduced and contrasted with Hinduism, and the influence of Buddhism on Hinduism is examined. An investigation of Hindu temples and shrines assists in understanding sacred space and its function in rituals and worship. Funerary art and patronage are discussed to connect varied cultures thematically rather than geographically. Students complete a lesson-level multiple-choice quiz. (LO 1.3, 1.4, 2.3, 3.2, 3.5) [CR5, CR7]

- A deeper examination of Buddhism and its iconography is achieved through a contrast with Islam and Hinduism. Cross-cultural fertilization is revisited as students learn how the spread of Buddhism, its expansion, and its absorption of other religions through the Silk Route and trade were interconnected. Daoism is presented in connection with the technique of ink on silk, use of multiple perspectives, use of scale to represent belief, and connection with nature. Propagandistic techniques and the representation of the power of the patron and state in artworks and architecture are discussed. Confucianism is explored in conjunction...
with Confucian loyalty to the king and how the representation of nature’s power and symbolism is treated and perceived by different audiences. Students complete a long response assessment using specific visual or contextual evidence to analyze the similarities between two works in terms of how they exemplify cultural interaction and its influence on art and cultures. (LO 1.3, 1.4, 2.1, 2.3, 3.2, 3.3, 3.5) [CR5, CR7]

- Students identify and visit a sacred space in their community, take pictures of it, and investigate the religious and/or cultural needs that support the purpose of the space, identify the architectural elements that reflect the religion or culture it was created for, and compare it to sacred spaces encountered in the gallery. (LO 1.1, 1.3, 1.4, 2.1, 3.1, 3.3, 3.5) [CR4, CR5, CR7, CR8, CR9]

- Students complete a multiple-choice exam modeled on the College Board AP Art History Exam. Each question prompts students to apply art historical skills, including contextual understanding and in-depth knowledge of specific works of art from the curriculum, to demonstrate achievement. (LO 1.1, 2.3, 3.1, 3.2, 3.3, 3.5) [CR7]

- Students complete a long response assessment addressing tradition expressed within art and architecture. Once their responses are complete, they collaborate and exchange their written responses with a peer to evaluate each other’s work against the provided rubric to provide feedback to one another in support of improving their writing and understanding of how an AP Art History reader will rank their written responses on the College Board AP Art History Exam. (LO 1.3, 1.4, 2.1, 2.2, 3.1, 3.3, 3.4, 3.5) [CR4, CR5, CR7]

**Resources**


Asian Art Museum. Buddhist Cave Shrines of Longmen. [CR1c]

**Gallery Four—The Pacific [CR3] 9 days**

"An artist is a dreamer consenting to dream of the actual world."—George Santayana

**Gallery Essential Questions [CR2]**

How are groups of people defined by their relationship with the natural world?

How is this relationship depicted through their art?

How do artists intertwine the representation of human and animal forms to represent both the natural and supernatural?

**Enduring Understanding 9-1, 9-2, 9-3, 9-4**

- The Pacific cultures are introduced through their ecological situation, social structure, and external influences based on the classification by French explorer Jules Sebastien Cesar Dumont d’Urville’s assessment of geographical, racial, and linguistic distinctions. Recognizable trends in Pacific art are explored and explained by common origins and the influence of spiritual aspects like the Dreamings and animals. Students investigate the concepts of how mana and tapu are used to communicate and represent the power and status of a ruler, paralleled with the objects that symbolize power and the ritual nature of both their materials and creation. The use and ceremonial significance of tapa cloth are presented. Students complete a lesson-level multiple-choice quiz. (LO 1.3, 1.4, 3.2, 3.3, 3.5) [CR5]

- Students investigate media used in art of the Pacific, the sacred nature of creation, and how construction supports the use of the object as a representation of power and authority. The
wrapping of individuals and representations of deities to symbolize protection are explored in conjunction with mana. The concept of ancestors that represent protection and mediation within Oceanic groups is introduced, layered with the performance nature of masks, how masks adapt human and animal forms to depict natural and supernatural beings to create and preserve memory, and how the mask acts as an active channel to enable a dancer to become the spirit the mask embodies. Students apply formal and contextual analysis to research #218 Buk (mask), #229 A Book from the Sky, and #241 Pure Land using resources beyond the provided sources within the course in order to examine 9-1c, 9-3a, 9-3b, 9-4a, and 9-4d Essential Knowledge statements. (LO 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 3.2, 3.3) [CR5, CR6, CR7, CR8]

- Students investigate how Nan Madol, Machu Picchu, the Forbidden City, and the Palace at Versailles represent the power of the elite, are spaces that communicate power, and represent their patrons within their construction, materials, and location. Students complete a short response assessment using specific visual evidence to attribute the art historical period of a specific work of architecture and how it exemplifies the power and authority of the patron and/or of those who inhabited the architecture. (LO 1.1, 1.3, 1.4, 2.1) [CR5, CR7]

- Students research, identify, and discuss two artworks that represent how artists intertwine the representation of human and animal forms to symbolize both the natural and the supernatural. (LO 1.1, 1.3, 1.4, 2.1, 3.1, 3.2, 3.3, 3.5) [CR5, CR7]

- A two-part exam is modeled after the College Board AP Art History Exam. Part A is comprised of multiple-choice questions, and Part B contains both a short and a long response question. Each question prompts students to apply art historical skills, including contextual understanding and in-depth knowledge of specific works of art from the curriculum, to demonstrate achievement. (LO 1.3, 1.4 3.2, 3.3, 3.5) [CR4, CR5, CR7]

Resources
Aukland Art Gallery. Whakaahua Maori (Maori Portraits). [CR1c]

Gallery Five—Ancient Near East and Africa [CR3] 16 days

"If you do not know where you come from, then you don't know where you are, and if you don't know where you are, then you don't know where you're going. And if you don't know where you're going, you're probably going wrong."—Terry Pratchett

Gallery Essential Questions [CR2]
How does geography shape a culture’s worldview and values?
How is this depicted within the art and architecture created within that culture?

Enduring Understanding 2-1, 2-2, 2-3, 6-1, 6-2, 6-3, 6-4

- Students are introduced to the cultures of the Ancient Near East (SANBAN) through the transition of power and the reaction to and rejection of the previous culture. Students analyze the use of architecture as propaganda, a reflection of administrative authority, and representation of a sacred space. Art as propagandistic narration through the use of hierarchical scale and manipulation of figures through size and placement to convey power are investigated. Students complete a lesson-level multiple-choice quiz. (LO 1.3, 1.4, 3.2, 3.3, 3.5) [CR5, CR7]

- Egypt is introduced, compared, and contrasted with the cultures of the Ancient Near East. Egypt’s cosmology, religious practices, and political organization are discussed in the context of artistic innovations—registers, hierarchical scale, composite view, stylized
portraiture, and hieroglyphics. The Old and Middle Kingdoms are contextualized within the concepts of the afterlife, ka, and the funerary functions of art and architecture. Students investigate the portrayal of the afterlife within works to identify and understand Egyptian conventions of idealized depictions of gods and pharaohs in contrast with the realistic depiction of common beings. (LO 1.1, 1.4, 2.3, 3.2, 3.5) [CR5, CR7]

- The New Kingdom is analyzed through the use of mortuary and pylon temples and contrasted with tombs of the Old Kingdom. The meaning, narrative aspects, and function of the Book of the Dead are explored as a guidebook for the soul's difficult passage to the afterlife. The revolutionary nature and culture of the Amarna period is discussed, along with the influence of Akhenaten and the artistic and stylistic break from Egyptian conventions to convey lack of ruler divinity. Students investigate the reinstatement of Egyptian conventions and the return to traditional religion and artistic traits as evidenced in the artwork from Tutankhamun’s tomb. Students complete a short response assessment using specific visual and contextual evidence from an artwork and text from the Book of the Dead to analyze how both the quote and the artwork reflect the Egyptian views of death and afterlife. (LO 1.3, 1.4, 2.1, 3.2, 3.3, 3.5) [CR1b, CR5, CR6]

- Students are introduced to the cultures of Africa by addressing and dispelling the common cultural misconceptions that it is a single country with one people as compared to a vast continent with many peoples. The elements of a mosque are revisited to contextualize the re-appropriation and communication of sacred spaces. Students investigate the interconnectedness of religious and secular power along with the representation of power through figural representations that utilize facial expression, gesture, body language, and attitude as a symbolic representation of political power as a message to observers. Students explore figural representations and other symbols of power, like thrones, commissioned by leaders as evidence of chronological history and oral narrative traditions for future generations. (LO 1.1, 1.4, 2.3, 3.2, 3.5) [CR5, CR7]

- Students explore how memory is visualized or created through cultures in Africa that engage performance as a ritual component in both public and private rituals. The concepts of ritual specialists and the use of figures to connect humans to the supernatural world are presented, and students examine the role of figures in specific ritual and ceremonial practices. Students investigate the roles of masks as they are performed during ceremonies and rituals as symbols of both honor and change. Students examine the influence of African art in the 20th century. Students apply formal and contextual analysis to research #243 Darkytown Rebellion using resources beyond the provided sources within the course in order to examine 6-3a, 6-4a, and 6-4b Essential Knowledge statements. (LO 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 3.2, 3.3) [CR5, CR7, CR6, CR8]

- Students reflect on previous assessments, lesson quizzes, gallery exams, and practice exams to assess their strengths and areas in need of improvement for discussion of and preparation for their segment exam. (LO 1.1, 1.3, 1.4, 2.1, 3.1, 3.3, 3.5)

- A two-part segment exam is modeled after the College Board AP Art History Exam. Part A is comprised of multiple-choice questions, and Part B contains two short and one long response questions. Each question prompts students to apply art historical skills, including contextual understanding and in-depth knowledge of specific works of art from the curriculum, to demonstrate achievement. (LO 1.3, 1.4, 2.2, 3.2, 3.3, 3.5) [CR1b, CR4, CR5, CR6, CR7]

Resources


Humanities Web. *Hernán Cortés Quotations*. [CR1c]


**Gallery Six—Ancient Mediterranean [CR3]** 12 days

"I found Rome a city of bricks and left it a city of marble."—Augustus

**Gallery Essential Questions [CR2]**

How do stylistic elements represent a culture?

How are cultural influences and shifts represented within stylistic evolution?

**Enduring Understanding 2-4, 2-5**

- Students are introduced to the Aegean, Greek, Etruscan, and Roman cultures as foundational understanding of the subsequent influence they had on other cultures. Students explore major themes in Greek art and evaluate the evolution in statuary, architecture, architectural sculpture, painting, and pottery as a cultural representation throughout the stylistic periods of Greek art. Etruscan art and architecture are contextualized through trade with Greece and the Near East, emphasizing the styles the Etruscans assimilated and their absorption into Rome. The historical context of Rome, its transition from a republic to an empire, is presented to help students understand the stylistic elements of Roman architecture, painting, mosaics, and sculpture. Students complete a multiple-choice diagnostic exam. Students will formal and contextual analysis to research #37 *Winged Victory of Samothrace* using resources beyond the provided sources within the course in order to examine 2-4a, 2-4c, and 2-5b Essential Knowledge statements. (LO 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.2, 3.3) [CR5, CR6, CR8]

- Students explore the thematic connections of and influence of trade in Greek and Etruscan cultures in funerary art, figural representations, and sacred spaces, including the influence of external cultures like those of Egypt and the Orient. Students complete a short response assessment using specific visual and contextual evidence to connect a quote about the Hellenistic representation of the individual and the artwork provided to address how they both exemplify the characteristics of the Hellenistic period. (LO 1.1, 1.3, 1.4, 2.1, 2.3) [CR1b, CR5, CR6]

- Students explore the thematic connections of and influence of trade in Greek, Etruscan, and Roman cultures including propagandistic, realistic, and idealistic figural representations and the evolution of Roman painting styles. The sacred, civic, and domestic architecture of Rome and its unique characteristics and embellishments are explored. The evolution of portraiture is discussed. The use of narrative is explored in all three cultures, thematically connecting different mediums and functions. Students complete a lesson-level multiple-choice quiz. (LO 1.3, 1.4, 2.3, 3.2, 3.3, 3.5) [CR5, CR7]

- Students are provided two architectural examples to compare, use specific evidence to explain how one influenced the design, function, and setting of the other, and discuss how both complexes exemplify Greek ideas of order and rationality. They will write a response and rank it while reflecting on their response skills. (LO 1.1, 1.3, 1.4, 2.1, 3.1, 3.3, 3.5) [CR4, CR5]

- Students complete a multiple-choice exam modeled on the College Board AP Art History Exam. Each question prompts students to apply art historical skills, including contextual
understanding and in-depth knowledge of specific works of art from the curriculum, to
demonstrate achievement. (LO 1.1, 2.3, 3.1, 3.2, 3.3, 3.5) [CR7]

Resources
Bay, H. *Theatre*.  
Kline, A. *Ovid: The Metamorphoses*. [CR1b]  
Marie-Bénédicte, A. The "Sarcophagus of the Spouses"  
Department of Greek and Roman Art. "Death, Burial, and the Afterlife in Ancient Greece". In  
(October 2003) [CR1c]

Gallery Seven—Early Europe and Colonial Americas [CR3] 12 days

"We shape our buildings; thereafter they shape us."—Winston Churchill

Gallery Essential Questions [CR2]
How does patronage affect artistic and architectural production, and how are cultural exchanges
reflected in art?  
How are cultural exchanges reflected in art?

Enduring Understanding 3-1, 3-2, 3-3
- The cultural influence of Egypt, Greece, and Rome is examined in the Arabian region
  through an overarching introduction to and contextualization of the overlap of cultures,
  influences, and resulting architectural representations of religious beliefs after the fall of the
  Roman Empire beginning with Constantine and continuing with the evolution of Christianity.
  Students explore Byzantine and early Christian iconography, cultural context, tombs, and
  catacombs and connect stylistic elements that reflect Etruscan practices and Roman
  Second-Style painting. Students apply formal and contextual analysis to research #57 Pyxis
  of al-Mughira using resources beyond the provided sources within the course in order to
  examine 3-1a, 3-1b, and 3-2c Essential Knowledge statements. (LO 1.1, 1.2, 1.3, 1.4, 2.1,
  2.2, 2.3, 3.2, 3.3) [CR5, CR7, CR6, CR8]  
- Students compare and contrast the Jewish, Christian, and Islamic religions within their
  methods of worship as a base for the lesson. Iconography is revisited in context with the
  Iconoclastic controversy, Byzantine Christian Icon veneration, and manuscripts. Students
  explore migratory art, art of conversion, and narrative art in different mediums. Students
  complete a long response assessment using specific visual and contextual evidence to
  identify the intended audience of a work of art and describe and analyze how the artwork
  conveys a propagandistic agenda. (LO 1.3, 1.4, 2.1, 3.2, 3.3, 3.5) [CR5, CR7]  
- The cultural context of Romanesque and Gothic architecture is presented and compared to
  Buddhist and Islamic context and architecture. Pilgrimage and the search for relics are
  discussed with the interest in humanizing biblical figures in the Late Gothic period. The shift
  of bookmaking from monasteries to urban workshops is explored. Students complete a
  lesson-level multiple-choice quiz. (LO 1.3, 1.4, 3.2, 3.3, 3.5) [CR5, CR7]  
- Students identify and visit a structure that represents religious traditions and a civic structure
  that reflects classical influence in their community. For each structure, they create a floor
  plan, identify the principal materials, identify the components reflecting historical
  architectural influences, and analyze how it meets its intended function. (LO 1.1, 1.3, 1.4,
  2.1, 3.1, 3.2, 3.3, 3.5) [CR4, CR5, CR7, CR8, CR9]  
- A two-part exam is modeled after the College Board AP Art History Exam. Part A is
  comprised of multiple-choice questions, and Part B contains both a short and a long
response question. Each question prompts students to apply art historical skills, including contextual understanding and in-depth knowledge of specific works of art from the curriculum, to demonstrate achievement. (LO 1.3, 1.4, 3.2, 3.3, 3.5) [CR4, CR5, CR7]

Resources

Gallery Eight—Early Modern Atlantic World [CR3] 14 days

"If I am not mistaken, the words art and artist did not exist during the Renaissance and before; there were simply architects, sculptors, and painters, practicing a trade."—M.C. Escher

Gallery Essential Questions [CR2]
How are the historical developments of each period reflected in the art and architecture?

Enduring Understanding 3-3, 3-4, 3-5, 4-1

- The Renaissance is introduced and contextualized within the Crusades, cultural and economic exchanges, rise of urban culture, revival of Humanism, and the social upheaval of the Black Death. The transition from Gothic and classical influence is explored within characteristics of Renaissance architecture, and the continued progression of naturalism and symbolic representation is discussed within the context of Italy and Northern Europe. Students complete a short response assessment using specific visual evidence to attribute a given artwork to an artist, to justify the attribution, and to discuss how the work demonstrates the artist’s background and the influence of geographical artistic traditions. (LO 1.1, 1.3, 1.4, 2.1, 3.4) [CR4, CR5]

- The emotional aspects of Northern European art during the Renaissance are explored. Students investigate the Reformation and its impact on artistic production, including the increased demand for non-religious works. Works representative of the Italian Renaissance are explored specifically in terms of their use of narrative, chiaroscuro, perspective, realism, and naturalism. Mannerism, disegno, and colorito are introduced along with the cultural changes extended beyond Europe in Central America and Turkey during the Renaissance. Students apply formal and contextual analysis to research #67 Pazzi Chapel using resources beyond the provided sources within the course in order to examine 3-3a and 3-4c Essential Knowledge statements. (LO 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 3.2, 3.3) [CR5, CR6, CR8]

- Southern Baroque art and architecture are presented in context with the Counter-Reformation and the Scientific Revolution and in contrast to the opposing views of naturalistic and anti-Classical style or idealistic and classically inspired style. The evolution of religious spaces as they accommodate the needs of those who ministered and worshiped in them is contextualized in secular Baroque art. Portraiture and architecture intended to convey the power of the patron or ruler are explored. Students investigate the impact of the expeditions from Spain in art of the viceroy territories throughout the Indigenous Americas. Students complete a lesson-level multiple-choice quiz. (LO 1.3, 1.4, 3.2, 3.3, 3.5) [CR5]

- The historical context of the Enlightenment is presented through modes of expression. Rococo, Neoclassicism, and Romanticism are explored through their reflection of social, political, and cultural ideals of the time. Students complete a long response assessment using specific visual and contextual evidence to analyze, compare, and contrast two works
that convey religious meaning through symbolism. (LO 1.3, 1.4, 2.1, 3.2, 3.3, 3.5) [CR5, CR7]

- Students select two artworks from two selected categories including Dutch genre scenes, art reflective of the Counter-Reformation, art created for royal patrons, art reflective of international conflict, or art reflective of transoceanic colonization and trade. Students identify stylistic elements in each selected artwork to justify why it is representative of the category they selected. (LO 1.1, 1.3, 1.4, 2.1, 3.1, 3.2, 3.3, 3.5) [CR4, CR5, CR7]
- Students complete a multiple-choice exam modeled on the College Board AP Art History Exam. Each question prompts students to apply art historical skills, including contextual understanding and in-depth knowledge of specific works of art from the curriculum, to demonstrate achievement. (LO 1.1, 2.3, 3.1, 3.2, 3.3, 3.5) [CR7]

Resources
Katz, Jamie. The Measure of Genius: Michelangelo's Sistine Chapel at 500. Smithsonian.com April 9, 2009
Meisler, Stanley. A Masterpiece Born of Saint Anthony's Fire. [CR1c]
Schama, S. When stone came to life. [CR1c]

Gallery Nine—Later Europe Americas [CR3] 13 days

"Art must no longer be the expression of individual satisfaction, but should aim to become a fighting, educative art for all."—David Alfaro Siqueiros

Gallery Essential Questions [CR2]
How do works of art reflect the rapidly-changing modern world?
How are patronage, artistic training, artistic tradition, and perceived functions of art transformed in Europe and the America during this time period?
How do modern and contemporary artists respond to world events and social trends?

Enduring Understanding 4-2, 4-3
- Students dive in to the “isms”, the context and characteristics of Realism, Impressionism, Post-Impressionism, Symbolism, Fauvism, and Expressionism and the rapid change between each style as they reject and react to the previous style. Lithographs and sculpture are explored as propaganda. The concept and portrayal of the female form through the “male gaze” is analyzed. Students investigate portrayals of landscapes and the use of symbolism of different stylistic representations. Gothic-revival and innovations are discussed within architecture. Photography and its controversy are introduced. Students complete a lesson-level multiple-choice quiz. (LO 1.3, 1.4, 3.2, 3.3, 3.5) [CR5, CR7]
- Exploration of the context and characteristics of the “isms” continues with Cubism, Futurism, Dadaism, Suprematism, Constructivism, Abstraction, and Surrealism. Cubism and the varied impacting factors on the movement are discussed. Students explore the impact of Freud’s theories on art, the use of color as an emotional representation, and the use of art as social commentary. Students investigate the International style in architecture to compare it to styles that emphasize communion with nature. The social reactions of Dada and Surrealism are explored. Students complete a short response assessment using specific visual and contextual evidence to discuss the artist’s break from tradition and explain the personal and cultural significance of the work. (LO 1.1, 1.3, 1.4, 2.1) [CR5, CR7]
- The “isms” conclude with Postwar Expressionism, Abstract Expressionism, Minimalism, Abstract Expressionism, Pop Art, Superrealism, Performance Art, and Environmental Art. Students analyze the evolution of art as social commentary. The Abstract Expressionists’
representations of women revisit the concept of the “male gaze”. Social commentary within Pop Art is discussed. The influence of Oriental culture and the environment in modern art is assessed, and the continued change within architecture is examined. Students apply formal and contextual analysis to research #227 Summer Trees using resources beyond the provided sources within the course in order to examine 4-2a, 4-2c, 4-3a, and 4-3b Essential Knowledge statements. (LO 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 3.2, 3.3) [CR5, CR6, CR7, CR8]

- Students select two modern artworks that each represent one of the following themes: environmental art, portrayal of women, natural world, cultural commentary, or transoceanic colonization and trade. Students identify the formal and contextual elements that support the theme of each artwork and how the work reflects the culture it was created in. (LO 1.1, 1.3, 1.4, 2.1, 3.1, 3.3, 3.5) [CR4, CR5, CR7]

- A two-part exam is modeled after the College Board AP Art History Exam. Part A is comprised of multiple-choice questions, and Part B contains both a short and a long response question. Each question prompts students to apply art historical skills, including contextual understanding and in-depth knowledge of specific works of art from the curriculum, to demonstrate achievement. (LO 1.3, 1.4, 3.2, 3.3, 3.5) [CR4, CR5, CR7]

Resources
Davis, Ben. Two Fridas. Artnet Magazine.

Gallery Ten—Global Contemporary [CR3] 10 days

"I may be interested in a number of issues—identity, politics—but primarily I am an artist, and my job is to take people elsewhere."—Yinka Shonibare

Gallery Essential Questions [CR2]
How do contemporary artists move beyond traditional concepts about art and artists?
How do information technology and global awareness together shape contemporary art?

Enduring Understanding 10-1 and 10-2

- Students explore contemplative art that functions as environmental installations, propaganda, social commentary, expression of identity, and a reaction to culture, trade, and stereotypes. Students complete a lesson-level multiple-choice quiz. (LO 1.3, 1.4, 3.2, 3.3, 3.4, 3.5) [CR5, CR7]

- Students investigate video installations and digital art. Works in which artists appropriate media to explore and reflect power relationships, define the home and individual within society, address mass production, spiritual journey, immigration and its impact, and architectural domination and evolution are discussed. Students apply formal and contextual analysis to research #247 Preying Mantra using resources beyond the provided sources within the course in order to examine 10-1b, 10-d, 10-2a, 10-2c, and 10-2d Essential Knowledge statements. (LO 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.2, 3.3, 3.4) [CR5, CR6, CR7, CR8]

- Students reflect on previous assessments, lesson quizzes, gallery exams, and practice exams to assess their strengths and areas in need of improvement for discussion of and
preparation for their segment exam and the College Board AP Art History Exam. (LO 1.1, 1.3, 1.4, 2.1, 3.1, 3.3, 3.5)

- A two-part segment exam is modeled after the College Board AP Art History Exam. Part A is comprised of multiple-choice questions, and Part B contains two short and one long response questions. Each question prompts students to apply art historical skills, including contextual understanding and in-depth knowledge of specific works of art from the curriculum, to demonstrate achievement. (LO 1.3, 1.4, 2.2, 3.2, 3.3, 3.5) [CR1b, CR4, CR5, CR6, CR7]

Resources

- NewDigital Archive Museum. Dancing at the Louvre: Faith Ringgold’s French Collection and Other Story Quilts.
- Saatchi Gallery. Wangechi Mutu.
- Danto, Arthur C. Shirin Neshat. Bomb. [CR1b]
- Christo. Projects | The Gates.
- Wolfson, Elizabeth. The "Black Gash of Shame": Revisiting the Vietnam Veterans Memorial Controversy | ART21.
- Seed, J. Driving Mr. Basquiat.
- Marlborough Gallery. About Magdalena Abakanowicz.
ADVANCED PLACEMENT®
BIOLOGY
<table>
<thead>
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<th>Curricular Requirements</th>
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<tr>
<td>CR1 Students and teachers use a recently published (within the last 10 years) college-level biology textbook.</td>
<td>2, 6, 8, 10, 11, 13, 15, 16</td>
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<tr>
<td>CR2 The course is structured around the enduring understandings within the big ideas as described in the AP® Biology Curriculum Framework.</td>
<td>2, 6, 8, 9, 11, 13, 15, 16</td>
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<td>CR3a Students connect the enduring understandings within Big Idea 1 (the process of evolution drives the diversity and unity of life) to at least one other big idea.</td>
<td>6, 7, 9, 13, 15, 16</td>
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<td>CR3b Students connect the enduring understandings within Big Idea 2 (biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis) to at least one other big idea.</td>
<td>6, 8, 9, 10, 15</td>
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<td>CR3c Students connect the enduring understandings within Big Idea 3 (living systems store, retrieve, transmit, and respond to information essential to life processes) to at least one other big idea.</td>
<td>6, 11, 13, 15, 16</td>
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<td>CR3d Students connect the enduring understandings within Big Idea 4 (biological systems interact and these systems and their interactions possess complex properties) to at least one other big idea.</td>
<td>6, 7, 8, 9, 11, 12, 13, 15, 16</td>
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<td>CR4a The course provides students with opportunities outside of the laboratory investigations to meet the learning objectives within Big Idea 1.</td>
<td>7, 9, 14, 16, 17</td>
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<td>CR4b The course provides students with opportunities outside of the laboratory investigations to meet the learning objectives within Big Idea 2.</td>
<td>8, 9, 10</td>
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<td>CR4c The course provides students with opportunities outside of the laboratory investigations to meet the learning objectives within Big Idea 3.</td>
<td>12, 14</td>
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<td>CR4d The course provides students with opportunities outside of the laboratory investigations to meet the learning objectives within Big Idea 4.</td>
<td>14, 16, 17</td>
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<td>CR5 The course provides students with opportunities to connect their biological and scientific knowledge to major social issues (e.g., concerns, technological advances, innovations) to help them become scientifically literate citizens.</td>
<td>3, 16, 17</td>
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<td>CR6 The student-directed laboratory investigations used throughout the course allow students to apply the seven science practices defined in the AP Biology Curriculum Framework and include at least two lab experiences in each of the four big ideas.</td>
<td>3, 7, 8, 9, 10, 12, 14, 16</td>
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Course Overview
The course design supports the AP Biology Curriculum Framework. The content focuses on living systems and their connections to everyday life. The curriculum framework provides students with the opportunities to investigate the practical application of biology as well as the connections to other natural, human, and social sciences. Through inquiry-based activities and laboratory investigations, students explore the components of life, from molecules to ecosystems.

Textbooks/Resources
Each student has access to the investigations contained in *AP Biology Investigative Labs: An Inquiry Based Approach*, as well as other laboratory investigations as deemed necessary. We also recommend the Campbell and Reece *Biology* 9th Edition Active Reading Guide as a supplemental resource.

Teaching Strategies
AP Biology is structured around four Big Ideas (Evolution, Energy Processes, Information, and Interactions) described in the Curriculum Framework, which encompass the core scientific principles, theories, and processes governing living organisms and biological systems. At least one of the Big Ideas will be incorporated in every lesson throughout the course. [CR2] Because evolution is the foundation upon which the entire course is based, it will be referenced throughout the entire course, and science as a process will be threaded throughout both the investigations and the class activities outside of the investigations.

Students begin each lesson with a list of learning objectives and essential questions to guide them throughout the main points of each lesson and to frame students’ class notes. Students are encouraged to add to these notes, listing all questions that arise. Lessons may be based on multimedia resources from various sources (textbook, CDs, Internet, etc.) to help the students make critical connections between what they are learning and their everyday lives. Quizzes are interspersed throughout the module. These assessments provide information on how teachers may need to adjust instruction to improve student learning.

Students will have regular discussions with their instructor to apply biological, scientific knowledge and critical-thinking skills to major issues of social concern. During these discussions, students must explain the science and science processes being applied. In addition, students will need to be prepared to demonstrate their content mastery through a variety of assessment formats, some of which will be
informed by readings from recent scientific journals. Students will also be given the opportunity to see that biology is in their everyday lives and is not just a chapter in a textbook. [CR5]

Investigative Laboratory Component
Laboratory investigations make up a minimum of 25 percent of instructional time. [CR7] Students will conduct a minimum of eight inquiry-based investigations (two per Big Idea). [CR6] Supplemental labs and activities are also used to widen the range of topics covered in a hands-on, discovery mode. By undertaking a variety of investigations throughout the course, students will use all seven science practice skills on a regular basis with a goal of moving toward open-inquiry investigations. Students’ science practice skills need to be honed over the entire course and reinforced through opportunities to make observations, ask questions based on those observations, and investigate their own questions both in and out of the designated lab activities. It is critical to help students discover how the biological world works as we know it—and to learn how to investigate the biological world that is still unknown. That is why the investigations are a key to this entire course.

Students will maintain a written record (lab notebook and field notes) of investigations conducted. In addition, they will be asked for the following throughout the course: [CR8]

- Formal lab report that emphasizes the development and testing of a hypothesis, the ability to organize collected data, and the ability to analyze and clearly discuss the results.
- Multimedia presentations (create presentations with main investigation components, present the material, and field questions).
- Self-reflection of their ability to work in group investigations that will often be conducted in teams of two or three so that students develop group skills and learn the importance of collaboration among scientists.

Course Schedule
The following table describes how the enduring understandings/essential knowledge statements, learning objectives, and seven science practices are the focus of each unit within the course. Due to the reduction in required content for AP Biology, all sections of each chapter will not be covered and/or may be used for reference as needed. The included timeline is approximate. Assignments include many ways to meet the objectives (self-assessment, quizzes, readings, dry labs, wet labs, Free Response writing, projects, etc.), and a few of these activities have been elaborated upon to fully demonstrate the incorporation of curricular requirements. These assignments connect biological content across Big Ideas.
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<td>Big Ideas/Science Practices Matrix</td>
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<td>5. work collaboratively and scientifically to create evidence</td>
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**Getting Started**

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**Module 1: Evolution**

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<td>Photosynthesis and Cellular Respiration</td>
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<th>Module 4: Biological Responses</th>
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<td>Lab Design Activity: Plant and Animal Behavior</td>
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<td>Electrophoresis Virtual Lab</td>
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<td>Transcription and Translation</td>
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<td>Cell Communication</td>
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<td>Signal Transduction</td>
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Big Ideas and enduring understandings connect with science practice skills; thus all assignments will help students meet the learning objectives identified throughout the AP Biology Curriculum Framework.

Many of the Free Response questions used for practice also cross Big Ideas and apply various science practices (e.g., read/create graphs, calculate rate, apply mathematical formulas, analyze data to draw conclusions, etc.).

Module 0: Getting Started (2–4 days)

Reading: Getting Started lessons 1, 2, and 3, Course Syllabus, and College Board AP Central resources

Scientific Practices addressed: 1–7

Essential questions are presented here to demonstrate how the Big Ideas cross the entire curriculum:

• How do scientists work together to investigate the science behind the concepts of biology?
• How have scientists built upon the discoveries of other scientists to develop a more complete picture of the world around us?
• How are scientists able to test the validity of their ideas?

Topics:

Processes of science reviewed:

• Introduction to the AP Biology Curriculum Framework
• Connecting Big Ideas and enduring understandings with scientific practices
• Lab expectations and safety
• Scientific method, with emphasis on the fact that there is not one way to do science
• Scientific theory and investigation
• Scientific lab safety practices
• Practice with data collection, analysis, and presentation
Activities:
- AP Exam Requirements: self-assessment: emphasis on expectations for AP-level coursework and the AP Exam
- Nature of Science: self-assessment: emphasis on development of testable hypothesis; identification of independent, dependent, and controlled variables; procedure development; and data analysis using mathematics and graphing
- Graphing Practice: self-assessment: emphasis on fine-tuning graphing skills and presentation
- Experimental Design Activity: focuses on best practices in experimental design and provides students with criteria for successful completion

Module 1: Evolution (15–20 days) [CR2][CR3a][CR3b][CR3c][CR3d]


Enduring understandings to be addressed: 1B1, 1B2, 1D1, and 1D2
Scientific Practices addressed: 1.1–1.5, 2.1, 2.2, 3.1, 3.3, 4.1, 4.2, 4.4, 5.1–5.3, 6.1, 6.3–6.5, 7.1, 7.2

Essential questions are presented here to demonstrate how the Big Ideas cross the entire curriculum:
- How is the origin and evolution of life on Earth supported by evidence of conserved core processes and shared features?
- What is the role of natural selection in the evolution of a population?
- How can data reflect the evolutionary changes of a population over time?
- How can mathematical and biological data support the theory of evolution and analyze its mechanisms?
- How can extinction and speciation support predictions for future populations?
- How can we use models to represent evolutionary relationships?
- How does convergent evolution affect the field of taxonomy and the construction of a phylogeny?

Topics:
Evolution established as foundational theme [CR3a]
- Hypotheses about the origin of life on Earth
- Selection of ecological, physical, and chemical data that reveal early Earth conditions
- Conserved core biological processes and features that support the concept of common ancestry for all organisms
- Evolutionary changes in a population over time
- Natural selection
- Genetic drift, migration, and artificial selection
- Hardy-Weinberg equilibrium
- Speciation and extinction throughout Earth's history
- Phylogenetic trees and cladograms

Activities and Assignments [CR4a][CR6][CR8]:
- Tutorial: Natural Selection
- Tutorial: Mechanisms of Evolution
• Hardy-Weinberg Collaborative Lab: hands-on lab [CR7]
• Math problems for allele frequency and graphical analysis of data
• Tutorial: Defining Species
• Investigation: How do environmental changes affect a population?
• Investigation: The Uninvited Guest
• Tutorial: Constructing Phylogenetic Trees
• Cladograms and phylogenetic trees: Students will understand the nature of cladograms and phylogenetic trees based on various types of data; learn how to read and analyze cladograms and phylogenetic trees; and construct cladograms and phylogenetic trees from provided data. [CR3d]
• AP Practice: Grid-in Response and Reflection
• Comprehensive Module Discussion

Module 2: Cells and Homeostasis (15–20 days) [CR2][CR3b][CR3d]
Reading: e-Text sections [CR1]: 3.1–3.3, 4.1–4.2, 6.2–6.5, 7.1–7.5, 36.2 and supplemental lesson content and activities from lessons 2.01–2.05

Enduring understandings to be addressed: 2A3, 2B3, and 4A2
Scientific Practices addressed: 1.1, 1.4, 2.2, 3.1, 4.1, 6.2, 6.4, 7.1, and 7.2

Essential questions are presented here to demonstrate how the Big Ideas cross the entire curriculum:
• How do bonding, polarity, and other chemical properties determine the structure and properties of matter?
• How does structure facilitate function for each part of the cell?
• How does the unique structure and properties of cell membranes account for their broad impact on cell processes and transport?

Topics:
Energy Processes at the Cellular Level [CR3b]
• Properties of Carbon and Water
• Chemical Bonding
• Cell Structure and Function
• Biogeochemical Cycles
• Cell Membranes and Homeostasis

Activities and Assignments [CR4b][CR6][CR8]:
• Activity: Cohesion of Water
• Tutorial: Hydrogen Bonding in Water
• Activity: The Endomembrane System
• Tutorial: Tour of Animal Cells: Structure and Function
• Tutorial: Tour of Plant Cells: Structure and Function
• Activity: Prokaryotic Cell Structure and Function
• Video: Golgi Complex in 3D
• Video: Mitochondria in 3D
• Video: Chloroplast Movement
• Activity: Membrane Structure
• Membranes and Homeostasis Collaborative Lab: hands-on lab [CR7]
• AP Practice: Data-Based Questions and Reflection
• Comprehensive Module Discussion

Module 3. Capturing and Using Energy (20–25 days) [CR2] [CR3b] [CR3d]

Reading: e-Text sections [CR1]: 8.1–8.3, 9.1–9.6, 10.1–10.3, 40.3, 40.4, 53.3, 53.4, and 55.1–55.3 and supplemental lesson content and activities from lessons 3.01–3.06

Enduring understandings to be addressed: 2A1 and 2A2

Scientific Practices addressed: 1.4, 3.1, 6.1, 6.2, and 6.4,

Essential questions are presented here to demonstrate how the Big Ideas cross the entire curriculum:

- How does the amount of available free energy affect biological systems, from cells to ecosystems?
- How are the various chemical processes that occur within an organism organized and regulated?
- How are increased disorder and entropy offset by biological processes that maintain or increase order?
- How does the need for free energy influence the structures and functions of all living organisms?
- How do the structures and processes of plant and animal cells suit the needs for capturing, storing, and using free energy effectively?

Topics:

Capturing and Using Energy [CR3b]

- Energy and Living Systems
- Math Applications in Energy Transfer
- Energy Pathways
- Energy Processes
- Photosynthesis and Cellular Respiration

Activities and Assignments [CR4b] [CR6] [CR8]:

- Tutorial: Basic Energy Concepts
- Activity: Chemical Reactions and ATP
- Activity: Modeling Population Growth
- Interpreting Data: Net Primary Production
- Tutorial: Energy Flow through Ecosystems
- Activity: Consuming at Different Trophic Levels
- Math Practice: Trophic Levels and Energy Transfer
- Activity: Glucose Metabolism
- Tutorial: Thermoregulation
- Tutorial: Cellular Respiration
- Tutorial: Photosynthesis
- Tutorial: Energy Flow in Plants
- Short Essays on cycles
**Photosynthesis and Cellular Respiration Collaborative lab: hands-on lab [CR7]**

- AP Practice: Multiple Choice Strategies and Reflection
- Comprehensive Module Discussion

**Module 4. Biological Responses (25–30 days) [CR2] [CR3a][CR3b][CR3d][CR4a]**

**Reading:** e-Text sections [CR1]: 11.1, 11.5, 18.2–18.4, 24.1, 38.1, 39.2, 39.3, 39.5, 40.2, 40.3, 43.1–43.4, 44.1, 44.2, 51.1–51.4, 52.2, 53.1–53.5, 54.1–54.5, 55.1–55.4, and supplemental lesson content and activities from lessons 4.01–4.11

**Enduring understandings to be addressed:** 2C1, 2C2, 2D1, 2D2, 2D3, 2D4, 2E1, 2E2, and 2E3

**Scientific Practices addressed:** 1.1–1.4, 3.2, 4.1, 4.2, 5.1, 5.3, 6.1, 6.2, 6.4, 7.1, and 7.2

**Essential questions are presented here to demonstrate how the Big Ideas cross the entire curriculum:**

- How do various mechanisms allow organisms to respond to changes in their internal and external environment?
- How can various biotic and abiotic factors interact to affect biological systems such as cells, organisms, populations, and communities?
- How do adaptations in homeostatic mechanisms reflect both common ancestry and divergence?
- How have organisms evolved to defend themselves from attack by various forms of pathogens?
- How do various mechanisms work together to coordinate the specific events necessary for an organism's development?
- How do multiple mechanisms work together to regulate the timing and coordination of physiological events?
- How does the coordination of behaviors play a role in natural selection?

**Topics:**

**Biological Responses [CR3b]**

- Feedback and Mechanisms for Response
- Biotic and Abiotic Interactions
- Lab Design
- Homeostatic Mechanisms
- Chemical Defenses
- Regulation of Development
- Physiological Events
- Environment and Behavior

**Activities and Assignments [CR4b][CR6][CR8]:**

- Activity: Negative and Positive Feedback
- Activity: Homeostasis
- Activity: Experiment Critique
- Tutorial: Energy Flow in Ecosystems
- Experimental Inquiry: Can a species’ niche be influenced by interspecific competition?
- **Experimental Design: Abiotic and Biotic Interactions [CR7]**
- Activity: What do you need to consider when analyzing communities of organisms?
Module 5. Genetics (20–25 days) [CR2][CR3c][CR3d]


Enduring understandings to be addressed: 3A1, 3A2, 3A3, 3A4, 3B1, 4A3

Scientific Practices addressed: 1.1µ1.4, 2.2, 3.1, 4.1, 5.3, 6.2–6.5, 7.1, and 7.2

Essential questions are presented here to demonstrate how the Big Ideas cross the entire curriculum:

- How do eukaryotes pass on heritable information to the next generation of cells?
- How do Mendelian genetics and the chromosomal basis of inheritance help us understand the pattern of gene transmission from parents to offspring?
- How do scientists study the inheritance pattern of traits that cannot be explained by simple Mendelian genetics?
- How does the inheritance of organelle genes affect inheritance patterns?
- How are replicated DNA strands proofread and edited?

Topics:

- Cell Cycle and Mitosis
- Review cell Theory
- Cancer As a Disruption of Cell Cycle Control
- Mitosis and Meiosis
- Asexual and Sexual reproduction
- Rules of Probability
- Chromosomal Inheritance
- Dihybrid Cross Design
- Incomplete and Codominance
- Genetic Disorders
- Civic Issues in Genetics
Non-Mendelian Genetics
- Sex-Linked Genes

DNA and RNA
- Hershey-Chase Experiment
- Avery-McLeod-McCarty Experiments
- Microbial Genetics
- Coordination of Gene Control
- Inducers and Repressors
- DNA Replication
- Transcription and Translation
- Salient Features
- Genetic Engineering Techniques
- Microbial Genetics
- Gene Expression

Activities and Assignments [CR4c][CR6][CR3d][CR8]:
- Tutorial: Mitosis
- Tutorial: Meiosis
- Tutorial: Comparing Mitosis and Meiosis
- Activity: Asexual and Sexual Life Cycles
- Video: Mitosis vs. Meiosis
- Mitosis and Meiosis Lab [CR7]
- Dihybrid Cross Practice
- Tutorial: Mendel’s Law of Independent Assortment
- Tutorial: Chromosomal Mutations
- Pedigree Analysis: Galactosemia
- Tutorial: Inheritance in Fur Color of Mice
- Case Study Research with Peer Review Collaboration: Chromosomal Disorders
- Tutorial: Chromosomal Basis of Inheritance
- Investigative Case: X-Files
- Activity: The Hershey-Chase Experiment
- Activity: DNA Double Helix
- Activity: DNA and RNA Structure
- Tutorial: DNA Structure and Replication Machinery
- Tutorial: DNA: Synthesis of the Leading and Lagging Strands
- Activity: The Genetic Code
- Activity: RNA Synthesis
- Activity: Transcription
- Activity: Protein Synthesis
- Activity: Analyzing DNA Fragments Using Gel Electrophoresis
- Tutorial: DNA to RNA to Protein
- Electrophoresis Virtual Lab [CR7]
Activity: Regulation of Gene Expression in Bacteria
Creative Presentation: Interactions of External Stimuli and Gene Expression
Case Study: Shhh ... Silencing the Hedgehog Pathway
Comprehensive Module Discussion

Module 6. Transmission (15–20 days) [CR2] [CR3a] [CR3b][CR3c][CR3d]


Enduring understandings to be addressed: 3B2, 3C1, 3C2, 3C3, 3D1, 3D2, 3D3, 3D4, 3E1, 3E2, 4C1

Scientific Practices addressed: 1.1, 1.2, 1.4, 1.5, 3.1, 5.1, 6.1, 6.2, 7.1, and 7.2

Essential questions are presented here to demonstrate how the Big Ideas cross the entire curriculum:

- How can alterations of chromosome number or structure cause some genetic disorders?
- How do proteins work together in DNA replication and repair?
- How do mutations of nucleotides affect protein structure and function?
- How do genome sizes vary among the domains of life?
- How does genetic variation in sexual life cycles contribute to evolution?
- How are external signals converted to responses within a cell?
- How can sensory inputs stimulate simple and complex behaviors?
- How do neuron organization and structure reflect function?

Topics:
- Genotype to Phenotype
- DNA Mutations
- Pesticide Resistance Mutations
- Sickle Cell Disorder
- Genetic Variation
- Transformation, Transduction, Conjugation and Transposition
- Reproduction Processes That Increase Genetic Variation
- Viruses
- Viral Replication
- HIV
- Transduction in Bacteria
- Cell Communication
- Signal Transmission
- Chemical Messengers
- Pheromones
- Neurotransmitters
- Plant Immune Response
- Endocrine signals
- Signal Transduction Pathways
- Receptor Proteins
- G-protein Linked Receptors
- Receptor Tyrosine Kinases
- Signaling Cascades
- Effects of Neurotoxins, Poisons, and Pesticides
- Drugs That Effect Signal Transduction
- Information Exchange
- Herbivory Responses
- Territorial Marking
- Migration Patterns
- Pack Behavior in Animals
- Nervous System
- Na+/K+ Pumps
- Neurotransmitters
- Cerebral Hemispheres in Humans

Activities and Assignments [CR4a][CR4c][CR4d][CR6][CR8]:
- Activity: Mistakes in Meiosis
- Tutorial: Chromosomal Mutations
- Tutorial: Experimental Inquiry: Does DNA Replication Follow the Conservative, Semi-conservative, or Dispersive Model?
- Tutorial: Protein Synthesis: Translation and Protein Targeting Pathways
- Experimental Inquiry: Did Natural Selection of Ground Finches Occur When the Environment Changed?
- Creative product and explanation: illustration and an explanation how changes in DNA nucleotide sequence can result in the polypeptide produced
- Make Connections: Bacterial Conjugation
- Make Connections: Binary Fission
- Tutorial: Meiosis: Determinants of Heredity and Genetic Variation
- Activity: Retrovirus (HIV) Reproductive Cycle
- Essay with banked prompts: lysogenic cycle, lytic cycle, DNA viruses, RNA viruses, retroviruses
- Tutorial: Homeostasis: Regulating Blood Sugar
- Activity: Cell Signaling
- Activity: Reception
- Activity: Signal Transduction Pathways
- Activity: Build a Signaling Pathway
- Activity: Cellular Responses
- Essay: Based on prompt for Signal Transduction Pathways
- Video: Honeybee Waggle Dance
- Lab: Animal Behavior [CR7]
- Activity: illustration of nervous system processes
- Creative product: illustration and description about how the vertebrate brain integrates information to produce a response.
Comprehensive Module Discussion

**Module 7. Systems and Populations (15–20 days)** [CR2] [CR3a] [CR3b] [CR3c] [CR3d]

**Reading:** e-Text sections [CR1]: 5.1–5.4, 8.4, 8.5, 35.1, 36.1–36.3, 40.1, 41.2–41.4, 42.1–42.7, Chapter 53 Overview, 53.1–53.6, 55.1, 56.1, and supplemental lesson content and activities from lessons 7.01–7.07

**Enduring understandings to be addressed:** 4A1, 4B1, 4C1

**Scientific Practices addressed:** 1.3, 1.4, 2.2, 3.3, 4.1, 5.1, 6.1, 6.2, 6.4, and 7.1

**Essential questions are presented here to demonstrate how the Big Ideas cross the entire curriculum:**

- How do molecular interactions affect structure and function?
- How is the basic functioning of enzymes affected by its shape, active sites, and interaction with specific molecules and the environment?
- How does structure relate to function in living systems from the cellular to the organismic level?
- How do specialized organs contribute to the overall function of the organism?
- How do interactions between organ systems allow organisms to function more efficiently?
- How does an interruption in one system impact other systems and ultimately the organism?
- How do populations change?
- How can you use mathematical models to predict population trends?
- How can interactions among ecosystems result in movement of matter and energy?

**Topics:**

- Biochemistry
- Form and Function of Macromolecules
- System Interactions
- Digestion of Food
- Stomach and Small Intestines
- Roots, Stems, and Leaves
- Respiratory and Circulatory Systems
- Plant Vascular and Leaf Systems
- Form and Function of Organisms
- Populations and Communities
- Structure of Communities
- Population Growth Models
- Predator/Prey Relationships
- Demographics Data
- Ecosystems
- Energy and Matter Flow in Ecosystems
- Primary Productivity
- Ecosystem Limitations
- Human Impact on Ecosystems
- Adaptations of Organisms in Response to Environment

**Activities and Assignments [CR4a][CR4d][CR6][CR8]:**
Module 8. Change and Biodiversity (20–25 days) [CR2][CR3a][CR3c][CR3d]

Reading: e-Text sections [CR1]: 14.3, 23.1–23.3, 25.4, 54.1, 54.2, 56.1, 56.4, and supplemental lesson content and activities from lessons 8.01–8.07

Enduring understandings to be addressed: 4B3, 4B4, 4C2, 4C3, 4C4

Scientific Practices addressed: 5.2, 6.1, 6.2, 6.3, and 6.4

Essential questions are presented here to demonstrate how the big ideas cross the entire curriculum:

- How do human activities impact Earth’s biodiversity?
- How does Earth change as a result of human actions?
- How do geological and meteorological events impact diversity?
- How does nature and nurture impact phenotype?
• How does genetic variation make evolution possible?

Topics:
• Species Interactions
• Human Impact on Ecosystems
• Interactions between Populations
• Geological and Meteorological Events and Impact on Ecosystem Distribution
• Impacts on Biological Diversity
• Ecosystem Changes
• Environmental Influence on Genotype Expression
• Diversity and Dynamics
• Population Response to Environmental Change
• Biodiversity
• Species Richness vs. Relative Abundance
• Predicting Species Diversity in an Ecosystem

Activities and Assignments [CR4a][CR4d][CR6][CR8]:
• Activity: Introduced Species: Fire Ants
• Activity: The Greenhouse Effect
• Research/Position Paper: Ecosystem Changes [CR5]
• Activity: Adaptive Radiation
• Essay: Environmental Influence on Genotype Expression
• Lab: Data Analysis of Species Diversity [CR7]
• Lab: Population Genetics and Evolution [CR7]
• Comprehensive Module Discussion

Practice Tests; Semester Tests; Review of Course (10–15 days)
• Released FRQ items used throughout the course for practice
• Full-length, practice exam used for review purposes prior to the AP Exam.
• Review format and study plans determined by needs of students.
ADVANCED PLACEMENT®
CALCULUS AB
Advanced Placement Calculus AB

Primary Text

Course Long Plan

---Semester 1---

Unit 0: Preparation for Calculus Suggested Pace: 2 weeks

Topics
- Understanding the properties of real numbers and the number line
- Using the Cartesian coordinate system to graph functions
- Comparing relative magnitudes of functions – contrasting exponential, logarithmic and polynomial growth

Content
- Orientation to course
- Graphs and models
- Linear models and rates of change
- Functions and their graphs

Major Assignments and Assessments
- Problem Sets
- Entry Quiz
- Oral Review: Discussion about using Calculator zoom features to examine a graph in a good viewing window and calculator operations to find the zeros of a graph and the point of intersection of two graphs
- Live Lesson Session: Tour of (i) College Board Student Website for AP (ii) Features of Textbook (iii) Tour of Course features.
- Quiz – Functions, Graphs, and Rates of Change

Unit 1: Limits and Continuity Suggested Pace: 2 weeks

Topics
- Intuitive understanding of limit process
- Calculating limits using algebraic methods
- Estimating limits using tables of data
- Estimating limits using graphs
- Understanding asymptotes graphically
- Describing asymptotic behavior in terms of limits involving infinity
Intuitive understanding of continuity
Understanding continuity in terms of limits
Understanding graphs of continuous or non-continuous functions geometrically

Content
Preview of calculus
Finding limits graphically and numerically
Evaluating limits analytically
Continuity and one-sided limits
Infinite limits

Major Assignments and Assessments
Problems sets
Quiz – Calculating Limits
Oral Review: Discussion about using the Calculator to experiment and produce a table of values to examine a function and estimate a limit as x approaches a point and as x grows without bound. Discussion about the limitation of a graphing calculator to show discontinuities in functions and the value of using a calculator to support conclusions found analytically.
Live Lesson Session: Discussion about conditions of continuity. Look at AP style FRQ on Continuity.

Test – Limits and Continuity

Unit 2: Differentiation Suggested Pace: 5 weeks

Topics
Derivative defined as the limit of the difference quotient
Graphic, numeric and analytic interpretations of the derivative
Knowledge of derivatives of power and trigonometric functions
Basic rules for the derivatives of sums, products, and quotients of functions
Derivative interpreted as instantaneous rate of change
Continuity and differentiability
Slope of curve at a point
Tangent line to a curve at a point
Local linear approximation
Instantaneous rate of change as the limit of average rate of change
Approximate rate of change from graphs and tables of values
Chain rule and implicit differentiation
Equations involving derivatives and problems using their verbal descriptions
Modeling rates of change and solving related rates problems

Content
The derivative and the tangent line problem
Basic differentiation rules and rates of change
The product and quotient rules
The chain rule
Implicit differentiation
Related rates

Major Assignments and Assessments
Problem sets
Quiz – Definition and computation of derivatives
Oral Review: Discussion about using a calculator to find the value of a derivative at a point, and how to graph the derived function using a calculator. Discussion about the limitations of the calculator to find the numerical derivative (for example, f′(0) for f(x) = |x|).
Live Lesson Session: AP style FRQs on Related Rates – interpretation of oral presentation of problems and writing out solutions correctly including using sentences.

Test – Differentiation

Unit 3: Applications of Differentiation Suggested Pace: 6 weeks

Topics
- Corresponding characteristics of graphs of f and f′
- Relationship between the increasing and decreasing behavior of f and the sign of f′
- Corresponding characteristics of graphs of f, f′, and f′′
- Relationship between the concavity of f and the sign of f′
- Points of inflection as places where concavity changes
- Mean Value Theorem and geometric consequences.
- Analysis of curves including monotonicity and concavity
- Optimization – absolute and relative extrema.
- Equations involving derivatives and problems using their verbal descriptions

Content
- Extrema on an interval
- Rolle’s Theorem and the Mean Value Theorem
- Increasing and decreasing functions
- Concavity and the second derivative test
- Limits at infinity
- Curve sketching
- Optimization
- Differentials

Problem sets
Quiz – Extrema and Concavity
Oral Review: Discussion about using the calculator to find the critical values of a function by examining the graph of the function and the graph of the function’s derivative.
Live Lesson Session: AP style questions on interpretation of the graphs of f ‘ and f and written description of analysis of functions.
Test – Applications of Derivatives
Semester Exam

---Semester 2---

Unit 4: Integration Suggested Pace: 3 weeks

Topics
Definite integral as a limit of Riemann sums
Definite integral of the rate of change of a quantity over an interval interpreted as
the change of the quantity over the interval:

\[ \int_{a}^{b} f'(x) \, dx = f(b) - f(a) \]

Basic properties of definite integrals
Use of the Fundamental Theorem of Calculus to evaluate definite integrals
Use of the Fundamental Theorem of Calculus to represent a particular
antiderivative, and the analytical and graphical analysis of functions so defined
Find antiderivatives including the use of substitution
Finding specific antiderivatives using initial conditions, including applications to
motion along a line
Solving separable differential equations and using them in modeling
Use of Riemann sums and trapezoidal sums to approximate definite integrals of
functions represented algebraically, graphically and by tables of values

Content

Antiderivatives and Indefinite Integration
Kinematic Equations & Area
Riemann sums and definite integrals
The Fundamental Theorem of Calculus
Integration by substitution
Numerical integration
Application of definite integrals including area, volume,
position/velocity/acceleration and accumulation functions
The Integral as a function

Major
Assignments
and
Assessments
Problem Sets
Quizzes
Quiz – Integration and Area
Quiz – The Fundamental Theorem of Calculus
Oral Review: Discussion about using the calculator to estimate the value of a
definite integral and to support solutions derived analytically.
Live Lesson Session: AP style questions about analysis of functions defined in a
table of values. Students have opportunity to share their mathematical concepts
both verbally and in written form.
Test – Integration

**Module Unit 5: Transcendental Functions Suggested Pace: 3 weeks**

**Topics**
- Basic properties of definite integrals
- Use of the Fundamental Theorem of Calculus to evaluate definite integrals
- Use of implicit differentiation in finding the derivative of the inverse of a function
- Geometric interpretation of differential equations via slope fields
- Relationship between slope fields and solution curves for differential equations
- Knowledge of derivatives of exponential, logarithmic, and inverse trigonometric functions
- Basic properties of definite integrals
- Use of the Fundamental Theorem of Calculus to evaluate definite integrals
- Find antiderivatives including the use of substitution
- Application of integrals

**Content**
- The natural logarithmic function and differentiation
- The natural logarithmic function and integration
- Inverse functions including the relationship between the derivative of a function and its inverse at a point
- Exponential functions
- Bases other than e and applications
- Differential equations: growth and decay
- Differential equations: separation of variables
- Slope fields
- Inverse trigonometric functions and differentiation
- Inverse trigonometric functions and integration

**Major Assignments and Assessments**
- Problem sets
- Quiz – Natural Logarithmic Functions
- Quiz – Exponential Functions
- Quiz – Inverse Trigonometric Functions

Oral Review: Examine the limitations of the graphing calculator in graphing Natural Log functions. Students are required to verbally express the concepts related to the derivatives and integrals of exponential, logarithmic, and inverse trigonometric functions.

Live Lesson Session: Discussion of AP style questions on domain restrictions for solutions to Differential Equations and analysis of Slope Fields. Students are required to explain their mathematics both verbally using the audio feature and in written form on the whiteboard and chat area during this session.

**Unit 6: Applications of Integration Suggested Pace: 3 weeks**
Topics
Application of integrals – area and volume

Content
Area of a region between two curves
Volume

Major Assignments and Assessments
Problem Sets
Oral Review – Discuss setup on a graphing calculator to find volumes for functions that cannot be integrated by hand. Students are required to be able to explain how the calculator is used to assist with the integration portion of solving a volume problem.
Live Lesson Session: AP Style questions on area and volume that require a calculator to find the limits of integration. Students have opportunity to demonstrate their solutions to other members of the class as well as the teacher using the whiteboard, application sharing of MathType and Graphmatica solutions, and the audio feature during this session.
Test – Applications of Integration

Unit 7: Integration Techniques  Suggested Pace: 3 weeks

Topics
Techniques of Integration
Techniques for using Differentiation to find Limits

Content
Basic rules of integration
Integration by parts
Indeterminate forms and L'Hopital’s Rule

Major Assignments and Assessments
Problem Sets

Oral Review – Students must verbally demonstrate the ability to use a calculator generated table to show limiting values of functions and comparative rates of growth of functions.
Live Lesson Session: Examination of rates of comparable rates of growth of functions. Students have opportunity to demonstrate their solutions to other members of the class as well as the teacher using the whiteboard, application sharing of MathType and Graphmatica solutions, and the audio feature during this session.
Test – Integration Techniques

Unit 8: Exam Review Suggested Pace: 4 weeks

Topics
All previously noted topics

Content
Multiple Choice Practice Sets
Free Response Tutorials
Topic Explorations
Study Island

Major Assignments and Assessments
Review Question Sets
Practice Tests
Live Lesson Sessions: Online free response style question practice sessions. Discussion about format and grading of AP Exam approaches to problems using a numerical, analytical and graphical approach, preferred ways to communicate solutions in written form.
Oral Review: Calculator practice

Other Instructional Materials
Math Type – Math symbol creation software
Graphmatica – Graphing software
Adobe Live Lesson– Whiteboard, application sharing, voice, and video communication software
College Board approved calculator
2003 AP Calculus Released Exam Booklet
Previously released AP Calculus Free Response Questions
Study Island

Notes
This course is designed to be highly teacher facilitated. Instructors give specific and timely feedback for each of the 100 plus lessons. Students are required to complete one-on-one oral examinations with their teacher for each module unit, discussions with other students where they practice communicating their mathematical concepts verbally, and have opportunity to schedule whiteboard sessions with the teacher. Teachers conduct synchronous Adobe Live Lesson session(whiteboard, application sharing, audio and video sharing) that require students to practice critical thinking and analysis with free response type questions and present their work verbally to the teacher and other students during those sessions.

Each assignment gives students practice in communicating their mathematics in written form using sentences as well as symbols. The oral reviews done in each unit and the synchronous Live Lesson Sessions give students opportunities to express their understanding of mathematics verbally.

Most lessons include practice using the calculator as required for the AP exam. The students are informed in the first lesson of the type of calculator needed and the four
operations required to be used during the AP Exam. Students are required throughout
the course to give evidence of calculator proficiency. The required calculator operations
and techniques for using the calculator appropriately are discussed in the oral reviews of
each unit and in the synchronous Live Lesson Sessions as well as in 10 scheduled
one-on-one monthly phone conferences held between the teacher and each student.

This course is accompanied by an online tutorial and review that uses released AP
Exams. Students are given systematic and timed practice for all portions of the exam.
Students receive specific feedback on progress and mastery levels on the practice
exams.
ADVANCED PLACEMENT®
CALCULUS BC
AP Calculus BC Syllabus
Advanced Placement Calculus BC
Primary Text

Course Long Plan
---Semester 1---
Unit 0: Preparation for Calculus Suggested Pace: 1 week

Topics
Understanding the properties of real numbers and the number line
Using the Cartesian coordinate system to graph functions
Comparing relative magnitudes of functions – contrasting exponential, logarithmic and polynomial growth

Content
Orientation to course
Real numbers and the real number line
Cartesian plane
Graphs and models
Linear models and rates of change
Functions and their graphs

Major Assignments and Assessments
Problem Sets
Entry Quiz
Oral Review: Discussion about using Calculator zoom features to examine a graph in a good viewing window and calculator operations to find the zeros of a graph and the point of intersection of two graphs
Adobe Live Lesson session: Tour of (i) College Board Student Website for AP (ii) Features of Textbook (iii) Tour of Course features.
Quiz – Functions, Graphs, and Rates of Change

Unit 1: Limits and Continuity Suggested Pace: 1 week

Topics
Intuitive understanding of limit process
Calculating limits using algebraic methods
Estimating limits using tables of data
Estimating limits using graphs
Understanding asymptotes graphically
Describing asymptotic behavior in terms of limits involving infinity
Intuitive understanding of continuity
Understanding continuity in terms of limits
Understanding graphs of continuous or non-continuous functions geometrically

Content
Preview of calculus
Finding limits graphically and numerically
Evaluating limits analytically
Continuity and one-sided limits
Infinite limits

Major Assignments and Assessments
Problems sets
Quiz – Calculating Limits
Oral Review: Discussion about using the Calculator to experiment and produce a table of values to examine a function and estimate a limit as x approaches a point and as x grows without bound. Discussion about the limitation of a graphing calculator to show discontinuities in functions and the value of using a calculator to support conclusions found analytically.
Adobe Live Lesson session: Discussion about conditions of continuity. Look at AP style
FRQ on Continuity.
Test – Limits and Continuity

Unit 2: Differentiation Suggested Pace: 3 weeks
Topics
Derivative defined as the limit of the difference quotient
Graphic, numeric and analytic interpretations of the derivative
Knowledge of derivatives of power and trigonometric functions
Basic rules for the derivatives of sums, products, and quotients of functions
Derivative interpreted as instantaneous rate of change
Continuity and differentiability
Slope of curve at a point
Tangent line to a curve at a point
Local linear approximation
Instantaneous rate of change as the limit of average rate of change
Approximate rate of change from graphs and tables of values
Chain rule and implicit differentiation
Equations involving derivatives and problems using their verbal descriptions
Modeling rates of change and solving related rates problems
Content
The derivative and the tangent line problem
Basic differentiation rules and rates of change
The product and quotient rules
The chain rule
Implicit differentiation
Related rates

Major Assignments and Assessments
Problem sets
Quiz – Definition and computation of derivatives
Oral Review: Discussion about using a calculator to find the value of a derivative at a point, and how to graph the derived function using a calculator. Discussion about the limitations of the calculator to find the numerical derivative (for
example, \( f'(0) \) for \( f(x) = |x| \).

Adobe Live Lesson session: AP style FRQs on Related Rates – interpretation of oral presentation of problems and writing out solutions correctly including using sentences.

Test – Differentiation

**Unit 3: Applications of Differentiation**
Suggested Pace: 5 weeks

**Topics**
- Corresponding characteristics of graphs of \( f \) and \( f' \)
- Relationship between the increasing and decreasing behavior of \( f \) and the sign of \( f' \)
- Corresponding characteristics of graphs of \( f, f', \) and \( f'' \)
- Relationship between the concavity of \( f \) and the sign of \( f' \)
- Points of inflection as places where concavity changes
- Mean Value Theorem and geometric consequences.
- Analysis of curves including monotonicity and concavity
- Optimization – absolute and relative extrema.
- Equations involving derivatives and problems using their verbal descriptions

**Content**
- Extrema on an interval
- Rolle’s Theorem and the Mean Value Theorem
- Increasing and decreasing functions
- Concavity and the second derivative test
- Limits at infinity
- Curve sketching
- Optimization
- Differentials

**Major Assignments and Assessments**

- Problem sets
- Quiz – Extrema and Concavity
- Oral Review: Discussion about using the calculator to find the critical values of a function by examining the graph of the function and the graph of the function’s derivative.

Adobe Live Lesson session: AP style questions on interpretation of the graphs of \( f' \) and \( f \) a written description of analysis of functions.

Test – Applications of Derivatives

**Unit 4: Integration**
Suggested Pace: 3 weeks

**Topics**
- Definite integral as a limit of Riemann sums
- Definite integral of the rate of change of a quantity over an interval interpreted as

\[
F(x) = \hat{Q}(x) \int_a^b f'(x)dx
\]

the change of the quantity over the interval:
- Basic properties of definite integrals
- Use of the Fundamental Theorem of Calculus to evaluate definite integrals
- Use of the Fundamental Theorem of Calculus to represent a particular
antiderivative, and the analytical and graphical analysis of functions so defined
Find antiderivatives including the use of substitution
Finding specific antiderivatives using initial conditions, including applications to
motion along a line
Use of Riemann sums and trapezoidal sums to approximate definite integrals of
functions represented algebraically, graphically and by tables of values
Content
Antiderivatives and Indefinite Integration
Integration by substitution
Area
Riemann sums and definite integrals
The Fundamental Theorem of Calculus
Numerical integration using the Trapezoidal Rule
Application of definite integrals including area, position/velocity/acceleration and
accumulation functions
The Integral as a function

Major Assignments and Assessments
Problem Sets
Quiz – Integration and Area
Quiz – The Fundamental Theorem of Calculus
Oral Review: Discussion about using the calculator to estimate the value of a
definite integral and to support solutions derived analytically.
Adobe Live Lesson session : AP style questions about analysis of functions
defined in a table of values. Students have opportunity to share their
mathematical concepts both verbally and in written form.
Test – Integration and Applications

Unit 5: Transcendental Functions Suggested Pace: 3 weeks
Topics
Exponential functions
Bases other than e and applications
The natural logarithmic function and differentiation
The natural logarithmic function and integration
Inverse functions including the relationship between the derivative of a function
and its inverse at a point

Major Assignments and Assessments
Problem Sets
Quiz – Natural Logarithmic Functions
Quiz – Exponential Functions
Quiz – Inverse Trigonometric Functions
Oral Review: Examine the limitations of the graphing calculator in graphing Natural Log functions. Students are required to verbally express the concepts related to the derivatives and integrals of exponential, logarithmic, and inverse trigonometric functions.
Adobe Live Lesson session: Discussion of AP style questions that require a calculator to find the value of a derivative at a point and the value of a definite integral. Students are required to explain their mathematics both verbally using the audio feature and in written form on the whiteboard and chat area during this session.

Unit 6: Slope Fields and Differential Equations: 3 weeks
Topics
Slope fields
Euler’s Method as a numerical Solution of a differential equation
Differential equations: growth and decay
Differential equations: separation of variables
Differential equations: Logistical Models
Geometric interpretation of differential equations via slope fields
Relationship between slope fields and solution curves for differential equations

Major Assignments and Assessments
Problem Sets
Quiz – Differential Equations Applications
Oral Review: Examine how the graphing calculator can be utilized to help students solve differential equations and make connections to slope fields. Students are required to verbally express the concepts related to the various differential equation applications and slope fields.
Adobe Live Lesson session: Discussion of AP style questions on domain restrictions for solutions to Differential Equations and analysis of Slope Fields. Students are required to explain their mathematics both verbally using the audio feature and in written form on the whiteboard and chat area during this session.

Semester Exam

---Semester 2---

Unit 7: Applications of Integration Suggested Pace: 3 weeks
Topics
Application of integrals – area and volume
Content
Area of a region between two curves
Volume using Disk Method
Volumes of Cross Sections
Volumes using Shell Method
Arc Length
Application of integration involving particle motion and distance traveled
Work Applications

**Major Assignments and Assessments**

**Problem Sets**
Oral Review – Discuss setup on a graphing calculator to find volumes for functions that cannot be integrated by hand. Students are required to be able to explain how the calculator is used to assist with the integration portion of solving a volume problem and its applications.

Adobe Live Lesson session: AP Style questions on area and volume that require a calculator to find the limits of integration. Students have opportunity to demonstrate their solutions to other members of the class as well as the teacher using the whiteboard, application sharing of MathType and Graphmatica solutions and the audio feature during this session.

Test – Applications of Integration

**Unit 8: Integration Techniques Suggested Pace: 3 weeks**

**Topics**
Techniques of Integration:
Basic rules of integration
Integration by parts
Trigonometric Integrals
Integration by Trig Substitution
Integration using Partial Fractions
Indeterminate forms and L'Hopital’s Rule
Improper Integrals including divergence and convergence

**Major Assignments and Assessments**

**Problem Sets**
Oral Review – Given an integral students must be able to determine which integration technique is applicable.

Adobe Live Lesson session: Examination of various integration techniques and L'Hopital’s rule in evaluating limits. Students have opportunity to demonstrate their solutions to other members of the class as well as the teacher using the whiteboard, application sharing of MathType and Graphmatica solutions, and the audio feature during this session.

Test – Integration Techniques

**Unit 9, Part I: Sequences and Series Suggested Pace: 3 weeks**

**Topics**
Sequences
Convergence and divergence of sequences
Definition of series as sequence of partial sums
Convergence of series defined in terms of the limit of the sequence of partial sums of a series
Introduction to convergence and divergence of a series by using technology
Geometric series and applications
Nth term Test for divergence
Integral Test
Comparisons of series
Alternating series and alternating series remainder
Ratio and root tests

Major Assignments and Assessments
Problem Sets
Oral Review – Students must verbally demonstrate the ability to use their graphing calculator to show an intuitive understanding of convergence.
Adobe Live Lesson session: Examination of various convergence tests. Students have opportunity to demonstrate their solutions to other members of the class as well as the teacher using the whiteboard, application sharing of MathType and Graphmatica solutions, and the audio feature during this session.
Quiz: Mid-Chapter Review
Test: Convergence Tests

Unit 9, Part II: Taylor and Maclaurin Series: 3 weeks
Topics
Taylor polynomials and approximations
Power series and radius and interval of convergence
Taylor and Maclaurin series for given function
Maclaurin series for sinx, cosx, exponential function, and 1/1-x
Manipulation of series, including substitution, addition of series, multiplication of series by a constant/variable, differentiation and integration of series, and forming a new series from known series
Taylor’s Theorem with Lagrange Form of Remainder

Major Assignments and Assessments
Problem Sets
Oral Review – Students must verbally demonstrate the ability to use their graphing calculator to determine Taylor Polynomials and approximations along with error bound.
Adobe Live Lesson session: Examination of Taylor polynomials and Maclaurin/Taylor series. Students have opportunity to demonstrate their solutions to other members of the class as well as the teacher using the whiteboard, application sharing of MathType and Graphmatica solutions, and the audio feature during this session.
Quiz: Mid-chapter quiz
Test: Taylor polynomials and series, approximating using a series, power series and radius/interval of convergence
Unit 10, Parametric, Polar and Vectors: 2 weeks

Topics
Plane curves and parametric equations
Parametric equations and calculus
Parametric equations and vectors: motion along curve, position, velocity, acceleration, speed, distance traveled
Analysis of curves given in parametric and vector form
Polar coordinates and polar graphs
Analysis of curves given in polar form
Area of region bounded by polar curves

Major Assignments and Assessments
Problem Sets
Oral Review – Students must verbally demonstrate the ability to use their graphing calculator to apply parametrics, polars and vectors to application problems. Adobe Live Lesson session: Examination of parametric, polar, and vector applications. Emphasize finding area of polar regions. Students have opportunity to demonstrate their solutions to other members of the class as well as the teacher using the whiteboard, application sharing of MathType and Graphmatica solutions, and the audio feature during this session
Quiz: Parametric Equations
Test: Parametric, Polar equations, vectors.

Unit 11: Exam Review Suggested Pace: 4 weeks

Topics
All previously noted Topics
Content
Multiple Choice Practice Sets
Free Response Tutorials
Topic Explorations

Major Assignments and Assessments
Review Question Sets
Practice Tests
Adobe Live Lesson session: Online free response style question practice sessions. Discussion about format and grading of AP Exam approaches to problems using a numerical, analytical and graphical approach, preferred ways to communicate solutions in written form.
Oral Review: Calculator practice

Semester Exam
Other Instructional Materials
Math Type – Math symbol creation software
Graphmatica – Graphing software
Adobe Live Lesson session – Whiteboard, application sharing, voice, and video communication software
College Board approved calculator
2003 AP Calculus Released Exam Booklet
Previously released AP Calculus Free Response Questions
Study Island

Notes
This course is designed to be highly teacher facilitated. Instructors give specific and timely feedback for each of the 100 plus lessons. Students are required to complete one-on-one oral examinations with their teacher for each unit, discussions with other students where they practice communicating their mathematical concepts verbally, and have opportunity to schedule whiteboard sessions with the teacher. Teachers conduct synchronous Live Lesson sessions (whiteboard, application sharing, audio and video sharing) that require students to practice critical thinking and analysis with free response type questions and present their work verbally to the teacher and other students during those sessions.

Each assignment gives students practice in communicating their mathematics in written form using sentences as well as symbols. The oral reviews done in each unit and the synchronous sessions give students opportunities to express their understanding of mathematics verbally.

All lessons and assessments require students to respond to verbal, numerical and graphical prompts and require them to analyze and answer using written sentences and correct mathematical notation.

Most lessons include practice using the calculator as required for the AP exam. The students are informed in the first lesson of the type of calculator needed and the four operations required to be used during the AP Exam. Students are required throughout the course to give evidence of calculator proficiency. The required calculator operations and techniques for using the calculator appropriately are discussed in the oral reviews of each unit and in the synchronous sessions as well as in 10 scheduled one-on-one monthly phone conferences held between the teacher and each student. This course is accompanied by an online tutorial and review that uses released AP Exams. Students are given systematic and timed practice for all portions of the exam. Students receive specific feedback on progress and mastery levels on the practice exams.
AP Computer Science A

The AP Computer Science A course is an introductory computer course. A large part of the course involves developing the skills to write programs or parts of programs that correctly solve specific problems. The course also emphasizes the design issues that make programs understandable, adaptable, and when appropriate, reusable. At the same time, the development of useful computer programs and classes is used as a context for introducing other important concepts in computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications. In addition, an understanding of the basic hardware and software components of computer systems and the responsible use of these systems are integral parts of the course.

The goals of the AP Computer Science course are comparable to those in the introductory sequence of courses for computer science majors offered in college and university computer science departments. Students completing the AP Computer Science course will be able to:

  o design and implement computer-based solutions to problems in a variety of application areas.
  o use and implement commonly-used algorithms and data structures.
  o develop and select appropriate algorithms and data structures to solve problems.
  o code fluently in an object-oriented paradigm using the programming language Java. Students will be familiar with and be able to use standard Java library classes from the AP Java subset.
  o read and understand a large program consisting of several classes and interacting objects. Students will be able to read and understand a description of the design and development process leading to a program such as the AP Computer Science Case Study (such as GridWorld).
  o identify the major hardware and software components of a computer system, their relationship to one another, and the roles of these components within the system.
  o recognize the ethical and social implications of computer use.
This course is designed to be highly teacher facilitated. Instructors give a great deal of specific and timely feedback. Students have opportunities for oral examinations, discussions, and whiteboards. Teachers conduct synchronous Elluminate sessions, which require critical thinking and analysis.

Student assessment occurs at a variety of levels throughout the lesson and course. Students are assessed via oral assessment and other synchronous sessions. Actual course assessment types include student assessed work, auto-graded, partially auto-graded, and totally instructor graded assignments.

Resources: Institute of Computer Technology: ICT’s Advanced Placement (AP) Computer Science Java Curriculum v 2.0 (http://www.ict.org/java.html)
GridWorld, AP Computer Science Case Study. (Available from College Board)

- Objectives which are addressed repeatedly throughout the course are identified with an asterisk when introduced.
- The specific element of a multipart objective is underlined when introduced.

---Semester 1---

<table>
<thead>
<tr>
<th>Week</th>
<th>Scope and Sequence</th>
<th>Concepts (Acorn Objectives)</th>
<th>Assignments</th>
<th>External Links</th>
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</table>
| 1    | Computer Systems, System Setup, and Program ICT: Lesson A1/A22 | **Computing in Context**  
  - Primary and Secondary Memory  
  - Processors  
  - Peripherals  
  - Language Translators/Compilers*  
  - Virtual Machines*  
  - Operating Systems | **Types of Hardware and Software**  
  - What is Java?  
  - Download and Install Java  
  - Download and Install BlueJ  
  - Demo Programs from BlueJ Tutorial | **Java Installation and Setup Instructions**  
  **BlueJ Installation and Setup Instructions**  
  **GridWorld Installation**  
  **How Stuff Works.com About.com** |
<p>| 2 | Introduction to Object-Oriented Programming | Object-Oriented Program Design |
|------------------------------------------|---------------------------------|
|   | ICT: Lesson A2 | Read and understand class specifications and relationships among classes.* |
|   |                   | Program Analysis |
|   |                   | Identify and correct errors.* |
|   |                   | Standard Data Structures |
|   |                   | Classes* |
|   |                   | Designing Programs |
|   |                   | Explore the DrawingTool class |
|   |                   | Face Drawing |
|   |                   | Car Drawing |
|   |                   | Java Style Conventions |
|   |                   | Quiz |
|   |                   | Review: Object-Oriented Programming Concepts |
| 3 | Objects and Classes | Object-Oriented Program Design |
|    | ICT: Lesson A2 | Read and understand a problem description, purpose, and goals.* |
|    |                   | Design and implement a class.* |
|    |                   | Program Implementation |
|    |                   | Class declarations.* |
|    |                   | Console output* |
|    |                   | Object-Oriented Thinking |
|    |                   | Good Programming Practice(Algorithms) |
|    |                   | Arithmetic Expressions (ints) |
|    |                   | Arithmetic Expressions (doubles) |
|    |                   | Arithmetic Expressions (mixed types) |
|    |                   | Review: How to Think Like a Computer Scientist |
| 4 | Data Types | Program Implementation |
|    |             | Primitive types vs. |
|    |             | Method Methodology |
|    |             | Area of Geometric |
|    |             | Review: Binary Number System |</p>
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<td><strong>Object-Oriented Program Design</strong></td>
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<tr>
<td>Choose appropriate data representation and algorithms.*</td>
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<td><strong>Program Implementation</strong></td>
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<td>Control – Sequential*</td>
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<td>Good Programming Practice (Debugging)</td>
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<td>Determining the Date of Easter</td>
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<td>Number Systems (Binary, Octal, Hexadecimal)</td>
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<td>Exam</td>
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<td><strong>Variable declarations</strong></td>
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<td>Employ techniques such as using a debugger, adding extra output statements, or hand-tracing code.*</td>
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<td><strong>Pre- and post-conditions</strong></td>
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<td>Representations of numbers in different bases</td>
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<td>Limitations of finite representations*</td>
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<td><strong>Standard Data Structures</strong></td>
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<td>Simple data types (int, double, and boolean)*</td>
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<th>5 Calculations, User Input, Formatting Output</th>
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<tr>
<td><strong>Object-Oriented Program Design</strong></td>
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<td>Choose appropriate data representation and algorithms.*</td>
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<td>▪ Read and understand</td>
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<td>class specifications</td>
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<td>and relationships.*</td>
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<td><strong>Good Programming</strong></td>
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<td>Practice (Class</td>
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<td>Diagrams)</td>
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<td>▪ Calculate MPG v1</td>
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| ▪ Using the Java API        |
| ▪ Math Functions and        |
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| ▪ Pilot Visibility         |
| ▪ Student Project (Math    |
|    Class Applications)     |
| ▪ Grid World Case Study    |
| (Pt. 1)                    |
| ▪ Quiz                     |

- **Java API**
- **Java Math Methods**
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<th>Program Analysis</th>
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<td>▪ Encapsulation and information hiding.*</td>
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<td>▪ Primitive types vs. objects.*</td>
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<td>▪ Method declarations*</td>
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<td>▪ Parameter declarations*</td>
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<td>Good Programming Practice (Test Cases)</td>
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| 10     | Technology and Society | Responsible Use of Computer Systems  
- System Reliability  
- Privacy  
- Legal Issues & Intellectual Property  
- Social & Ethical Ramifications of Computer Use* | Computer History  
Computer Science Job Search  
Student Project (Impact of Technology)  
Grid World Case Study (Pt. 2) |
|       | ICT: Lesson 22       |           | Electronic Frontier Foundation |
| 11     | if-else Control Structures | Program Implementation  
- Control – Simple Conditionals*  
Standard Data Structures  
- Simple Data Types (int, double, and boolean)* | Evaluating if Statements (Control Structures)  
Decision Making  
Calculate Phone Charges  
Calculate IRS Taxes  
Grid World Case Study (Pt. 2)  
Quiz |
|       | ICT: Lesson A8       |           | Review: Relational Operators |
| 12     | while Loops | Program Implementation  
- Control – Iteration* | Evaluating Loops 1  
Triangle Measurements (Trig Functions)  
Tank Draining |
<p>|       | ICT: Lesson A12      |           | |</p>
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<tr>
<th>Lesson</th>
<th>Topic</th>
<th>Algorithm</th>
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<tr>
<td>13</td>
<td>for loops and do-while loops</td>
<td><strong>Tank Draining</strong>&lt;br&gt;<strong>Grid World Case Study (Pt. 2)</strong>&lt;br&gt;<strong>Exam</strong></td>
<td><strong>Evaluating Loops 2</strong>&lt;br&gt;<strong>ASCII Pascal’s Triangle</strong>&lt;br&gt;<strong>Multiplication Tables</strong>&lt;br&gt;<strong>Perpetual Calendar</strong>&lt;br&gt;<strong>Grid World Case Study (Pt. 2)</strong></td>
<td>For Loops&lt;br&gt;Frequently Asked Questions about Calendars&lt;br<em>A Gregorian Calendar Algorithm</em>&lt;br&gt;Note: The switch statement is not tested on the AP Exam, but is covered here for thoroughness.</td>
</tr>
<tr>
<td>14</td>
<td>switch Control Structure</td>
<td><strong>An Alternative Control Structures</strong>&lt;br&gt;<strong>Determining Grade Eligibility</strong>&lt;br&gt;<strong>Hangman Algorithm Design</strong>&lt;br&gt;<strong>Hangman Game (Part 1)</strong>&lt;br&gt;<strong>Grid World Case Study (Pt. 2)</strong>&lt;br&gt;<strong>Quiz</strong></td>
<td><strong>Simulating Randomness</strong></td>
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<td>15</td>
<td>Random Events</td>
<td><strong>Program Implementation</strong>&lt;br&gt;<strong>Control – Nested</strong></td>
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</table>

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| ICT: Lesson A6 | Conditionals* | Rolling Dice and Percentages  
| | | Guess Number Game (from *AP Central Nifty Ideas*)  
| | | Case Study Review  
| | | Student Project (Groan Dice Game)  
| | | Exam  
| 16 | String Class  
| ICT: Lesson 10 | Object-Oriented Program Design  
| | | Identify reusable components from existing code using classes and class libraries.  
| | The String Class  
| | Finding Palindromes  
| | Simulate Text Messaging Code  
| | Pig Latin Translator  
| | Grid World Case Study (Pt. 3)  
| | Java API: The String Class  
| | World’s Longest Palindrome  
| 17 | Simple Text File I/O  
| ICT: Lesson A13 | Note: Text file handling is not specifically covered on the AP Exam, but is included here for thoroughness.  
| | File Handling Basics  
| | Average Numbers from a Text File  
| | Process Speeding Data from a Text File  
| | Hangman Algorithm Design  
| | Hangman Game (Part 2)  
<p>| | Grid World Case Study |</p>
<table>
<thead>
<tr>
<th>Week</th>
<th>Scope and Sequence</th>
<th>Concepts</th>
<th>Assignments</th>
<th>Acorn Objectives</th>
</tr>
</thead>
</table>
| 18   | Semester Exam      | Note: Coding applets is not covered on the AP Exam, but it is included here for thoroughness. | • How Java works with the Web  
• Designing Applets  
• Upgrading Console I/O to Applets  
• Review for Semester Exam  
• Semester Exam | |

---Semester 2---

<table>
<thead>
<tr>
<th>Week</th>
<th>Scope and Sequence</th>
<th>Concepts</th>
<th>Assignments</th>
<th>Acorn Objectives</th>
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</thead>
</table>
| 19   | Exceptions  
ICT: Lesson A13 | Program Analysis  
• Understanding runtime exceptions.* | • User Interface Design  
• Error Traps  
• User Friendly Bank Account  
• Grid World Case Study (Pt. 3) | • Exceptions in Java  
• What is an Exception?  
• Advantages of Exceptions |
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<tr>
<th></th>
<th>Boolean Expressions</th>
<th>Program Implementation</th>
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<th>Program Analysis</th>
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<tr>
<td>20</td>
<td>ICT: Lesson A14</td>
<td>▪ Control – Compound Conditionals*</td>
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<td>▪ Perform integration testing.*</td>
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<td>▪ Boolean Algebra</td>
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<td>▪ Extend existing code using inheritance.*</td>
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<td>▪ Boolean Algebra</td>
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<td>▪ Principles of Inheritance 2</td>
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<td>▪ Rolling Three Unique Numbers</td>
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<td>▪ Biological Taxonomy</td>
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<td>▪ Highest/Lowest Product 3 Digit Numbers</td>
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<td>▪ Inheritance (Athlete-Jogger-Runner-Marathoner)</td>
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<td>▪ Grid World Case Study (Pt. 3)</td>
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<td>▪ Inheritance (Bank Account-Checking-</td>
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<td>▪ Quiz</td>
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| 21 | Inheritance (Part 1) | Object-Oriented Program Design |   |   |
| ICT: Lesson A11 | ▪ Apply data abstraction and encapsulation.* | ▪ Principles of Inheritance 1 |
|   | ▪ Understand and implement a given class hierarchy.* | ▪ Family Trees |
|   | ▪ Extend a given class using inheritance.* | ▪ Inheritance (Person-Teacher-Student) |
|   |   | ▪ Inheritance (Vehicle-Car-Truck) |
|   |   | ▪ Grid World Case Study (Pt. 3) |
|   |   |   | ▪ Review: Inheritance |

<p>| 22 | Inheritance (Part 2) |   | Program Analysis |
| ICT: Lesson A20 |   | ▪ Principles of Inheritance 2 |
|   |   | ▪ Biological Taxonomy |
|   |   | ▪ Inheritance (Athlete-Jogger-Runner-Marathoner) |
|   |   | ▪ Inheritance (Bank Account-Checking- |</p>
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<tr>
<th>Lesson</th>
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<th>Programs Implementation</th>
<th>Additional Notes</th>
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<tr>
<td>23</td>
<td>Graphics ICT: Lesson A6</td>
<td>- Note: Graphics is not covered on the AP Exam, but is included here for thoroughness.</td>
<td>- Computer Graphics and Animation</td>
<td>- Working with Graphics - Animated 2D Graphics</td>
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<tr>
<td>24</td>
<td>Recursion ICT: Lesson A9</td>
<td><strong>Program Implementation</strong> - Recursion*</td>
<td>- Martin and the Dragon - Evaluation of Recursive Math Functions - Recursive Summation - Dr. Seuss &amp; Recursion - Recursive Factorial - Recursive Fibonacci - Grid World Case Study (Pt. 3)</td>
<td>- Tower of Hanoi</td>
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<td>Interfaces and Abstract Classes ICT: Lesson A20</td>
<td><strong>Program Implementation</strong> - Interface declarations*</td>
<td>- Interfaces and Abstract Classes - Real World Examples - Student Interface Class - Abstract Figures (Circles and Squares) - Review Case Study</td>
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<td>Single Dimension Arrays</td>
<td>Standard Data Structures</td>
<td>Exam</td>
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<td>One-dimensional Arrays*</td>
<td>Single Dimension Arrays</td>
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<td>Standard Algorithms</td>
<td>Array Traversals*</td>
<td>One Dimensional Arrays</td>
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<td>Array Insertions*</td>
<td>Arrays</td>
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<td>Array Deletions*</td>
<td>Java Arrays</td>
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<tr>
<td>ICT: Lesson A15</td>
<td>ArrayList Traversals*</td>
<td>ArrayLists</td>
<td>Java Array Lists</td>
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<td>ArrayList Insertions*</td>
<td>Area of an Irregular Polygon</td>
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<td>ArrayList Deletions*</td>
<td>Permutations</td>
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<td>Informal comparisons of running times.</td>
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<td>Exact calculation of statement execution counts.</td>
<td>Compare Bubble, Selection, &amp; Insertion Sorts</td>
<td>Data Structure Visualizations</td>
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<td>Sorting Numeric and Alphanumeric Data</td>
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<td>Merge Sorting Algorithms</td>
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<td>Selection Sort*</td>
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<td>Array of Objects</td>
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<td>The Essence of OOP Using Java</td>
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<td>Updating Grocery Store Inventory</td>
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ADVANCED PLACEMENT®
ENGLISH LANGUAGE
AND
COMPOSITION
An AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. The college composition course for which the AP English Language and Composition course substitutes is one of the most varied in the curriculum.

This course is designed to be highly teacher facilitated. Instructors give a great deal of specific and timely feedback. Students have opportunities for oral examinations, discussions, and whiteboards. Teachers conduct synchronous Elluminate sessions, which require critical thinking and analysis.

Student assessment occurs at a variety of levels throughout the lesson and course. Students are assessed via oral assessment and other synchronous sessions. Actual course assessment types include student assessed work, auto-graded, partially auto-graded, and totally instructor graded assignments.

**Semester One**

**Objectives:**

- To create and sustain arguments based on readings, research, and/or personal experience
- To improve writing skills
- To effectively incorporate a balance of generalization and specific illustrative detail in their writing
- To demonstrate understanding and mastery of standard written English as well as stylistic maturity in their own writings
- To learn and apply various rhetorical devices used by writers
- To produce expository, analytical, and argumentative compositions that introduce a complex central idea and develop it with appropriate evidence drawn from primary and/or secondary sources, cogent explanations and clear transitions
- To apply effective strategies and techniques in their own writing
- To analyze images as text
- To further develop vocabulary and word study skills
- To use a wide range of vocabulary appropriately and effectively
- To analyze and interpret samples of good writing, identifying and explaining an author’s use of rhetorical strategies and techniques
- To write for a variety of purposes
- To revise a work to make it suitable for a different audience
AP English Language
and Composition Syllabus

• To recognize and analyze the use of imagery and detail in a wide range of writers and their works

Module One: The Early Edition

Topics Addressed: components of the course and the AP exam, planning and committing time and effort to successfully complete the course, utilizing the grading policy while completing assessments, MLA Citation and Documentation, results of not properly using citation and documentation, understanding text to facilitate analysis of writing conventions, Rhetorical Devices, Analysis of Characterization

Readings: F Scott Fitzgerald’s The Great Gatsby

Essay: Gatsby and the American Dream, the individual’s concept of success

Community Activity: Visit and interview at a local newspaper office

Exam: Oral Assessment

Estimated Completion Time: 3 weeks

Other Resources:

Finding Your Focus: The Writing Process
http://owl.english.purdue.edu/workshops/pp/index.html#basic

The Essay and Its Parts
http://virtual.yosemite.cc.ca.us/lumanr2/English_25/unit_A.htm

Handling Quotations in Text
http://www.ccsn.nevada.edu/library/mlaquote.htm

Learning Resource (answering a writing prompt)
http://www.jcu.edu.au/studying/services/studyskills/essay/index.html#question

Blue Book of Grammar and Punctuation
http://www.grammarbook.com/punctuation/capital.asp

Reading from Scratch
http://www.dyslexia.org/spelling_rules.shtml

Avoiding Sentence Fragments
http://owl.english.purdue.edu/handouts/grammar/g_frag.html

Grammar Outlaw
http://ace.acadiau.ca/english/grammar/runon.htm

Subject/Verb Agreement
Module Two: The Colonial Revolutionary Edition

Topics Addressed: basic concerns of the early Americans, founding ideas for our democracy, narratives and speeches of several great writers, roles of the writers during this period of time, Analysis of tone, rhetorical questioning, repetition, allusion, diction, logical fallacies, figurative language, persuasive essay, parallel structure, concrete details, aphorisms, synthesis of images and text

Readings:
- John Smith’s Letter to Queen Anne Regarding Pocahontas"
- Patrick Henry’s Liberty or Death"
- Jonathan Edwards’ Sinners in the Hands of an Angry God"
- Thomas Jefferson’s Declaration of Independence"
- Benjamin Franklin excerpts from Autobiography” and Po or Richard’s Almanack”
- Frederick Douglas excerpt from Narrative of the Life of Frederick Douglass”
- Essay: Persuasive Essay, defend and support OR challenge and refute the topic of stem cell research
- Persuasive Speech (Defense/ Challenge of Henry)
- Style Analysis of Henry’s speech
Projects:
- Creating a personal Declaration of Independence,
- Viewing and responding to the documentary Hotel Rwanda in writing,
- Analysis of local artifact in community

Exams: Logical Fallacies, Tone Words

Estimated Completion Time: 4 weeks

Other Resources:
Brief Timeline of American Literature and Events, 1620-1920
http://www.wsu.edu/%7Ecampbelld/amlit/timefram.html

Brief Biography of John Smith
http://www.apva.org/history/jsmith.html

John Smith’s Letter to Queen Anne regarding Pocahontas
http://members.aol.com/mayflo1620/pocahontas.html

Biography of Patrick Henry
http://www.redhill.org/biography.html

Give me Liberty or Give me Death! (recording)
http://www.history.org/Almanack/people/bios/biohen.cfm#speech

Biography of Jonathan Edwards
http://mondrian.princeton.edu/CampusWWW/Companion/edwards_jonathan.html

“Sinners in the Hands of an Angry God” (Edwards)

National Institute of Health

Stem Cell Research
http://www.religioustolerance.org/res_stem.htm

Brief Biography of Thomas Jefferson
http://www.monticello.org/jefferson/biography.html

Declaration of Independence

Autobiography and Poor Richard’s Almanack— excerpts (Franklin)

PBS Virtual Museum of Slavery
http://www.pbs.org/wnet/slavery/teachers/virtual_ex4p1a.html

Module Three: The Romantic Edition
AP English Language and Composition Syllabus

Topics Addressed: the flowering of literature during the period of American romanticism, the philosophy of Transcendentalism and its importance in the literature of this period, getting acquainted with a wide range of writers and their works including short stories and poetry, Clichés and sexist language, style analysis, AP multiple choice strategies, diction, denotation and connotation.

Readings:
- Emerson “Concord Hymn” and excerpt from “Self-Reliance”
- Dickens Chapter One from “Great Expectations”
- Thoreau excerpts from “Walden”
- Poe “Masque of the Red Death,” “The Raven,” “Annabel Lee”
- Melville “Baryley the Scrivener” Option A
- Hawthorne D. R. Heideger’s Experiment” Option B
- Joseph Rotblat’s Nobel Prize Acceptance Speech
- Thoreau excerpts from “Civil Disobedience”

Essays:
- Synthesis Essay on Materialism with three sources
- Style Analysis
- Response to Television Documentary

Projects: Interview with a family member on the topic of Thoreau’s belief in the power of simplicity

Exams:
- Diction Quiz
- AP Multiple Choice Practice
- Fluency Assessment on “Civil Disobedience”

Estimated Completion Time: 4 weeks

Brief Timeline of American Literature and Events, 1620-1920
http://www.wsu.edu/%7Ecampbelld/amlit/timefram.html

Brief Biography of Ralph Waldo Emerson
http://www.rwe.org/pages/biography.htm

“Concord Hymn” and “Self-Reliance” excerpts (Emerson)

“Transcendentalism”
http://www.transcendentalists.com/what.htm

Great Expectations, Chapter 1 (Dickens)

Brief Biography of Charles Dickens
AP English Language and Composition Syllabus

http://www.victorianweb.org/authors/dickens/dickensbio1.html

Frequently Asked Questions about Thoreau

Images of Thoreau
http://eserver.org/thoreau/images.html

Thoreau’s Cabin Site
http://thoreau.eserver.org/siteof.html

Thoreau’s Cabin Site 1998
http://thoreau.eserver.org/site2.html

The Thoreau Society
http://www.thoreausociety.org/

Walden— excerpts (Thoreau)

Academic Essay Checklist

University Writing Center
http://www.uwc.ucf.edu/Writing%20Resources/Handouts/proof_techniques.htm

UNC Paragraph Development
http://www.unc.edu/depts/wcweb/handouts/paragraphs.html

Grinnell College Writing Lab
http://wm2.grinnell.edu/academic/writinglab/forum/

Online Guide to Writing and Research

Editing and Revising
http://virtual.yosemite.cc.ca.us/lumanr2/English_25/unit_D.htm

Using Quotations
http://leo.stcloudstate.edu/research/usingquotes.html

Parallelism
http://web.cn.edu/kwheeler/gram_parallelism.html

Drew University Online Resource Page for Writers
http://www.users.drew.edu/sjamieso/synthesis.html#writing

Organizing Your Argument
http://owl.english.purdue.edu/workshops/pp/index.html#basic

Increasing Readability in Papers
http://theliterarylink.com/style.html

Point of View in Writing and the Active/Passive Voice
AP English Language and Composition Syllabus

http://www.siskiyous.edu/writinglab/powerpoints.htm

Avoid Dead Verbs
http://www.myschoolonline.com/page/0,1871,3882-118496-3-15532,00.html

Ten Golden Rules of Writing
http://www.chipspage.com/gldnrul.html

Elimination of Comma Splices
http://www.siskiyous.edu/writinglab/powerpoints.htm

Pronoun and Antecedent Agreement
http://aliscot.com/bigdog/agreement_pa.htm

Tameri Guide for Writers
http://www.tameri.com/edit/adjadv.html

Major Rules for Comma Usage
http://wwwnew.towson.edu/ows/moduleCOMMA.htm

Punctuation Made Simple
http://wwwnew.towson.edu/ows/moduleCOMMA.htm

Sentence Clarity and Combining
http://owl.english.purdue.edu/workshops/pp/index.html#basic

Independent and Dependent Clauses: Coordination and Subordination Tip Sheet
http://www.butte.edu/services/student/cas/tipsheetsys/01-50/030.html

“Another Pleasant Valley Sunday”
http://www.guntheranderson.com/v/data/pleasant.htm

Melville and Hawthorne

Joseph Rotblat’s Nobel Prize Acceptance Speech

AP Multiple Choice Questions
http://apcentral.collegeboard.com/repository/mc_english_lang_0102_4576.pdf

Module Four: The Civil War

Topics Addressed: causes and effects of the Civil War, fiction and nonfiction works that explore the significance of the time period, multicultural literature of the time, humor, colloquialisms, analysis of imagery and detail, inductive and deductive logic, analysis of theme

Readings:
- Shaara’s The Killer Angels
- Dunbar ‘We Wear the Mask,” ‘The Haunted Oak’
AP English Language
and Composition Syllabus

- Dickinson “I Never Saw a Moor,” “A Word is Dead,” “Because I Could Not Stop for Death”
- Lincoln “Gettysburg Address”
- Twain “The Celebrated Jumping Frog of Calaveras County”
- Negro Spirituals “Swing Low, Sweet Chariot,” “Go Down, Moses”
- Whitman “When Lilacs Last in the Dooryard Bloom’d”
- Excerpts from George W. Bush and Tony Blair speeches following September 11 attacks

Essays:
- Inductive/Deductive essay on “The Divine Spark” from *Killer Angels*
- Comparison/contrast of speeches

Projects: Photograph and Evaluation of a Local African-American artifact

Exams:
- Imagery and detail
- Multiple Choice practice
- *Killer Angels* Test
- Semester Exam comprised of AP Multiple Choice passages and essay prompt

Estimated Completion Time: 5 weeks

Brief Timeline of American Literature and Events, 1620-1920
http://www.wsu.edu/~campbelld/amlit/timefram.html

*The Killer Angels* (Shaara) edition varies

Paul Laurence Dunbar
http://www.plethoreum.org/dunbar/

Emily Dickinson
http://www.poets.org/poet.php/prmPID/155

Selected Poetry of Dickinson
http://members.aol.com/GivenRandy/r_emily7.htm

The Divine Spark

Abraham Lincoln
http://sc94.ameslab.gov/TOUR/alincoln.html

The Gettysburg Address

“Remember the Titans” Movie Clip
Excerpt from President George Bush’s September 20th speech to Congress

Excerpt from Prime Minister Tony Blair’s speech to the Labour Party on Oct. 2, 2001

The Celebrated Jumping Frog of Calaveras County

“Swing Low, Sweet Chariot” (anonymous)

“Go Down Moses” (anonymous)

“When Lilacs Last in the Dooryard Bloom’d” (Whitman)

Semester Two Objectives:

- To analyze and interpret samples of good writing, identifying and explaining an author’s use of rhetorical strategies and techniques
- To apply effective strategies and techniques in their own writing
- To demonstrate understanding and mastery of standard written English as well as stylistic maturity in their own writings
- To create and sustain arguments based on readings, research, and/or personal experience
- To improve writing skills
- To effectively incorporate a balance of generalization and specific illustrative detail in their writing
- To write for a variety of purposes
- To further develop vocabulary and word-study skills
- To use a wide range of vocabulary appropriately and effectively
- To effectively incorporate a balance of generalization and specific illustrative detail in their writing
- To demonstrate understanding and mastery of standard written English as well as stylistic maturity in their own writings
- To produce expository, analytical, and argumentative compositions that introduce a complex central idea and develop it with appropriate evidence drawn from primary and/or secondary sources, cogent explanations and clear transitions
- To analyze graphics and visual images as a form of text
- To evaluate and incorporate reference documents into researched papers
- To move effectively through the stages of the writing process, with careful attention to inquiry and research, drafting, revising, editing, and review

Module Five: The Realism/Naturalism Edition
Topics Addressed: influences of the political, social, and economic changes after the Civil War, works of fiction and nonfiction of the time period, works of female writers during the period, Realism, Naturalism, euphemism, regionalism, irony and comic irony, point of view analysis

Readings:
- Stephen Crane  "The Open Boat"
- Bret Harte  "The Outcasts of Poker Flat"
- Kate Chopin  "The Story of an Hour"
- Freeman  "The Revolt of Mother"
- Garland  "Under the Lion's Paw"
- Jack London  "To Build a Fire"
- Ambrose Bierce  "An Occurrence at Owl Creek Bridge"
- Sojourner Truth  "Ain't I a Woman?"
- Letters from the Coca-Cola company and Grove Press

Essays:
- Timed Writing - Editorial on Chief Joseph and the Nez Perce Journey, Point of View Analysis and Perspective Analysis
- Analysis of Rhetorical Strategies Used in Persuasive Essays

Projects: Women’s Roles in Society Interview with Family member

Exams:
- AP Multiple Choice Practice
- AP Timed Writing Exam Practice
- Fluency Assessment on ‘Ain’t I a Woman?’

Estimated Completion Time: 3 weeks

Brief Timeline of American Literature and Events, 1620-1920
http://www.wsu.edu/%7Ecampbelld/aenglishlit/timefram.html

Stephen Crane and the Commodore
http://volusia.com/crane/

“The Open Boat” by Stephen Crane
http://www.geocities.com/stephen_crane_us/openboat.html

Bret Harte
http://www.zpub.com/sf/history/harte.html

“The Outcasts of Poker Flat” (Harte)
http://www.bartleby.com/310/4/2.html

Chief Joseph Speaks: Selected Statements and Speeches by the Nez Perce Chief
AP English Language and Composition Syllabus

Nez Perce Archive Photography
http://www.nezperce.com/npphoto1.html

Scared Journey of the Nez Perce

Native American Nations
http://www.nativeculturelinks.com/nations.html

Reservation Road
http://www.artist.pair.com/road/index.htm

“The Story of an Hour” (Chopin)
http://www.wsu.edu:8080/%7Ewldciv/world_civ_reader/world_civ_reader_2/chopin.html

“The Revolt of ‘Mother’” (Wilkins-Freeman)
http://www.is.wayne.edu/mnissani/Fall2003/revolt%20of%20mother.HTM

The Hamlin Garland Society
http://www.uncwil.edu/garland/

“Under the Lion’s Paw” (Garland)

Jack London, Biography
http://london.sonoma.edu/jackbio.html

Naturalism in American Literature
http://www.wsu.edu/~campbellld/amlit/natural.htm

“To Build a Fire” (London)
http://london.sonoma.edu/Writings/LostFace/fire.html

“An Occurrence at Owl Creek Bridge” (Bierce)
http://www.pagebypagebooks.com/Ambrose_Bierce/An_Occurrence_At_Owl_Creek_Bridge/

Narrative of the Life of Frederick Douglass, An American Slave (Douglass)

Coca-Cola and Grove Press: Exchange of Letters
www.collegeboard.com

Module Six: The Modern Edition
Topics Addressed: literature and how it reflects economic and social changes during the period of world wars, major authors of this period and their writings, the Harlem Renaissance and its literary contributions to our society, basic concepts of the Rogerian argument, essay writing using the rhetorical triangle, novel analysis, symbolism, simile, interpretation, analysis of organization of narrative structure

Readings:
AP English Language and Composition Syllabus

- Zora Neale Hurston  *Their Eyes Were Watching God*
- Langston Hughes  *The Negro Speaks of Rivers,*  *Theme for English B*
- Countee Cullen  *From the Dark Tower,*  *Incident*
- Claude McKay  *America,*  *The Tropics in New York*
- Engel  essay  *Jazz*
- John Steinbeck  essay  *Remember the Thirties,* excerpt from *The Grapes of Wrath*
- George Orwell  essay  *Politics and the English Language*
- Robert Frost  *Birches,*  *Mending Wall*
- T.S. Eliot  *The Hollow Men,*  *Macavity*
- Zora Neale Hurston  *How It Feels to Be Colored Me*

Essays:
- Synthesis Essay: Defend, challenge, or qualify (using three sources) the topic of the prosperity of the Roaring Twenties and the appeal of jazz
- Persuasive Essay: Defend, Challenge, or Qualify a quote from Orwell’s essay
- Argument Essay from AP Test Review

Exams:
- AP exam practice
- Oral Assessment

Estimated Completion Time: 5 weeks

Brief Timeline of American Literature and Events, 1620-1920
http://www.wsu.edu/~campbelld/amlit/timefram.html

*Their Eyes Were Watching God* (Hurston) edition varies

Zora Neal Hurston
http://www.galegroup.com/free_resources/bhm/bio/hurston_z.htm

Poets.Org  Harlem Renaissance--Hughes, Cullen, McKay
http://poets.org/viewmedia.php/prmMID/15722

Steinbeck  *I Remember the Thirties*
http://web.archive.org/web/20040224132310/http://ocean.st.usm.edu/%7Ewsimkins/30s.html

Thurber  “The Secret Life of Walter Mitty”

The Twenties-American Cultural History
http://kclibrary.nhmccd.edu/decade20.html

Frost  “Birches,”  “Mending Wall”
http://www.poets.org/viewmedia.php/prmMID/15729

Eliot  “The Hollow Men,”  “Macavity”
AP English Language and Composition Syllabus

Guy Fawkes and Bonfire Night (Sonja Hyde Moyer)

Hurston “How it Feels to be Colored Me”

Module Seven: The Contemporary Edition

Topics Addressed: Kurt Vonnegut and science fiction writing, modern writers and how they address issues of equality, identity, and other issues of mankind; nonfiction writing, Play analysis, analysis of mood, allusion, sentence structure, antithesis, syntax, parallelism, synthesis essay, pathos, logos, satire, visual literacy, the Rhetorical Triangle, improving test taking skills through practice on a timed test

Readings:
- Hansberry  *A Raisin in the Sun*
- Kennedy’s Inaugural Address
- King’s Letter from Birmingham Jail”
- Herblock’s Political Cartoons
- Excerpt from Maxine Hong Kingston’s *The Woman Warrior*

Essays:
- Timed Synthesis Essay
- Synthesis Essay from College Board “Television’s Impact on Presidential Elections”
- Research Essay on current conflict and MLK

Projects:
Timeline Project with partner
Visual Literacy Project on Vietnam War

Exams:
- Test on *A Raisin in the Sun*
- AP Prompt for Synthesis Essay
- Analysis of Political Cartoons

Estimated Completion Time: 4 weeks

Hansberry  *A Raisin in the Sun* edition varies

John F. Kennedy Library Virtual Tour
http://www.jfklibrary.org/jfk_biology.html

“Inaugural Address Analysis Shows Bush’s Ranking Against Predecessors”
http://www.yourdictionary.com/about/news038.html

Kennedy’s Inaugural Address (video/audio/text)
Timeline of Events in Martin Luther King, Jr.’s Life
http://www.lib.lsu.edu/hum/mlk/srs216.html

King “Letter from Birmingham Jail”
http://almaz.com/nobel/peace/MLK-jail.html

Ethos, Pathos, and Logos
http://www.rpi.edu/dept/llc/webclass/web/project1/group4/index.html#ethos

Herblock’s Political Cartoons
http://www.loc.gov/rr/print/swann/herblock/

Module Eight: The Student Edition
Topics Addressed: thematic approach to a virtual newspaper, analyzing a novel from several perspectives, real work connections based on a novel's theme, persuasive writing through the book review,

Reading: (Select One)
- Yezierska Bread Givers
- Ellison Invisible Man
- McCourt Angela’s Ashes
- Kingston The Woman Warrior
- Hawthorne The Scarlet Letter
- O’Brien The Things They Carried
- Chopin The Awakening
- Jan Krakauer Into Thin Air

Essays:
- Book Review
- Analysis of Author’s Style

Projects: Artistic Expression of Novel’s Theme (Original artwork, music, among other options)

Exams: Semester Exam comprised of AP Multiple Choice passages and synthesis essay prompt

Estimated Completion Time: 4 weeks

**This course is accompanied by an online tutorial and review that uses released AP Exams. Students are given systematic and timed practice for all portions of the exam. Students receive specific feedback on progress and mastery levels as they complete the practice exams.
ADVANCED PLACEMENT®
ENGLISH LITERATURE
AND
COMPOSITION
AP English Literature and Composition

For a year, students participate in the AP Dinner Party in the AP Literature and Composition course. Menu items include reading, analyzing, writing, rewriting, and discussing creations by the master chefs, renowned authors. Through close reading of the text of these authors, students will discover the various ways writers use language to provide meaning and pleasure for their readers. The AP Literature and Composition course requires intensive concentration on composition skills (both yours and the author's) in areas of structure, style, and theme. You'll also analyze authors' narrative techniques, like use of figurative language, imagery, symbolism, and tone. The AP Literature and Composition dinner party equips students with recipes for success in college, in a career and the AP exam.

This course is designed to be highly teacher-facilitated. Instructors give a great deal of specific and timely feedback. Students have opportunities for oral examinations, discussions, and whiteboards. Teachers conduct synchronous Elluminate sessions, which require critical thinking and analysis. Student assessment occurs at a variety of levels throughout the lesson and course. Students are assessed via oral assessment and other synchronous sessions. Actual course assessment types include student-assessed work, auto-graded, partially auto-graded, and instructor-graded assignments.


Semester One

Objectives:

- Develop a wide-ranging vocabulary used with denotative accuracy and connotative resourcefulness.
- Use a variety of sentence structures, including appropriate use of subordinate and coordinate constructions.
- Develop a logical organization, enhanced by specific techniques of coherence such as repetition, transitions, and emphasis.
- Create a balance of generalization with specific illustrative detail.
- Write with an effective use of rhetoric, including controlling tone, maintaining a consistent voice, and achieving emphasis through parallelism and antithesis.
- Write informally about what you think in the process of writing about your reading.
- Create a research document, which includes analysis of literary elements and negotiation of differing critical perspectives.
- Write effectively under the time constraints on essay exams in college courses in many disciplines, including English.
- Analyze authors' narrative techniques, like use of figurative language, imagery, symbolism, and tone.
- Evaluate and develop composition skills in areas of structure, style, and
theme. Study representative literary works from various genres and periods.

- Understand a work’s complexity, to absorb its richness of meaning, and to analyze how that meaning is embodied in literary form.
- Reflect on the social and historical values a literary work reflects and embodies.
- Experience, interpret, and evaluate a work of literature with consideration to its social and cultural values writing response and reaction papers.
- Write for a variety of purposes.
- Analyze and interpret aspects of language and structure.
- Make and explain judgments analyzing and interpreting the material involves students in learning how to make careful observations of textual detail, establish connections among their observations, and draw from those connections a series of inferences leading to an interpretive conclusion about a piece of writing’s meaning and value.
- Have an awareness of literary tradition and the complex ways in which imaginative literature builds upon the ideas, works, and authors of earlier times.
- Analyze a work of literature in regards to its artistry and explore its underlying social and cultural values through analysis, interpretation, and argument.
- Write and read with increasing complexity and sophistication.
- Analyze short prose passages and poems and through practicing with “open” analytical questions.
- Analyze a passage or poem in which students are required to discuss how particular literary elements or features contribute to meaning.
- Select a literary work and discuss its relevant features in relation to questions provided.

Introduction to Course:
Topics Addressed:
Theme and motif of course, getting organized in the online environment, purpose of AP Literature and Composition course, grading policy, plagiarism, personal essay, structure of the AP College Board Exam, note taking on major works in the course, style sheet, key literary terms.

Exams:
Quiz on literary terms
Essay:
Write a college essay
Estimated Completion Time: 2 weeks

Module 1:
Topics Addressed:
allusion, paraphrasing, quoting, romanticism, timed essay, research essay
Readings:
- *Frankenstein* by Mary Shelley
- Excerpts from *Faust* by J.W. Von Goethe (translated by Anna Swanwick)
- "The Rime of the Ancient Mariner" by Samuel Taylor Coleridge
- "Siren Song" by Margaret Atwood
- "The Myth of Prometheus"
- "The Boarded Window" by Ambrose Bierce
- "Interpreter of Maladies" by Jhumpa Lahiri

Essays:
- Bibliotherapy essay on *Frankenstein*
- Timed essay on prose: Locate and analyze allusions in a major work, and then explain how they develop the work.
- Banked essay questions, students will receive one of the following:
  - misconceptions of self and the world, and how they develop meaning in a work of literature
  - how a reader sees the immoral or evil character and how that reaction impacts the author’s purpose in a novel
  - how do scenes containing violence affect the meaning of the overall work of literature
  - select an alienated character and analyze what that character reveals about society
  - identify a question raised by a major work of literature and explain how the question impacts the reader’s understanding of the work

Exams:
Quizzes on all works of literature, banked essay topics as noted above, multiple-choice practice exam.

**Estimated Completion Time:** 4 weeks

Module 2

**Topics Addressed:**
- meter, imagery, allegory, symbolism, quoting, paraphrasing, parenthetical citations, works cited, literary criticism, note taking for the research paper

**Readings:**
- A novel from the list of available choices presented in the module
- *Death of a Salesman* by Arthur Miller
- "Because I Could Not Stop for Death" by Emily Dickinson
- "A Noiseless Patient Spider" by Walt Whitman
- "Where Are You Going, Where Have You Been?" by Joyce Carol Oates

**Essays:**
- AP Practice Essay on poetry – symbolism and imagery
- Students will receive one of the following banked essay topics:
inanimate objects in a work of literature and how they develop an author’s purpose
- analyze an author’s use of setting in a novel; a character’s illusion and how it develops the theme of a literary work
- a character’s illusion and how it develops the meaning of a literary work
- the significance of parallel or recurring events in a work of literature

Projects:
Choose one: write and record a eulogy, create a visual representation of a piece of literature, or analyze song lyrics, serving as literary inspiration.

Exams:
Oral assessment, banked essay topics as noted above, quizzes on works of literature, multiple choice practice exam

Estimated Completion Time: 4 weeks

Module 3
Topics Addressed:
personal writing, thesis statement, developing parts of the essay, creating a rubric, scoring an essay, symbolism, allegory, characterization, diction, connotation, denotation, syntax, tone, mood, style, setting, theme, MLA documentation, free response, Venn diagram, traits of a hero, character, protagonist, antagonist

Readings:
- Heart of Darkness by Joseph Conrad
- "Ulysses" by Lord Alfred Tennyson
- "The Road Not Taken" by Robert Frost
- "Sailing to Byzantium" by William Butler Yeats
- "A Dream Deferred" by Langston Hughes
- "The Soldier" by Rupert Brooke
- "The Hollow Men" by T. S. Eliot
- "The Knight" from the "General Prologue" to The Canterbury Tales by Geoffrey Chaucer
- "A Good Man Is Hard to Find" by Flannery O’Connor
- "The Most Dangerous Game" by Richard Connell

Essays:
- Heart of Darkness – banked essay questions, students choose from the following topics:
  - a novel's ending and its contribution to the work overall
  - the functions of the first chapter of a novel
  - a character's response to colliding cultures and how that response affects the work overall
• how a character's struggle for power affects the overall meaning of a work
• how the physical journey in a novel contributes to its overall meaning
• Research paper on one of the novels in module 1, module 2, or a work of literary merit.
• AP practice essay on prose – character, protagonist, antagonist

Projects:
Students choose one of the following:
• Storyboard to trace the journey of Heart of Darkness
• Create a character shield.

Exams:
Quizzes on works of literature, essay on Heart of Darkness (banked topics noted above)

Estimated Completion Time: 4 weeks

Module 4:
Topics Addressed:
lyric poetry, sonnet, iambic pentameter, rhyme scheme, pattern, tone, mood, voice, style, women in literature, research paper, poetry analysis, literary criticism

Readings:
• Wuthering Heights by Emily Brontë
• "To His Coy Mistress" by Andrew Marvell
• "The Valediction: Forbidding Mourning" by John Donne
• "My Mistress' Eyes" by William Shakespeare
• "Shall I Compare Thee" by William Shakespeare
• "How Do I Love Thee?" by Elizabeth Barrett Browning
• "Remembrance" by Emily Brontë
• "A Haunted House" by Virginia Woolf
• "The Gift of the Magi" by O. Henry

Choose one of the following major works read in module 1, module 2, or a work of literary merit, for research paper.

Essays:
Timed essay: relevance of Wuthering Heights in today's society

Projects:
• Compare the song "Fortress Around Your Heart" song by The Police to Wuthering Heights using a Venn diagram.
• Compare the actions and feelings of Heathcliff in the final chapter of Wuthering Heights to the feelings of the speaker in the final stanza of "Remembrance."
• Research paper on a single work of literature using one of the choices noted above.
• Write an original sonnet.

**Exams:**
Quizzes on works of literature, oral exam, timed essay (topic noted above),
Multiple Choice practice exam, Semester Exam

**Estimated Completion Time:** 4 weeks

**Semester Two**

**Objectives:**

• Develop a wide-ranging vocabulary used with denotative accuracy and
  connotative resourcefulness.

• Use a variety of sentence structures, including appropriate use of
  subordinate and coordinate constructions.

• Develop a logical organization, enhanced by specific techniques of
  coherence such as repetition, transitions, and emphasis.

• Create a balance of generalization with specific illustrative detail.

• Write with an effective use of rhetoric, including controlling tone,
  maintaining a consistent voice, and achieving emphasis through
  parallelism and antithesis.

• Write informally about what you think in the process of writing about
  your reading.

• Create a research document, which includes analysis of literary
  elements and negotiation of differing critical perspectives.

• Write effectively under the time constraints on essay exams in college
  courses in many disciplines, including English.

• Analyze authors' narrative techniques, like use of figurative language,
  imagery, symbolism, and tone.

• Evaluate and develop composition skills in areas of structure, style, and
  theme. Study representative literary works from various genres and
  periods.

• Understand a work's complexity, to absorb its richness of meaning, and
  to analyze how that meaning is embodied in literary form.

• Reflect on the social and historical values a literary work reflects and
  embodies.

• Experience, interpret, and evaluate a work of literature with
  consideration to its social and cultural values writing response and
  reaction papers.

• Write for a variety of purposes.

• Analyze and interpret aspects of language and structure.

• Make and explain judgments analyzing and interpreting the material
  involves students in learning how to make careful observations of textual
  detail, establish connections among their observations, and draw from
  those connections a series of inferences leading to an interpretive
  conclusion about a piece of writing's meaning and value.

• Have an awareness of literary tradition and the complex ways in which
imaginative literature builds upon the ideas, works, and authors of earlier times.

- Analyze a work of literature in regards to its artistry and explore its underlying social and cultural values through analysis, interpretation, and argument.
- Write and read with increasing complexity and sophistication.
- Analyze short prose passages and poems and through practicing with "open" analytical questions.
- Analyze a passage or poem in which students are required to discuss how particular literary elements or features contribute to meaning.
- Select a literary work and discuss its relevant features in relation to questions provided.

Module 5:
Topics Addressed:
setting, character, protagonist/antagonist, stereotyping, imagery, tone, mood

Readings:
- *The Grapes of Wrath* by John Steinbeck
- "Good Times" by Lucille Clifton
- "Queens, 1963" by Julia Alvarez
- "Daddy" by Sylvia Plath
- "Life with Father" by Walter McDonald
- "Do Not Go Gentle Into that Good Night" by Dylan Thomas
- "The Lottery" by Shirley Jackson
- "Everyday Use" by Alice Walker

Essays:
- Timed essay on prose: tone and mood
- Students will receive one of the following banked essay topics:
  - connect society’s stereotypes with the theme(s) of *The Grapes of Wrath*
  - analyze how a novel's title develops the meaning of the work
  - choose a scene from *The Grapes of Wrath* and analyze its relationship to the novel and its significance to the novel's meaning
  - analyze the attitudes, traditions, and stereotypes John Steinbeck wishes to change in *The Grapes of Wrath*
  - analyze a scene portraying a social occasion in *The Grapes of Wrath* for its significance to the meaning of the novel
  - analyze the physical journey that takes place in *The Grapes of Wrath* for its importance to the overall meaning of the novel.

Exams:
quizzes on all works of literature, timed essay (topic noted above), multiple
choice practice exam

Estimated Completion Time: 4 weeks

Module 6:
Topics Addressed:
allusion, soliloquy, trilogy, irony, rhyme, rhythm, repetition, alliteration, imagery

Readings:
- Hamlet by William Shakespeare
- Oedipus the King by Sophocles (translated by F. Storr)
- "The Book of Sand" by Jorge Luis Borges
- "The Lovesong of J. Alfred Prufrock" by T.S. Eliot
- "A Poison Tree" by William Blake
- "Prisoner of Chillon" by Lord Byron
- "Paul's Case" by Willa Cather
- "A Jury of Her Peers" by Susan Glaspell

Essays:
- Timed Essay: Students will receive one of the following banked topics:
  - analyze the ghost's role in Hamlet
  - analyze the conflict a character experiences in a major work
  - identify a mystery in a major work and explain its contribution to the overall meaning of the work
  - analyze an author's use of psychological events in a major work
  - analyze a conflict between a parent and child for its impact on the meaning of the work

Projects:
Students will choose from the following
- Connect Shakespeare and art
- Compare Hamlet to the movie The Lion King
- Bio-Poem for Historical or Literary Character
- Analysis of Hamlet the movie

Exams:
Quizzes on all works, oral exam, timed essay (topics noted above), multiple choice practice exam

Estimated Completion Time: 4 weeks

Module 7:
Topics Addressed:
imagery, point of view, plot, character, tone, mood, stereotypes, fairy tales

Readings:
- The Awakening" by Kate Chopin
- "Aunt Jennifer’s Tigers" by Adrienne Rich
• "Barbie Doll" by Marge Piercy
• "Woman Work" by Maya Angelou
• "Quinceanera" by Judith Ortiz Cofer
• "The Yellow Wallpaper" by Charlotte Perkins Gilman
• "To Autumn" by John Keats

**Essays:**
- Essay on Prose – point of view
- Timed Essay: Students will receive one of the following banked topics:
  - the significance of the title *The Awakening* and how it contributes to the overall meaning of the work
  - identify a healthy confusion or disquietude in *The Awakening* and explain its significance to the overall work
  - identify psychological events in a major work, analyze how they are developed in the work, and how they contribute to the work's overall meaning
  - identify a character who conforms to society but mentally questions that conformity, and analyze how those conflicting events contribute to the work's overall impact and meaning
  - the struggle for power in a novel and how it enhances the meaning of the work

**Projects:**
- Choose a popular fairy tale and rewrite it from a different point of view
- Digital storytelling: contrasting main characters in major works

**Exams:**
- Quizzes on all works, timed essay (topics noted above)

**Estimated Completion Time:** 4 weeks

**Module 8:**
**Topics Addressed:**
satire, irony, musical adaptation, tone, theme, point of view

**Readings:**
- *The Importance of Being Earnest* by Oscar Wilde
- "The History Teacher" by Billy Collins
- "Richard Cory" by Edwin Arlington Robinson
- "Ozymandias" by Percy Bysshe Shelley
- "The Cask of Amontillado" by Edgar Allan Poe
- *A Modest Proposal* by Jonathan Swift

**Essays:**
- Timed Essay on poetry – satire and irony
- Students will receive one of the following banked essay topics:
  - choose a scene containing thoughtful laughter and analyze its
contribution to the work overall
  o choose a morally ambiguous character and analyze his or her significance to the work overall
  o identify standards of a fictional society and analyze how a character’s responses to those standards develop the theme of the work overall
  o the significance of a work's title and how it develops the overall meaning of the work
  o discuss the significance of recurring events in a work; use of contrasting settings in a major work and how they develop meaning in the work

Exams:
Quizzes on all works, oral exam, essay (banked topics noted above)

Estimated Completion Time: 4 weeks

Module 9: Project Module

Readings:
Students will choose one of the following works:
  • Things Fall Apart by Chinua Achebe
  • Cry, the Beloved Country by Alan Paton
  • Othello by William Shakespeare
  • House Made of Dawn by N. Scott Momaday

Projects:
Write an original dialogue depicting a scene between characters in major works you have read throughout the course, and a character or characters from the novel read in this module.

Exams:
Test on major work

Estimated Completion Time: 2 weeks
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ENVIRONMENTAL SCIENCE
Name of the Course
AP Environmental Science

Textbooks for class consultation:


Supplementary Course Texts and Ancillary Materials


Resources

Required reading texts are included within the course as lectures, Power Point presentations, Internet resources, and course outlines. Topics included are in compliance with the College Board AP guidelines and recommendations. All required and recommended reading is linked appropriately within each scheduled lesson in accordance with copyright law.

Course Prerequisites

Students taking AP Environmental Science should have completed two years of high school science consisting of one year of biology and one year of either physical science or chemistry. Students should also have completed Algebra 1.

Course Goal

Students will master the practical concepts and applications of environmental science at an advanced high school level in accordance with the College Board AP Environmental Science guidelines.

Course Objectives

At the conclusion of the course, students will be able to:

- Define science as a process.
- Discuss science as a method of learning more about the world.
- Describe how science constantly changes the way we understand the world.
- Discuss how energy conversions underlie all ecological processes.
• Explain that energy cannot be created but that it must come from somewhere.
• Illustrate the properties of energy flow within systems.
• Describe the Earth as one interconnected system.
• Examine how natural systems change over time and space.
• Analyze how biogeochemical systems vary in the ability to recover from disturbances.
• Describe how humans alter natural systems.
• Identify the impact that humans have had on the environment for millions of years.
• Discuss how technology and population growth have enabled humans to increase both the rate and scale of their impact on the environment.
• Identify environmental problems as having a cultural and social context.
• Understand and explain the role of cultural, social, and economic factors and explain how they are vital to the development of solutions.
• Discuss how human survival depends upon developing practices that achieve sustainable systems.
• Determine a suitable combination of conservation and development is required to reach sustainability.
• Examine how management of common resources is essential to reaching a sustainable environment.

Learning Outcomes

At the conclusion of this course, students will thoroughly understand the practical concepts and applications of environmental science at an advanced high school level and be well prepared to participate in the AP Environmental Science Exam.

Assessments

Assessments are conducted and submitted online in compliance with accreditation standards. Assessments are created using all 6 levels of Bloom's Taxonomy, but primarily focused on analysis, synthesis and evaluation and will incorporate 3 different learning styles, so students are challenged to learn at all levels. Assessment questions appear in a variety of formats: True/False, Define/Identify, Multiple Choice, Map Identification, Multiple Answer, Lab Write-ups Discussion-based, Short Answer, Projects and Essay. Assessments are comprehensive of the lesson content and some are conducted in a timed online environment.

Course Long Plan

Course Description

AP Environmental Science is a 1 credit course with 10 units of study. Each unit takes 20-25 hours to complete and includes online readings, laboratory experiments, interactive activities, threaded discussion, peer-to-peer learning, and a variety of formative and summative assessments. Although the course is structured to accommodate seat time requirements in some states, students may progress at their own speed throughout the course.

The goal of AP Environmental Science is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world and to identify and analyze environmental problems that are both natural and human-made. Students will evaluate the relative risks associated with these problems and examine alternative solutions for resolving or preventing problems. Required laboratory Internet-based activities are included with each unit, each
taking a minimum of one hour to complete. Additionally, hands-on laboratory assignments are included in each unit to challenge student abilities on the following tasks:

- Critically observe environmental systems
- Develop and conduct well-developed experiments
- Analyze and interpret data, including appropriate statistical and graphical presentations
- Think analytically and apply concepts to the solution of environmental problems
- Make conclusions and evaluate their quality and validity
- Propose further questions for study
- Communicate accurately and meaningfully about observations and conclusions

Environmental science is interdisciplinary; the course includes a wide variety of topics from different disciplinary areas. The course is organized in accordance with six themes:

- **Science is a process**
  - a. Science is a method of learning more about the world.
  - b. Science constantly changes the way we understand the world.

- **Energy conversions underlie all ecological processes.**
  - a. Energy cannot be created; it must come from somewhere.
  - b. As energy flows through systems, it becomes less usable at each step.

- **The Earth is one interconnected system.**
  - a. Natural systems change over time and space.
  - b. Biogeochemical systems vary in ability to recover from disturbances.

- **Humans alter natural systems**
  - a. Humans have an impact on the environment and have had for millions of years.
  - b. Technology and population growth have enabled humans to increase both the rate and scale of their impact on the environment.

- **Environmental problems have a cultural and social context.**
  - a. Understanding the role of cultural, social, and economic factors is vital to the development of solutions.

- **Human survival depends upon developing practices that achieve sustainable systems.**
  - a. A suitable combination of conservation and development is required to reach sustainability.
  - b. Management of common resources is essential to reaching a sustainable environment.

Throughout the course, students are given the opportunity to participate in critical thinking exercises which require research, analysis and presentation. Lessons, written with a global perspective in mind, enable students to collaborate with students around the world on projects, presentations, and assignments. Students develop 21st century skills, including cross-border perspectives and solutions, and apply “tangible” skills such as language proficiency as well as skills that are less tangible, including greater sensitivity to cultural differences, openness to new and different ideas, and the ability to adapt to change (as stated by the Partnership for 21st Century Skills).

This course is designed to be highly teacher facilitated. Instructors give a great deal of specific and timely feedback per lesson as students progress through the course. Students have opportunities for oral examinations, discussions, and whiteboard interactions. Additionally, teachers conduct online synchronous Elluminate sessions that require critical thinking and analysis.

In addition, this course is accompanied by an online tutorial and review that uses released AP Exams. Students are given systematic and timed practice for all portions of the exam. Students receive specific feedback on progress and mastery levels on the practice exams.

**Laboratory Experience**
Laboratory activities are a critical component of the AP Environmental Science course. There are 22 labs provided for students to learn about the environment through experience. These 22 labs are completed through a variety of methodologies including hands-on student conducted labs and virtual or simulated labs. Simulated activities are correlated to the corresponding AP Lab and structured so that students are familiar with key concepts, experimental design, and data analysis as presented in the lab write-ups. At all stages of lab work, students have one-on-one access to their instructors. Synchronous opportunities, such as graded oral assessment, phone calls, chats and/or whiteboard sessions, are utilized to maximize student understanding of lab processes, design and concepts.

Lab Materials:
This AP Environmental Science course will utilize a variety of household items in its hands-on labs. Few items listed will require purchase from a local grocery or home improvement store.

For a list of the AP Environmental Science Labs and required materials, please go to: http://develop.flvs.net/Collaborate/ravery/educator_ap_environ_aplabs/

Conceptual Connections and/or Skills:
The AP Environmental Science course promotes connection to concepts by providing students with opportunities for manipulation of information and ideas related to the major topics and themes through a variety of methodologies including:

- reading of the course content
- readings and activities from text referenced sources, ancillary texts, and a wide variety of current, external Web resources
- use of interactive content components in which data is often collected and analyzed
- streaming video and multimedia components that dimensional learning opportunities
- expression of thought and understanding through writing
- exposure to released AP Environmental Science tests and practice with free response question types
- student-conducted hands-on and simulated laboratory investigations

Student assessment occurs at a variety of levels throughout the course. Students are assessed via discussion-based assessment and other synchronous sessions. Actual course assessment types include student assessed work, auto-graded, partially auto-graded, and totally instructor graded assignments.

Course Outline

Each module of study contains the following:

- Readings
- Supplemental Online Readings
- Map and Data Sets
- Mapping Activities
- Laboratory Experiments and Activities
- Interactive Online Activities
- Threaded Discussion
- Discussion-based (oral assessment)
- Formative and Summative Assessments
---Semester 1--- (18 Weeks)

Topics, Themes and Laboratory Experiences (by module)

- **Module 1** (Environmental Science and Sustainability)
  - **The main themes** covered in module 1 include: Science as a process, The Earth is one interconnected system, Environmental problems have a cultural and social context, and Human survival depends upon developing practices that achieve sustainable systems.
  - **The topics** covered will include: strategies for sustainability, sustainable land use strategies, resource use, Tragedy of the Commons, relevant laws and treaties, scientific method, worldviews, economic impacts, cost-benefit analysis, external costs, marginal costs, sustainability, Agricultural Revolution, Industrial Revolution.
  - **The lab experience** in module 1 will be:
    - **1.01 Sustainability Lab** (60 – 90 minutes) - This lab activity is a hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. The Sustainability lab is an activity that focuses student attention on creating a sustainable island using resources provided. Students will create a data table and graph to depict their outcomes and evaluate the effectiveness of their choices during the lab.
    - **1.04 Experimental Design** (60 minutes) - This activity inspires students to design a lab based on choice scenarios. Students will incorporate the Scientific Method in developing their experimental design.
    - **Research and Design Project: Eco-Vacations** - (120 minutes) - Students collaboratively research and design a “green” vacation. Project includes information on transportation, lodging, food, and entertainment options, evaluating different choices for their environmental impact. Cost calculations are included.

- **Readings and Ancillary Resources**
  - “The Tragedy of the Commons” by Garrett Hardin [http://dieoff.org/page95.htm](http://dieoff.org/page95.htm)

- **Module 2** (The Living World)
  - **The main themes** covered in this module include: Science as a process, Energy Conversions underlie all ecological processes, The Earth is one interconnected system, Humans alter natural systems, Environmental problems have a cultural and social context, and Human survival depends upon developing practices that achieve sustainable systems.
  - **The topics** in this module include: biological populations and communities, ecological niches, interactions among species, keystone species, species diversity, photosynthesis, cellular respiration, laws of thermodynamics, food webs, trophic levels, ecological pyramids, biodiversity, natural selection, evolution, ecosystem resources, ecological succession, natural biogeochemical cycles (carbon, nitrogen,
The lab experiences in module 2 will be:

- **2.02 Eating at a Lower Trophic Level Activity (60 minutes)** - Students hypothesize and predict the effect of human food consumption at lower trophic levels. Students then perform calculations based on provided data to create an energy pyramid and biomass pyramid. Additionally, students calculate the number of humans that could be supported at the various trophic levels and evaluate the feasibility of vegetarian diets for the world’s population.

- **2.04 Cloud Lab (60 minutes)** - This lab activity is a hands-on, student-conducted lab during which the student carries out the experiment using materials gathered at home. The student simulates the hydrologic cycle within a plastic bottle to create a cloud.

- **2.07 Predatory/Prey Lab (90 minutes)** - This lab activity is a student-manipulated virtual simulation. Students experiment with the relationship between killer whales and seals. Students design three different experiments and test their assumptions by manipulating their choice of five different variables: initial predator population, initial prey population, prey growth rate, predator death rate, and capture efficiency. Data is collected and evaluated in a formal lab write-up with proposed ideas for future experiments.

Readings and Ancillary Resources

- Bagheera: A Website for Earth’s Endangered Animals

- Ecological Studies of Wolves on Isle Royale
  [http://www.isleroyalewolf.org/ann_rep_pdf/ISRO_annrep07-08.pdf](http://www.isleroyalewolf.org/ann_rep_pdf/ISRO_annrep07-08.pdf)

Module 3 (The Living World)

The main themes covered in module 3 include: Science as a process, The Earth is one interconnected system, Humans alter natural systems, Environmental problems have a cultural and social context, and Human survival depends upon developing practices that achieve sustainable systems.

The topics covered will include: weather and climate, seasons, solar intensity and latitude, major terrestrial and aquatic biomes, plate tectonics, earthquakes, volcanism, greenhouse gases and the greenhouse effect, rock cycle, mineral formation, extraction, global mining reserves, relevant laws and treaties.

The lab experiences in module 3 will be:

- **3.02 Water Lab on Sustainability (90 minutes)** - This lab activity is a student-manipulated virtual simulation. Students experiment with sustainability, balancing a fish population with human harvesting, environmental variations, and carrying capacity. Students design three different experiments and test their assumptions by manipulating their choice of five different variables. Data is collected and evaluated in a formal lab write-up with proposed ideas for future experiments.

- **3.04 Cookie Mining Lab (60-90 minutes)** – This lab activity is a hands-on, student-conducted lab during which the student carries out the experiment using materials gathered at home. Students simulate mining and reclamation activities, including economic considerations and calculations. Students...
arrange loan, purchase or rent equipment and resources, calculate recovery percentage and profit/loss. Students discuss relevant mining laws and reclamation effectiveness.

- **Readings and Ancillary Resources**
  - Hippocampus Educational Resources
    [http://www.hippocampus.org/AP%20Environmental%20Science](http://www.hippocampus.org/AP%20Environmental%20Science)
  - Major Biomes of the World

- **Module 4 (Population)**
  - **The main themes** covered in module 4 include: Science is a process, The Earth is one interconnected system, Humans alter natural systems, Environmental problems have a cultural and social context, and Human survival depends upon developing practices that achieve sustainable systems.
  - **The topics** covered will include: historical population sizes, human population distribution, fertility rates, growth rates and doubling times, demographic transition, age-structure diagrams, case studies, national policies, economic effects, carrying capacity, survivorship, reproductive strategies, tree plantations, old growth forests, forest fires, forest management, national forests, federal rangelands, deforestation, public and federal lands, relevant laws and treaties.
  - The lab experiences in module 4 will be:
    - **4.02 Lab on Habitat Loss** (90 minutes) – This is a student-manipulated virtual simulation lab. Students experiment with habitat loss and its effect on species populations. Variables to be manipulated are habitat loss rate, habitat loss amount, and food production rate. Students design two different experiments and test their assumptions by manipulating the variables, obtaining output data on population, carrying capacity, and the effects of habitat fragmentation. Data is collected and evaluated in a formal lab write-up with proposed ideas for future experiments.
    - **4.03 Cemetery Lab** – (120 minutes) - This lab activity is a hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. The students then collect and compare age-specific mortality data from gravestones in two cemeteries, one representing a historical population, and the other, a modern one. Students construct life tables and graphically illustrate survivorship and mortality rates.
    - **4.04 Tree Lab** (120 min) – This is a hands-on lab activity and math practice. Students measure circumference of a tree and the length of its shadow. Using geometry, students calculate tree diameter and height. Using US Forest Service models, students then calculate tree weight, dry weight, and mass of carbon in tree. Using percent composition, students calculate mass of carbon dioxide sequestered by tree. Stoichiometric calculations allow students to calculate the gallons of combusted gasoline their tree represents. Students evaluate the number of trees needed to sequester one family’s yearly gasoline combustion and the accuracy of mathematical models.

- **Readings and Ancillary Resources**
  - US Census Bureau Age Structure diagrams
    [http://www.census.gov/ipc/www/idb/pyramids.html](http://www.census.gov/ipc/www/idb/pyramids.html)
  - The Population Reference Bureau: “India’s Population” Case Study
Module 5 (Energy)

The main themes in module 5 include: Science is process, Energy Conversions underlie all ecological processes, The Earth is one interconnected system, Humans alter natural systems, Environmental problems have a cultural and social context, and Human survival depends upon developing practices that achieve sustainable systems.

The topics covered will include: energy forms, power, units, conversions, global energy use, formation of coal, oil, and natural gas, extraction methods, world reserves, global demand, nuclear fission process, nuclear fuel, electricity production, nuclear reactor types, safety issues, radioactive wastes, dams, flood control, hydroelectric power, energy conservation, solar energy, hydrogen fuel cells, biomass, wind energy, ocean waves and tidal energy, geothermal, environmental advantages and disadvantages for all types of energy production, relevant laws and treaties.

The lab experiences in module 5 will be:

- **5.01 Energy Flow Lab** (90 minutes) – This is a student manipulated virtual simulation lab. Students experiment with the energy use of a home that has several sources of energy available: wind power, a hydropower system that stores elevated water with excess wind energy, and a gasoline-powered electric generator. Variables to be manipulated are wind speed, energy usage rate, and water tank capacity. Students design three different experiments and test their assumptions by manipulating the variables, obtaining output data on all energy production and consumption. Data is collected and evaluated in a formal lab write-up with proposed ideas for future experiments.

- **5.06 Global Energy Options** (90 minutes) – This is a student manipulated virtual simulation lab. Students manipulate sources for the world, adjusting the percentage of energy use from coal, oil, natural gas, solar power, wind power, biofuel, hydro power and nuclear power. Students can also manipulate energy efficiencies and carbon sequestration rates. Based on these variables, students attempt to achieve equilibrium between energy supply and demand, while maintaining atmospheric CO2 levels below 500 ppm. Data is collected and evaluated in a formal lab write-up with predictions for the world’s future.

- **5.07 Hands-on Personal Energy Assessment Lab** – (180 min) - This lab activity is a hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. Students conduct energy use audit of their family home over a one week period. Energy use is categorized and summarized in table format. Students then calculate kilowatt hours, cost information, and evaluate fuels for electricity production.

- **5.08 Global Warming Lab** – (90 min) – This is a student manipulated virtual simulation lab. Students experiment with a simple model of global warming, balancing greenhouse forcing, feedback loops, and time. Students design two different experiments and test their assumptions by manipulating their choice of three different variables, obtaining output data on albedo and
surface temperature. Data is collected and evaluated in a formal lab write-up with proposed ideas for future experiments.

- **Readings and Ancillary Resources**
  - “The Big Energy Gamble” PBS Nova
    [http://www.pbs.org/wgbh/nova/energy/program.html](http://www.pbs.org/wgbh/nova/energy/program.html)
  - Coal Mine Virtual Tour
    [http://www2.illinoisbiz.biz/coal/virtualtour/index.html](http://www2.illinoisbiz.biz/coal/virtualtour/index.html)
  - Chernobyl Accident

--- Semester 2 --- (18 Weeks)

Topics, Themes and Laboratory Experiences (by module)

**Module 6 (The Atmosphere and Climate Change)**

- **The main themes** in module 6 include: Science as a process, The Earth is one interconnected system, Humans alter natural systems, Environmental problems have a cultural and social context, and Human survival depends upon developing practices that achieve sustainable systems.

- **The topics** covered in this module include: composition of the atmosphere, stratospheric ozone, primary and secondary air pollution, major air pollutants, smog, thermal inversions, indoor air pollution, acid deposition causes and effects, human health effects of air pollution, Clean Air Act and other relevant laws and treaties.

- **The lab experiences** in module 6 will be:
  - **6.00 Collaborative Lab on Solid Waste** (240 minutes) – This lab activity is a long-term, hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. Students collaboratively design their own experiment, focusing on sound scientific experimentation. The degradability of various landfill items is evaluated over several weeks in simulated landfill conditions. Students collect data, graph data, and evaluate/interpret results.
  - **6.01 Air Pollution Lab**: (90 minutes) – This is a student manipulated virtual simulation lab activity. Students experiment with the release of air pollutants from a tall smokestack located on a flat plain. The atmosphere is modeled with a simple set of factors: wind, temperature, diffusion, and convection. Variables to be manipulated are temperature gradient in the atmosphere, humidity, and wind speed. Students design three different experiments and test their assumptions by manipulating the variables, obtaining output data on the vertical and horizontal dispersion of the pollutants. Data is collected and evaluated in a formal lab write-up with proposed ideas for future experiments.
  - **6.05 Climatography Activity**: (60 minutes) – This is a hands-on student conducted lab. Students create climatographs using precipitation/temperature data for known biomes. Unknown biome climate data is presented to students for graphing and biome determination.

- **Readings and Ancillary Resources**
  - El Nino Theme Page
    [http://www.pmel.noaa.gov/tao/elnino/nino-home.html](http://www.pmel.noaa.gov/tao/elnino/nino-home.html)
Module 7 (Soil)

- **The main themes** in module 7 include Science as a Process, The Earth is one interconnected system, Humans alter natural systems, Environmental problems have a cultural and social context, Human survival depends upon developing practices that achieve sustainable systems.

- **The topics** covered in this module include soil formation, composition, physical and chemical properties, soil types, erosion, soil conservation, deforestation, irrigation, types of agriculture, Green Revolution, genetic engineering, sustainability, food distribution, hunger, human nutritional requirements, fishing techniques, overfishing, aquaculture, types of pesticides, costs and benefits of pesticide use, integrated pest management, relevant laws and treaties.

- **The lab experiences** in module 7 will be:
  - 7.01 Soil Lab (90 minutes) – This is a hands-on student conducted lab. Students perform hands-on investigation of soil near their home, evaluating horizons and physical/chemical characteristics of soil (texture, permeability, leaching). Data is recorded and plotted on interactive map, and students compare/contrast their local soil type with soil types from other locations.
  - 7.02 Experimental Design (60 minutes) - This is a suggested activity that inspires students to design a lab based on desertification. Students will incorporate the Scientific Method in developing their experimental design.
  - 7.06 Hands-on Lab on Pest Management: (60 minutes) – This is a hands-on student conducted lab. Students examine household food products for pests, identifying them with the help of online resources. Students investigate integrated pest management and propose different methods of pest control.

- **Readings and Ancillary Resources**
  - New Neighbors: Suburbs and Pesticides
  - Rachel Carson Council: “Pesticides, Chemicals, and Alternatives”

Module 8 (Water)

- **The main themes** in module 8 include Science as a Process, The Earth is one interconnected system, Humans alter natural systems, Environmental problems have a cultural and social context, and Human survival depends upon developing practices that achieve sustainable systems.

- **The topics** covered in this module include global water resources, water use, surface and groundwater issues, global water problems, water conservation, dissolved oxygen, watersheds, floodplains, water pollution types and sources, groundwater pollution, maintaining water quality, water purification, wastewater treatment, Clean Water act, relevant laws and treaties.

- **The lab experiences in** module 8 will be:
  - 8.02 Hands-on Water Usage Lab: (90 minutes) – This lab activity is a hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. Students collect and average data for water use while brushing teeth with water continuously running and water running only when necessary. Data is collected for at least three individuals and averaged. Students calculate savings in gallons per person, gallons per town, gallons per state, and gallons per country.
Calculations are repeated using a standard cost per gallon to determine monetary savings. Students evaluate other water saving methods for their own family, and develop government programs to encourage water conservation.

- 8.03 Virtual Lab on Water Pollution: (120 minutes) – This is a student manipulated virtual simulation lab activity involving water sampling.

**Readings and Ancillary Resources**
- Florida Estuaries
  [http://kwanga.net/apesnotes/estuary-article.pdf](http://kwanga.net/apesnotes/estuary-article.pdf)
- DC Water and Sewer Virtual Tour
  [http://www.dcwas.com/about/vtour/virtual_tour.html](http://www.dcwas.com/about/vtour/virtual_tour.html)

**Module 9 (Toxicology and Risk)**
- The main themes in module 9 are Science as a Process, Environmental problems have a cultural and social context, and Human survival depends upon developing practices that achieve sustainable systems.
- The topics covered in this module include risk analysis, acute and chronic effects, dose response relationships, smoking, types of hazardous waste, treatment/disposal of hazardous wastes, cleanup of contaminated sites, remediation, mitigation, restoration, epidemiology, toxicology, relevant laws and treaties.

- The lab experiences in module 9 will be:
  - 9.03 Human Health Dose Response Activity: (90 minutes) – This is a student manipulated virtual simulation lab. Students experiment with a linear-fit zero-threshold dose-response curve. Variables to be manipulated are dose and number of individuals tested. Students design three different experiments and test their assumptions by manipulating the variables, obtaining output data and creating dose-response curves. Data is collected and evaluated in a formal lab write-up with proposed ideas for future experiments.

**Readings and Ancillary Resources**
- National Library of Medicine: Tox Town

**Module 10 (Recycling and Sustainability)**
- The main themes in module 10 are Science as a Process, The Earth is one interconnected system, Humans alter natural systems, Environmental problems have a cultural and social context, and Human survival depends upon developing practices that achieve sustainable systems.
- The topics covered in this module include solid waste types, solid waste disposal, reduction, landfills, recycling, reuse, relevant laws and treaties.

- The lab experiences in module 10 will be:
  - 10.01 Hands-on Personal Garbage Analysis: (120 minutes) – This lab activity is a hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. Students sort and analyze family household garbage, categorizing each item and calculating percentages for each category. Family data is then compared to national averages and student evaluates family solid waste production by category. Waste reduction plans are created and analyzed.
Readings and Ancillary Resources

- The Green Guide for Everyday Living
  http://www.thegreenguide.com/
- Superfund: US EPA
  http://www.epa.gov/superfund/
- Landfill Virtual Tour
  http://www.rumpke.com/Landfill/Virtual_Tour.asp

---Long-term Projects and Field Experience---

**Long-term Projects**

- **6.00 Collaborative Lab on Solid Waste** (240 minutes) – This lab activity is a long-term, hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. Students collaboratively design their own experiment, focusing on sound scientific experimentation. The degradability of various landfill items is evaluated over several weeks in simulated landfill conditions. Students collect data, graph data, and evaluate/interpret results.

**Field Experience**

- **4.03 Cemetery Lab** – (120 minutes) - This lab activity is a hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. The students then collect and compare age-specific mortality data from gravestones in two cemeteries, one representing a historical population, and the other, a modern one. Students construct life tables and graphically illustrate survivorship and mortality rates.

- **4.04 Tree Lab** (120 min) – This is a hands-on lab activity and math practice. Students measure circumference of a tree and the length of its shadow. Using geometry, students calculate tree diameter and height. Using US Forest Service models, students then calculate tree weight, dry weight, and mass of carbon in tree. Using percent composition, students calculate mass of carbon dioxide sequestered by tree. Stoichiometric calculations allow students to calculate the gallons of combusted gasoline their tree represents. Students evaluate the number of trees needed to sequester one family’s yearly gasoline combustion and the accuracy of mathematical models.

- **5.07 Hands-on Personal Energy Assessment Lab** – (180 min) - This lab activity is a hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. Students conduct energy use audit of their family home over a one week period. Energy use is categorized and summarized in table format. Students then calculate kilowatt hours, cost information, and evaluate fuels for electricity production.

- **8.02 Hands-on Water Usage Lab**: (90 minutes) – This lab activity is a hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. Students collect and average data for water use while brushing teeth with water continuously running and water running only when necessary. Data is collected for at least three...
AP Environmental Science Syllabus

individuals and averaged. Students calculate savings in gallons per person, gallons per town, gallons per state, and gallons per country. Calculations are repeated using a standard cost per gallon to determine monetary savings. Students evaluate other water saving methods for their own family, and develop government programs to encourage water conservation.

- **10.01 Hands-on Personal Garbage Analysis**: (120 minutes) – This lab activity is a hands-on, student conducted lab during which the student carries out the experiment using materials gathered at home. Students sort and analyze family household garbage, categorizing each item and calculating percentages for each category. Family data is then compared to national averages and student evaluates family solid waste production by category. Waste reduction plans are created and analyzed.
ADVANCED PLACEMENT®
HUMAN GEOGRAPHY
Course Description

AP Human Geography is a rigorous, entry level college, 1 credit course with 10 units of study. Each unit takes an average of 2-5 weeks (1-2.5 weeks for block schedule students) to complete and includes online readings, interactive activities, threaded discussion, peer-to-peer learning, and a variety of formative and summative assessments. Although the course is structured to accommodate seat time requirements in some states, students may progress at their own speed throughout the course with the goal of completing the course and being best prepared for the May Advanced Placement Exam.

Additionally, interactive assignments are included in each unit/module to challenge student abilities on the following tasks:

- critically observe human systems
- study and evaluate case studies
- develop and conduct well-developed analysis of cultures, peoples and their environments.
- analyze and interpret data, including appropriate statistical and graphical presentations
- think analytically and apply concepts to the solution of geographic problems
- make conclusions and evaluate their quality and validity
- propose further questions for study
- communicate accurately and meaningfully about observations and conclusions

Human Geography is by nature an interdisciplinary course. The units/modules are organized around the topics of population, migration, culture, language, religion, ethnicity, political geography, urban structures and land use, political structures, agricultural systems and land use and industrialization and economic development.

Throughout the course, students are given the opportunity to participate in critical thinking exercises which require research, analysis and presentation. Lessons, written with a global perspective in mind, enable students to collaborate with students around the world on projects, presentations, and assignments. Students develop 21st century skills, including cross-border perspectives and solutions, and apply “tangible” skills such as language proficiency as well as skills that are less tangible, including greater sensitivity to cultural differences, openness to new and different ideas, and the ability to adapt to change (as stated by the Partnership for 21st Century Skills). Career connections are built into each module.

This course is designed to be highly teacher facilitated by certified teachers that have attended College Board trainings in the area of Advanced Placement Human Geography. Students have opportunities for oral examinations, discussions, and whiteboard interactions. Additionally, teachers conduct online synchronous Blackboard Collaborate sessions that require critical thinking and analysis.

In addition, this course is accompanied by an online tutorial and review that uses released AP Exams. Students are given systematic and timed practice for all portions of the exam. Students receive specific feedback on progress and mastery levels on the practice exams in effort to better prepare themselves for the Advanced Placement exam in May.
Course Goal

Students will seek to master the practical concepts and applications of an entry college level human geography course in accordance with the College Board AP Human Geography guidelines. Likewise they will be prepared to take the College Board AP test in May.

At the conclusion of the course, students will be able to:

- Define human geography as a discipline that helps them understand the patterns and processes that have shaped the human understanding, use, and alterations of the Earth’s surface.
- Discuss the changing interconnections among places focuses on people in their spatial patterns, their cultural variations, spatial systems and human-environmental interrelationship.
- Analyze and studies how culture and basic needs affect all human interaction.
- Understand how the concept of diffusion and movement is a key concept in understanding how cultural traits move through time and space, and in turn change and shape population.
- Define the regions and evaluate the regionalization process and changes occurring at the local and global level.
- Examine land use and its variations from the geographical perspective.
- Examine and evaluate the basic economics concepts and its impact on people, resources and economic development at the local, regional and global level.
- Evaluate how and why political patterns reflect ideas about how Earth’s surface should be organized and affect a wide range of activities and understanding.
- Understand the theories of urban development and the relationship of city-structure to geography and vice-versa.

Learning Outcomes

At the end of this course the student will have a solid understanding of the patterns and processes that have shaped the human understanding, use, and alterations of the Earth’s surface. Students will know how to analyze maps and spatial data sets. They will be able to define the regions and evaluate the regionalization process that is happening at a global level. Emphasis will be placed on the dynamic nature of geography, the development of analytical skills, and the application of geographical concepts.

Textbooks for class consultation:


Supplementary Websites


Discovery Education: http://www.discoveryeducation.com/ (Course videos are clips)

Kaiser Family Foundation: http://www.globalhealthfacts.org/

Migration Policy Institute: http://www.migrationinformation.org/

National Geographic: http://www.nationalgeographic.com/

The UN Cyberschoolbus: http://cyberschoolbus.un.org/


US Census Bureau: http://www.census.gov/population/international/

USA.gov: http://www.usa.gov/

World Data Bank: http://data.worldbank.org/country

Yale Divinity School Library: http://guides.library.yale.edu/freeweb

Resources

Required reading texts are included within the course as lectures, PowerPoint presentations, internet resources, and course outlines. This is a self-contained curriculum developed using the approved and recommended bibliography by the College Board. (See above) Topics included are in compliance with the College Board AP guidelines and recommendations. All required and recommended reading is linked appropriately within each scheduled lesson in accordance with copyright law.

Course Prerequisites

There are no prerequisites for this course, but strong reading and writing skills are recommended.

Assessments

Assessments are conducted and submitted online in compliance with accreditation standards. Assessments are created using all 6 levels of Webb’s Depth of Knowledge Levels, but primarily focused on strategic and extended thinking and will incorporate various learning styles, so students are challenged to learn at all levels. Assessment questions appear in a variety of formats: true/false, define/identify, multiple choice, map identification and analysis, map creation
activities, multiple answer, journal reflections, individual discussion-based with instructor, Free-
Response Questions (including released AP exam questions), and projects. Assessments are
comprehensive of the lesson content and many are conducted in a timed online environment.

Course Long Plan

Course Outline

Each module of study contains the following:

- College Level Readings
- Supplemental Online Readings
- Map and Data Analysis Sets
- Interactive Mapping Activities
- Reflection Activities (Geo Journal)
- Interactive Online Activities
- Threaded Discussion
- Discussion-based (oral assessment)
- Case Studies
- AP Exam Preparation Test Taking Skill Builders
- Formative and Summative Assessments

---Semester 1--- (16-18 Weeks)

Module 1 – What is Human Geography? Estimated Timeframe: 3 weeks (1.5 for block schedule)

In this module students will study the nature of geography that will allow them to fully
comprehend the new concepts of Human Geography. At the end of the module, the student will
have the tools that will allow them to locate places in a map, to read accurately any type of map,
to analyze human activities in relation to their spatial patterns, their cultural variations, spatial
systems and human-environmental interrelationship.

- The main themes and topics covered in module 1 include activities on:
  - The Earth’s Structure
  - Landforms and Climates
  - Resources
  - Location: Absolute, Relative
  - Place -- What makes a place different from other places? Site, Situation.
  - Human-environment interaction: Environmental Determinism, Possibilism
  - Movement
    - Spatial Distribution: density, dispersion and pattern
    - Spatial Interaction: accessibility and connectivity.
    - Direction and Distance (bias)
  - Regions:
  - Functional, Formal, Perceptual
  - Maps: mapping as a basic tool to record spatial data and to identify and analyze
    regions. They will understand and apply the concepts of:
Essential Questions

- How do maps represent different perspectives of Earth?
- How do people’s actions affect the environment in which they live?
- How is the study of human geography relevant to everyday life and decision making?
- Is geography destiny? How does the environment impact societies?
- Through what lens do geographers view the world, and what skills are needed to develop that lens?
- What is a spatial perspective, and how can it be applied to better understand phenomena and places on Earth?
- What themes do geographers use to explain and analyze phenomena and places on Earth?
- What tools do geographers use in the practice of their craft?
- Why are different places similar?
- Why are some map types more effective than others at representing specific information about Earth?
- Why are some map types more effective than others at representing specific information about Earth?
- Why are some places similar?
- Why is human geography a relevant field of study?

Essential Terms

<table>
<thead>
<tr>
<th>Absolute location</th>
<th>Environmental determinism</th>
<th>Immigrant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardinal directions</td>
<td>Environmental Geography</td>
<td>Longitude</td>
</tr>
<tr>
<td>Cartography</td>
<td>Environmental perspective</td>
<td>Map scale</td>
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<tr>
<td>Cognitive maps</td>
<td>Ethic Groups</td>
<td>Mental maps</td>
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<tr>
<td>Compass rose</td>
<td>Expansion diffusion</td>
<td>Meridians</td>
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<tr>
<td>Conical projection</td>
<td>Functional regions</td>
<td>Migration</td>
</tr>
<tr>
<td>Contagious</td>
<td>Global village</td>
<td>Non-ecumene</td>
</tr>
<tr>
<td>Diffusion</td>
<td>Globalization</td>
<td>Pandemic</td>
</tr>
<tr>
<td>Cultural diffusion</td>
<td>GHS</td>
<td>Parallels</td>
</tr>
<tr>
<td>Cultural landscape</td>
<td>Hearth</td>
<td>Perceptual regions</td>
</tr>
<tr>
<td>Cultural region</td>
<td>Hierarchical</td>
<td>Physical features</td>
</tr>
<tr>
<td>Culture</td>
<td>Economic diffusion</td>
<td>Physical</td>
</tr>
<tr>
<td>Cylindrical projection</td>
<td>Human features</td>
<td>geography</td>
</tr>
<tr>
<td>Elevation</td>
<td>Human geography</td>
<td>Planar/azimuthal</td>
</tr>
<tr>
<td>Emigrant</td>
<td>Immediate</td>
<td>projection</td>
</tr>
<tr>
<td></td>
<td>directions</td>
<td>Possibilism</td>
</tr>
</tbody>
</table>
AP Human Geography Syllabus

- Projection
- Push-pull factors
- Reference maps
- Relation location
- Relative scale
- Relocation
- diffusion

- Rural
- Simplification
- Spatial
- organization
- Spatial perspective
- Stimulus diffusion
- Thematic maps

- Toponyms
- Transnational
- Trilateration
- Urban

- Readings
  - Required reading: Module 1, Florida Virtual School APHG course V10.

- Ancillary Resources
  - Interactive videos timelines: evolution of geography, change over time,
  - Case Study: Ireland Potato Famine
  - Interactive maps: for location, movement, region, place, types of maps.
  - Interactive maps: GIS and GPS Technology
  - Videos: Latitude and Longitude Defined
  - Effects of Global Warming in Alaska
  - British Columbia: Pacific Gateway
  - Accents and Expressions
  - The Nile and Egyptian Architecture
  - The Function of the Aswan Dam
  - Displacement of the Nubians

- Activities: students will have to complete a variety of activities including: diagnostic test, vocabulary activities, Geo-Journal activity (formal regions), map analysis, GPS and Location activity, reflection essays, self check quizzes, geography application assignment, one-on-one discussion based assessment, case study: push and pull factors, FRQ practice activity: “Global Village”, exam prep multiple choice, analyze two maps of student’s community. Identify evidence of cartographer’s choices and evidence of problems with land use, create a Spatial Perception Model

Collaborative Extension Project: Using and Interpreting Maps

- Locate two maps to compare.
- Find maps that fit in one of the following categories: Two maps of a region from different time periods
- Two maps of a region that show the same region using different projections
- Two maps of a region that show different political boundaries
- Two maps of a region that show different themes (ex: population map and migration map)
- Two maps of a region that are designed by different cartographers or nationalities
2. For each map, create a Map Lab Observation Chart in which you record the map title, map scale, map elements, missing elements, map purpose, and any cultural perspectives or biases of the cartographer.

3. Consider the following Map Lab Analysis Questions.
   - What are the advantages and disadvantages of each map?
   - How does studying the maps together increase your knowledge of the region versus using only one map?
   - What conclusions can you make about the region based on your map study?
   - If you were a cartographer commissioned to create a map of this region, what information would you include and what information do you feel is missing from the maps you have viewed and why?

- **Module 2: Population**
  
  Estimated Timeframe: 3 weeks (1.5 weeks for block schedule)

  In this module the students will learn and apply the concept, theories and models of population and population growth.

- **The main themes and topics** covered in module 2 include activities on:
  - Population Definitions: Birth rates, fertility rates, death rates, natural increase, doubling times
  - Population Pyramid: gender, dependency ratio, developed and developing nation comparisons
  - Demographic transition model: Europe and developing nations model.
  - Population Momentum
  - World population distributions and density.
  - Population controls: Malthus, Neo-Malthusians, Cornucopians

**Essential Questions**

- How do geographers measure, track, and predict population changes?
- How have different societies responded to issues regarding population growth?
- Is geography destiny?
- What causes populations to grow, decline, or remain steady?
- What impact do population trends, such as population growth or population distribution, have on regions?
- Why are some areas of the world more desirable places to live than others?
- Why is population growth an issue that matters to societies?

**Essential Terms**

- Aftershocks
- Agricultural density
- Agricultural Revolution
- Baby boom
- Baby bust
- Bulge
- Anti-natalist policies
- Arable land
- Arithmetic density
- Census
- Cohort
- Cornucopians
- Arithmetical rate
- Crude birth rate (CBR)
- Crude death rate (CDR)
- Demographic

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### Demographic Transition Model
- Industrial revolution
- Infant mortality rate (IMR)
- Population distribution
- Population pyramid
- Pro-natalist policies
- Silt
- Natural increase rate (NIR)
- Storm surge
- Total fertility rate (TFR)
- Tsunami
- Zero population growth

### Readings
- Required reading: Module 2, Florida Virtual School APHG course V10.

### Ancillary Resources:
- Interactive: Population pyramids, population maps, world life expectancies
- Interactive Demographic Transition model
- Interactive maps: Analyzing Global Population Density
- Debate: Reliability of Population Theories
- Case Study: Apply Demographic Transition Model to a Nation
- Video: Haiti’s Killer Quake: Why it Happened

### Sample Activities:
Students will have to complete a variety of activities including: vocabulary activities, map analysis activities, population chart and graph analysis, Geo-Journals (demographics: population and place, demographic transition model activity, Neo-Malthusians and Cornucopians), case study: The Red River Floods, self check quizzes, geography application assignment.

### Collaborative Extension Projects

#### Population Statistics

1. Students will complete an uncompleted chart on population data.
2. Explain possible reasons for the differences between the population data for Pakistan (infant mortality, total rate of fertility, life expectancy, and natural increase rate) and the same data for Spain.
3. Based on the numbers given for Pakistan and Spain, predict what the missing data will be for Indonesia, the Philippines, Kazakhstan, the United Kingdom, and Australia. Predictions don’t need to be exact but can be given in ranges *(between one and two, or between 60 and 70).*
4. Choose any two of the nations shown in the table and suggest public policies that would affect the data you predicted, giving reasons for your suggestions.

Create a presentation that explains what you have learned. Remember, your presentation must answer all of the questions from Step 3.
Population Pyramids

Choose one country from each of the three categories. Each category represents a country with a certain type of population growth.

<table>
<thead>
<tr>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>Kenya</td>
<td>Bulgaria</td>
</tr>
<tr>
<td>Finland</td>
<td>Iraq</td>
<td>Hungary</td>
</tr>
<tr>
<td>France</td>
<td>Malawi</td>
<td>Latvia</td>
</tr>
<tr>
<td>Iceland</td>
<td>Samoa</td>
<td>Poland</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Uganda</td>
<td>Russia</td>
</tr>
</tbody>
</table>

Now that you have chosen a country from each category, locate demographic data for each country from The World Factbook and use that data to construct a population pyramid.

After you construct your three population pyramids, respond to the following questions:

1. Compare the data of the three countries. How are they similar? How are they different?
2. In this lesson, you studied countries with various types of population growth. Based on the information in the lesson and what you learned from the assessment, what conclusions can you draw about the characteristics of rapidly growing countries, countries with moderate growth, and shrinking countries?
3. Based on the data in your pyramid, what might you expect the pyramid to look like in five years? In 10 years? In 50 years?
4. Use the population pyramids to make predictions about each country’s future. What problems might each country face if its population trends continue?
5. What are the implications of each type of pyramid structure?
6. Think about the demographics of your town or state. What shape do you think a population pyramid of your town or state would have and why?

You have several choices for presenting your responses to the questions from Step four.

- Slide Presentation
- Essay
- Weblog (blog)
- Podcast
- Video
Module 3: Movement

Estimated Timeframe: 3 weeks (1.5 weeks for block schedule)

In this module the students will learn the basic geographical concepts and perspectives of movement and people of ideas including the demographic transition model, migration patterns and residential mobility. Likewise the student will apply such concepts and theories to migration and immigration to case studies.

The main themes and topics covered in module 3 include activities on:

- Basis of Interaction: Complementarity, Transferability and Intervening Opportunities.
- Measuring interaction concepts: Distance decay, Gravity Concept, Potential Model
- Information and Perception
- Migration: Main migration patterns, Push-pull factors, Types of Migration, Globalization, forced migration.
- Residential Mobility
- Displacement: causes and types

Essential Questions:

- How are intervening opportunities related to push-pull factors?
- How do migrants affect the regions they enter?
- How do migrants affect the regions they leave and the regions they enter?
- How is complementarity related to push-pull factors?
- What are the characteristics of people who migrate?
- What characteristics of a region influence migration?
- What effect might locational pull factors have on migration distance when intervening opportunities are present?
- What factors might force people to migrate?
- What is about a region that influences migration?
- What role do migrants play in cultural diffusion?
- Who migrates?
- Who moves?
- Why do immigrants come to the United States?
- Why do people move?

Essential Terms:

- Acculturation
- Assimilation
- Anglo-Celtic
- Asylum
- Bible Belt
- Distance decay
- Hearth
- Brain drain
- Emigration
- Hierarchical diffusion
- Brain gain
- Environmental
- Host country
- Breadbasket
degradation
- Human trafficking
- Bright flight
Ethnic enclave
- Immigration
- Chain migration
Forced migration
- Internal displacement
- Complementarity
Friction of distance
- Internal migration
- Conflict-induced
Gentrification
- Internally displaced
- displacement
Gravity model of
- persons
- Counter migration
migration
- International migration
Interregional migration | Push-pull factors | Soviet
Intervening opportunity | Quantitative data | Spatial interaction
Intraprovincial migration | Quota | Step migration
Jim Crow Laws | Ravenstein’s “laws” of migration | Suburbs
Melting pot theory | Refugee | Sun Belt
Migration | Relocation diffusion | Taliban
counterstreams | Remittance | Transferability
Migration selectivity | Repatriation | Undocumented alien
Migration streams | Return migration | Voluntary migration
Multicultural | Rust Belt | White flight
Native country | Salad bowl theory | 
Net migration | 

- **Readings**

  - Required reading: Module 3, Florida Virtual School APHG course V10.

- **Ancillary Resources:**
  - Interactive: spatial interaction, migration maps,
  - Interactive Demographic Transition model
  - Interactive maps and activities related to movement
  - Case study: The Lost Boys
  - Videos: Personal Costs
    - Cities and Suburbs
    - Rural-Urban Rush
    - Populations Old and New
    - Immigration: The Key to History
    - Listening to a Blues Selection

**Sample Activities:** students will have to complete a variety of activities including:
- vocabulary activities, Geo-Journal (Ravenstein’s Law, internal and international migration, magnet & sticky states), self check quizzes, geography application assignment, one-on-one discussion based assessment, quiz, exam, FRQ: immigration, research brief on an example of recent forced migration
  - Web 2.0 Tool- Create Global Migration Blog
  - Cause and Effect Chart: Forced Migration
  - Analyze Trends in Modern Migration to the United States including impact on the cultural fabric of the U.S.
  - Create Family Migration Map

**Collaborative Extension Project:**

**Migration**

To get a personal perspective on the importance of internal migration and its effects, you will construct a personal migration map accompanied by a narrative account of one family’s experiences.
1. Gather information through an interview. Prepare a set of questions that will help you trace the family's migration history, including instances of internal migration. Specifically address the types of immigration (internal or international), the characteristics of the immigrants (age, sex, and economic and family status at the time), reasons for the migration, where the migrants settled (Was it an ethnic enclave?), the existence of chain migration, and intervening obstacles in the migration process.

2. Prepare a map that is illustrated and annotated with the names of towns and cities of the migration and include arrows to indicate movements, dates for moves, and basic push-pull factors (such as job opportunities) that prompted migration. Organize the information you will use to present a narrative account of the migrations. Note that your narrative should also address what types of social, cultural, economic, and political effects each step in the migration had.

3. Select a way to present a narrative account of the family's migrations. You have several choices for presenting your narrative.
   1. Slide Presentation
   2. Essay
   3. Weblog (blog)
   4. Podcast
   5. Video

Module 4 – Culture and Language

Estimated Timeframe: Estimated Timeframe: 2 weeks
(1 week for block schedule)

The main themes and topics: in this module students will learn how cultural traits, with emphasis on language, move through time and space, and in turn change and shape population. Students will have an understanding of the concepts of ethnocentrism and racism, and the origin of conflict and separatists groups based on cultural traits, specifically language.

The main themes and topics: in module 4 include activities on:

- Ethnicity, ethnic diversity and the changing immigration streams to multiethnic Anglo America.
- Acculturation and the persistence of ethnic clusters and identities in Anglo America and elsewhere.
- Anglo American hearths and folk buildings traditions
- Nonmaterial folk culture: foods, music, medicines and folklore.
- Folk regions and regionalism
- The nature and patterns of popular culture
- Diffusion and regionalism in popular culture.
- Anglo America and world urban ethnic diversity and patterns of segregation.
- The landscape patterns and residues of ethnic diversity
- Classification, spread and distribution of world languages
- Language standards and variations, from dialects to official tongues.
- Cultural identity and cultural landscape

Essential Questions

- Does folk culture or global culture have a stronger influence?
- How has globalization shaped world cultures?
How is language a product of place and time?
What cultural characteristics make a place or region unique?
What forces encouraged assimilation and acculturation?
What have been the benefits of assimilation and acculturation?
What is culture?
What makes a place or region unique?
What role does language play in culture?
Why are different places similar?

Essential Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acculturation</td>
<td>The process of cultural change</td>
</tr>
<tr>
<td>Anatolian theory</td>
<td>The theory of cultural diffusion</td>
</tr>
<tr>
<td>Artifacts</td>
<td>Material cultural traits</td>
</tr>
<tr>
<td>Assimilate</td>
<td>The process of cultural change</td>
</tr>
<tr>
<td>Assimilation</td>
<td>The process of cultural change</td>
</tr>
<tr>
<td>Autonomy</td>
<td>The process of cultural change</td>
</tr>
<tr>
<td>Censorship</td>
<td>The control or restriction of</td>
</tr>
<tr>
<td>Contagious diffusion</td>
<td>The process of cultural change</td>
</tr>
<tr>
<td>Creole</td>
<td>A local dialect or language</td>
</tr>
<tr>
<td>Cultural complex</td>
<td>A cultural entity or group</td>
</tr>
<tr>
<td>Cultural realm</td>
<td>A cultural entity or group</td>
</tr>
<tr>
<td>Cultural traits</td>
<td>Cultural characteristics</td>
</tr>
<tr>
<td>Cultural system</td>
<td>A cultural component or group</td>
</tr>
<tr>
<td>Daughter language</td>
<td>A language derived from another</td>
</tr>
<tr>
<td>Dialect</td>
<td>A local dialect or language</td>
</tr>
<tr>
<td>Expansion diffusion</td>
<td>The process of cultural change</td>
</tr>
</tbody>
</table>

Readings

- Required reading: Module 4, Florida Virtual School APHG course V10.

Ancillary Resources:

- Interactive: McDonalds in the world, Cultural Traits
- Interactive Cultural Maps
- Interactive World Language Maps
- Case study: Censorship in Iran
- Debate: Should English be the official language of the United States?
- Videos: Non-traditional African Music and Dance

Sample Activities: students will have to complete a variety of activities including:

- vocabulary activities
- create a time capsule for a cultural area
- Geo-Journal activities (government restrictions and Iran, position statement on English as the official language in the U.S.),
- self check quizzes
- geography application assignment
- quiz, exam, one-on-one discussion based assessment
- released FRQ 3, 2010 scoring activity
Collaborative Extension Project

Pop Culture

1. First, you will research TV shows to find out how the portrayal of the average American family has changed over time. You will need to find four clips from television shows: one from the 1950s or 1960s, one from the 1970s, one from the 1980s or 1990s, and one on today. You can select from the list below or use TV shows of your choosing:
   - 1950s and 1960s: I Love Lucy, Father Knows Best, Leave It to Beaver
   - 1970s: The Brady Bunch, All in the Family, Good Times
   - 1980s and 1990s: The Cosby Show, The King of Queens, Everybody Loves Raymond
   - 21st century: Modern Family, Parenthood

Use Web 2.0 to create a presentation that includes the four clips you found and that answer the following questions:

1. How do television shows reflect the way of life for American families? Give concrete examples from each show that demonstrate the popular culture of the time. This can include any of the following examples: forms of entertainment, fashion or what was considered appropriate dress, music, fads, homes, food, education, sports, daily routines, means of communication, and popular sayings or phrases.
2. Based on your analysis of the shows, how has popular culture changed over time? What has remained the same?
3. What role do you think television plays in the transmission of popular culture? How have TV shows affected pop culture in the United States and elsewhere?
4. How do television shows reflect the influence of globalization? Provide examples from the clips that show the influence of cultural exchange of different cultures on U.S. society or the impact of U.S. society on other cultures?

Module 5 – Religion  Estimated Timeframe: 3 weeks (1.5 weeks for block schedule)

In this module students will apply the basic geographical concepts of location, movement and culture to the study of the major religions in the world. In addition they will learn the implications of religious conflict in the global scene.

The main themes and topics: in module 5 include activities on:

- The cultural significance and role of religion.
- Classification and distributions of world religions.
- Origins, nature and diffusion of Judaism, Christianity and Islam, Buddhism and Hinduism
- Cultural significance and placement of minor religions
- Religious conflicts: causes and consequences.

Essential Questions

- How do the principles of a religion influence environmental interaction?
- How does the environment influence the practice of religion?
What impact does geography have on religious conflict?
What is the difference between universalizing and ethnic religions?
What is the relationship between religion and place?
Why do some religions merge with others and other religions fight one another?
Why do some religions spread throughout the world while others remain local?
Why does a geographer look at religion when considering human-environment interaction?

Essential Terms

Abrahamic
Animism
Ascent
Audience
Australasia
Ayatollah
Baha’i
Bibliography
Brahman
Branch
Caliph
Caste
Ch’i
Cosmogony
Critical analysis
Denomination
Dharma
Diffused
Eastern Orthodox
Ethnic group
Ethnic religion
Ethno-religious group
Feng shui
Four Noble Truths
Fundamentalism

Gurdwara
Guru
Hajj
Henotheistic
Hierarchical diffusion
Hijab
Imam
Interfaith
Intrafaith
Jewish Diaspora
Karma
K-W-L chart
Laicite
Megalurches
Missionaries
Monotheistic
Monotheistic religion
Mosque
Muslim
Nation
Old City
Papal
Pilgrims
Point of origin
Prophet

Proselytizing
Protestant Church
Qur’an
Region
Religion
Religious landscape
Relocation diffusion
Relocation religion
Roman Catholic
Sect
Shaman
Shamanism
Sharia law
Shintoism
Shiva
Sikhism
State
Syncretic religions
Taoism
Temple
Theocracy
Universalizing religion
Vishnu
Yin and yang

Readings

Required reading: Module 5, Florida Virtual School APHG course V10.

Ancillary Resources:

- Interactive: McDonalds in the world, Cultural Traits
- Interactive Religion location and diffusion maps and time lines
- Interactive Geographer vies of religion: Religion and the Environment
- Case study: Santeira, Aminimistic religions
- Videos: A Brief History of the Conflict (Israel)
  - Catholicism and Voodoo: A Spiritual Profile
  - Hinduism
  - The Caste System
World of Faith: Sikhism: The Golden Temple (The 5 Ks Found)
Arlington National Cemetery
Arab & Jew: Return to the Promised Land

Sample Activities: students will have to complete a variety of activities including:
vocabulary activities, review of a position paper: *Is Islam a peaceful religion or a radical religion?*, Geo-Journal activities (Christianity, Islam, Buddhism, Hinduism, Sikhism, Baha’i, animism, and syncretic religions), self check quizzes, one-on-one discussion based assessment, geography application assignment, position paper: *Which religion has had the most global impact?*, 2002 released FRQ questions, exam

Position Paper Project

Read the questions below and choose one question to answer in your position paper.

- How significant is the diffusion of religion in shaping place?
- Does every religion have the potential to become a global religion? Or are some religions destined to remain local?
- Which influence is stronger: religion’s influence on the environment or the environment’s influence on religion?
- How significant is regional geography as a cause of religious conflict?
- Choose two world religions. Imagine that 1 million adherents of one religion and 1 million adherents of the other religion moved within the borders of the same country. How high would the level of religious conflict be in the country given your knowledge of the religions’ past interactions and understanding of the religions’ belief systems?

Include:

- a title page
- a two- to three-page paper
- a works cited/bibliography page

Module 6 –Ethnicity and Gender

Estimated Timeframe: 2 weeks (1 week for block schedule)

In this module the student will learn the differences and relationships between race, ethnicity and nationalities as well as the relationship between gender, ethnicity and culture. Likewise they will be exposed and analyze the major global ethnic conflicts.

- The main themes and topics in module 6 include activities on:
  - Ethnicity and race
  - Ethnic clusters, Ethnic diversity and patterns of segregation.
  - Gender and culture: controls and identity
  - Gender and the economy: gender gaps and inequalities
  - Ethnic cluster is North America and Charter groups
  - Ethnic conflicts

Essential Questions
• Are there geographic similarities among the regions where ethnic conflicts occur?
• How do ethnic groups impact the cultural landscape?
• How do gender roles vary according to culture?
• How do geography and migration affect the formation of individual and cultural identity?
• How does geography affect the opportunities and life course of different genders?
• What are the causes and effects of ethnic conflict?
• What factors impact the migration and distribution of ethnic groups?
• What role does geography play in the formation of individual and cultural identity?
• Why do some ethnicities become nationalities?

Essential Terms

<table>
<thead>
<tr>
<th>Acculturation</th>
<th>Ethnicity</th>
<th>Matrilineal</th>
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<tbody>
<tr>
<td>African American</td>
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<td>Apartheid</td>
<td>External controls</td>
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<td>Assimilation</td>
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<td>Chain migration</td>
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<td>Maternal Mortality Rate</td>
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<td>(MMR)</td>
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<td>Ethnic group</td>
<td>Matriarchal societies</td>
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</table>

• Readings

  • Required reading: Module 6, Florida Virtual School APHG course V10.

• Ancillary Resources:

  • Interactive: race and ethnicity
  • Interactive genocide and separatism
  • Interactive Geographer: Impact of ethnicity on space
  • Interactive: Ethnic migration
  • Interactive maps: ethnic conflicts
  • Case study: Apartheid
  • Case Study: Women Issues and HIV
  • Videos: Exploration and Colonization
    Civil War in Yugoslavia
Rich and Poor: Exploring the Differences in North and South Korea
Al’Queda After 9/11: Jema’ah Islamiyyah
An Unfinished Nation: The Collapse of Peace (A New World Order)
The House of Representatives

Sample Activities: students will have to complete a variety of activities including: vocabulary activities, Geo-Journal activities (race and ethnicity, ), self check quizzes, geography application assignment, quiz, FRQ Human Geography, FRQ gender and culture, one-on-one discussion based assessment, create map of ethnicity and nationality map of your community, exam

Collaborative Extension Project

1. Choose three people from your community to participate in the interview. Your participants may be close friends, family members, or neighbors. They should be people who know you and are comfortable being interviewed by you.
2. Review the following questions that you will ask your interviewees.
   1. Where were you born?
   2. How long have you lived in your current town? Where else have you lived?
   3. What is your nationality (American, Japanese)?
   4. How would you describe or identify your ethnicity? What are some events and/or traditions that you participate in that highlight your ethnic heritage?
   5. Which cultural affiliation do you consider most important to you personally: ethnicity or nationality? Why do you consider it most important?
3. Prepare at least three follow-up questions for your interviewees.
4. Schedule a time to meet with each of your interviewees.
5. Ask the interview questions listed above as well as any that you have prepared. You may need to be flexible and reword the questions or ask the interviewees to give more specific examples to explain their answers. Remember that all questions should be respectful of the individual. Record their answers in your Geo Journal.
6. Create a chart to record your findings (it should look similar to the chart below :)

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Ethnic Group</th>
<th>Regional Group</th>
<th>Reason for Identification</th>
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<td>Name #2</td>
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<tr>
<td>Name #3</td>
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</tbody>
</table>

7. Reflect upon the answers of the interviewees and look for common threads or themes.
   - Which factors do you think have the greatest influence on the formation of one’s identity?
   - Summarize the conclusions that you have drawn based on this sampling of interviewees.
   - Give specific examples to support your conclusions.
   - Write your conclusions in a two-paragraph response.

**Segment I Exam**
Module 7 Political Geography  

In this module the student will learn that political patterns reflect ideas about how earth’s surface should be organized and affect a wide range of activities and understanding.

- **The main themes and topics** in module 7 include activities on:
  - National political units: geographic characteristics and boundary concerns
  - Nationalism and projection of power: Centripetal and centrifugal forces
  - Local and regional political forms: representation and fragmentation
    - Natural/physical boundaries
    - Cultural boundaries
    - Geometric boundaries
    - Drawing boundaries
    - Law of Sea
  - International political system: the U.N, maritime law and regional alliances.
  - Electoral Geography: Gerrymandering, Internal boundaries (gender), Census and reliability

**Essential Questions**

- How are societies organized into political units?
- How do demography and political geography interrelate?
- How do forces work to unify or divide a state’s regions and people?
- How do physical features affect the political and economic activities within a state?
- How do political alliances affect governments and people on regional and global levels?
- How does geography affect political power and economic development?
- How does geography affect political power?
- How does governmental structure affect a country’s distribution of power?
- How has conflict affected political boundaries?
- How has nationalism shaped political boundaries, alliances, and conflicts?
- How have imperialism and colonialism impacted the development of the modern state?
- How have imperialism and colonialism shaped political boundaries, alliances, and conflicts?
- How have political conflicts shaped the modern world?
- In what ways do centripetal forces and centrifugal forces affect the viability of a state?
- What are the geographic and political impacts of irredentism, devolution, and dissolution on a region?
- What are the similarities and differences between terrorist organizations and terrorist individuals?
- What forces influence the government and relative power of a state?
- What influence does electoral geography have on human activities?
- What is a superpower and how does it impact an international alliance?
- What is the relationship between geography and terrorism?
- What is the relationship between nationalism and geography?
- What spatial patterns can be found in the distribution of power?
- Why do geographers study political geography?
- Why do people divide land into distinct political units?
- Why do societies organize into political units?
- Why do terrorist organizations exist?
- Why is there a need for cooperation among states?

## Essential Terms

<table>
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<tr>
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<th>Dissolution</th>
<th>Neocolonialism</th>
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<td>State-sponsored terrorism</td>
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Strategic Defense Initiative  State  Unitary
Subcontinent  Stateless nation  United Nations (UN)
Subnationalism  Synthesize  Warsaw Pact
Subsequent boundary  Territorial morphology  Wasted vote
Superimposed boundary  Terrorism  gerrymandering
Superpower  The Maastricht Treaty  Transnational
Supranationalism  

- **Readings**
  - Required reading: Module 8, Florida Virtual School APHG course V10.

- **Ancillary Resources**:
  - Interactive: Political Maps
  - Interactive maps: types of boundaries
  - Case Studies: Boundary Conflicts Korea,
  - Case study: Irredentism and Devolution: Kashmir and the United Kingdom

**Sample Activities**: students will have to complete a variety of activities including: diagnostic test & reflection, Geo-Journal activities (political cartoon analysis: imperialism, link between geography and terrorism, rationale to join or not join UNASUR), self check quizzes, geography application assignment, quiz, state creation profile with mapping and demographics, FRQ: boundaries, FRQ: political systems, redistricting writing assignment, exam

**Collaborative Extension Project**

Centripetal and Centrifugal Forces

- Choose three questions from the interactive to focus on in this assignment.
- Imagine that you have to explain to a classmate how to arrive at the correct answer for each question you chose. How would you describe your reasoning to him or her? For each of the three questions you chose, answer the questions below. Write your answers to the questions as if you are addressing a classmate.
  - What is the question asking you to identify?
  - What is the correct response? Why is this choice the best answer to the question?
  - Read each distractor. What makes each distractor incorrect?
  - How could you rewrite each distractor to make it a correct choice?
Module 8 Agriculture and Land Use 4 weeks (2 weeks for block schedule)

In this module the student will learn the impact of agriculture in the geographical landscape and human livelihood. They will understand the different theories and models used to analyze the use and value of land.

The main themes and topics in Module 8 include activities on:

- Classification of productive activities and economies.
- Types and prospects of subsistence agriculture.
- Von Thunen's Model of agricultural land use
- Commercial agriculture: controls and specialization.
- Non farming primary activities: fishing, forestry, trapping, mining.
- Trade in primary products.
- Green Revolution

Essential Questions

- How are regions interdependent for food production?
- How can countries balance the need to increase food supply and the need to conserve resources?
- How does a state's economic level of development determine global agricultural regions?
- How has the way societies use land to provide food and resources changed over time?
- How have diffusion and globalization changed global food supply?
- How is the world's food supply distributed and why?
- Is geography destiny- how does the type of agriculture practiced in a region affect the living conditions and use of space within the region?
- What factors determine how humans organize agricultural production?
- What factors determine how humans organize agricultural spaces?
- What factors impact global food production and distribution? (Cultural, economic, and social factors)
- What geographic, cultural, or economic factors impact agricultural land use?
- What are the impacts of biotechnology on agriculture and society?
- What impact has large scale agriculture had on the environment?
- Where does our food supply come from? (Agricultural regions)
- Why did societies develop agriculture and domestic animals?

Essential Terms

- Agribusiness
- Agricultural hearth
- Agricultural region
- Agriculture
- Animal domestication
- Biodiversity
- Biotechnology
- Cash crop
- Climatic region
- Columbian Exchange
- Commercial agriculture
- Commercial gardening
- Corporate farm
- Crop rotation
- Dairy farming
- Deforestation
- Desertification
- Domesticate
- Double cropping
- Extensive agriculture
- Factory farm
- Factory farming
- Food security
- Fossil fuels
- Genetic modification
- Genetically Modified Organisms (GMOs)
- Grain farming
- Green Revolution

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Hectare  Monoculture  Seed planting
Herding  Neolithic Agricultural  Selective breeding
Horticulture  Revolution  Shifting cultivation
Hunter-gatherer  Organic farming  Slash-and-burn agriculture
Hybrid seeds  Pastoral nomadism  Subsistence agriculture
Intensive agriculture  Plantation farming  Sustainable agriculture
Intertillage  Primary economic activity  Swidden
Johann Heinrich von Thünen  Quaternary economic activity  Tertiary economic activity
Köppen climate  Quinary economic activity  Third Agricultural Revolution
classification system  Rain shadow  Transhumance
Livestock ranching  Root planting  Vegetative planting
Mid-latitudes  Salinization  Von Thünen Model of Agricultural Land Use
Mediterranean agriculture  Second Agricultural Revolution
Mixing  Revolution
Mixed crop and livestock farming  Secondary economic activity

- **Readings**
  - Required reading: Module 8, Florida Virtual School APHG course V10.

- **Ancillary Resources:**
  - Interactivity: Application Von Thunen Model
  - Interactive Map: Compare agricultural land use across regions
  - Case Studies: Agriculture diffusion from various Agricultural hearths
  - Videos: The Hadza People in Tanzania
    - The Contrast between the Green Revolution and Subsistence Farming in India
    - The Future of the World Hunger With and Without Genetic Modification
    - The Need for Labor Agriculture and the Environment Population and World Resources

**Sample Activities:** students will have to complete a variety of activities including: Geo-Journal (food choices and the environment), self check quizzes, quiz, geography application assignment, FRQ: Agriculture, one-on-one discussion based assessment, exam

- Evaluate various examples of human modifications of land to increase food supply
- Apply Von Thunen’s Model to student’s community, a domestic and international region
- Debate the impact of the Green Revolution on agriculture industry
- Spatial Relationships: Global, Regional, Local Analysis Agriculture Land Use

**Collaborative Extension Project**

Choose one of the following biotechnology issues and take a stand either pro or con. Each issue has some suggestions to help you think about the issue. Present your position in a position paper.
1. Read each prompt below. Choose one prompt to respond to in a writing assignment.

Prompt #1
Nnimmo Bassey, a Nigerian environmental activist, once said, “Biotech crops are not a solution to solve hunger in Africa or elsewhere.” Think about Bassey’s stance. Do you agree or disagree with his position? Why?

Prompt #2
In 2011, the president of the National Council of Farmer Cooperatives testified that “Biotechnology is the key to sustainably feeding a growing world population.” Think about the president’s stance. Do you agree or disagree with his position? Why?

Prompt #3
In 2007, former U.S. President Jimmy Carter said, "We must combat the false propaganda of some European extremists who condemn the use of genetically modified seeds. Their misleading statements have been extremely damaging to Africa, where some misguided leaders have rejected such imports." Think about Carter’s stance. Should African leaders ignore arguments condemning the use of genetically modified seeds? Why?

2. After choosing your prompt, create a list of five to six points that explain why you agree or disagree with the quote. While you should use information you learned in this lesson to develop your argument, you may want to consult outside resources to learn more about the pros and cons of biotechnology and GMOs to help support your argument.

3. Use your list of points to write a paragraph that clearly describes your stance on the issue.

Module 9-Agriculture and Rural Land Use 4 weeks (2 weeks for block schedule)

The students will understand that the means of production determine the level of development of a country. The student will also understand the process of Globalization and how does it affect their lives.

The main themes and topics in Module 9 include activities on:

- Principles and considerations for manufacturing locational decisions and analysis of industrial location theories.
- Other non-theoretical considerations including transnational ownership affect, distort, or reinforce classical locational controls.
- Older world patterns of manufacturing regions and the effect of High Tech locational industries in their locational displacement.
- Identifying characteristics of tertiary, quaternary and quinary service activities, and their impact in the world economic patterns and international trade.
- Definitions and explanations of development and underdevelopment.
- Economic measures and models of development: income, energy, farming and foods, and stages of growth. (Rostow's Model)
- Non-economic measures of development: education, services, health, and cultural satisfaction, and their relationship to economic indexes.
Women's roles and rewards: determinants of patterns of genders relationships.

Essential Questions

- How are businesses relying on the field of geography, specifically GIS to determine location?
- How are resources and wealth used and distributed around the world?
- How are the activities in the different economic sectors used to satisfy people's needs?
- How do economies balance development and environmental protection?
- How do we define and measure economic development?
- How does the nature of the product/service determine the location?
- How has globalization changed world economies?
- How have societies maximized the use of land and natural resources to support economic development?
- How have societies maximized the use of land to support economic development?
- How is location important in the manufacturing process?
- To what extent do women contribute to economic development?
- What are the costs of industrialization?
- What are the limitations of development models?
- What global initiatives have been created to increase the economic power of women?
- What is sustainable development?
- What patterns of development are seen in different regions of the world?
- What role has geography played in economic development?
- Why are there disparities in economic development around the world?

Essential Terms

<table>
<thead>
<tr>
<th>Agglomerate</th>
<th>Commodity chain</th>
<th>Developed country</th>
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<td>The Group of Twenty</td>
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### AP Human Geography Syllabus

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<th>Technopole</th>
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<tr>
<td>Locational interdependence</td>
<td>Per capita</td>
<td>Per capita income</td>
<td>Total costs</td>
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<td>Location theory</td>
<td>Periphery</td>
<td>Pink ghetto</td>
<td>Toxic waste</td>
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<td>Maquiladoras</td>
<td>Poverty line</td>
<td>Privatization</td>
<td>Transnational</td>
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<td>Metallurgy</td>
<td>Microloans</td>
<td>Multinational</td>
<td>NAFTA</td>
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<td>Multinational corporation</td>
<td>Retail location theory</td>
<td>NAFTA</td>
<td>Rostow’s model of economic growth</td>
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<td>NAFTA</td>
<td>Walt Whitman Rostow</td>
<td>World Trade Organization (WTO)</td>
<td>Immanuel Wallerstein</td>
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<td>Narco-trafficking</td>
<td>Rostow’s</td>
<td>Modernization model</td>
<td>Alfred Weber</td>
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<td>Semi-periphery</td>
<td>Service location theory</td>
<td>Weight-gaining industry</td>
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<td>National Sustainable Development Strategy (NSDS)</td>
<td>Spatially fixed costs</td>
<td>Structual theorists</td>
<td>World Bank (WB)</td>
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<td>Natural resources</td>
<td>Net rent</td>
<td>Subsidiary business</td>
<td>World-systems theory</td>
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<td>Offshoring</td>
<td>Sustainable</td>
<td>development</td>
<td>World Trade</td>
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<td>Opportunity cost</td>
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<td>Organization (WTO)</td>
</tr>
</tbody>
</table>

### Readings

- Required reading: Module 9, Florida Virtual School APHG course V10.

### Ancillary Resources:

- Interactive Map: Spatial Awareness: Analysis of World Economic Development
- Interactive maps: Rostow’s Model of Economic Growth on various countries
- Interactive map: Analyze male and female labor force in the United States
- Case Studies: Apply Hotelling Location Theory on Disney World
- Case Study: Consequences of Economic Growth: BP Oil Spill
- Videos: World Poverty
  - Volvo in Brazil
  - Moving American Jobs to China
  - International Organizations
  - The World Bank and the International Monetary Fund
  - Ecological Globalization
  - Disaster in The Gulf
  - A Sea Disappears
  - Planet Earth: The Future; Living Together Segment Sustainable Development
  - Planet Earth: The Future; Living Together Segment Balancing Conservation and Industrial Growth

### Sample Activities:

- students will have to complete a variety of activities including: quiz, Geo-Journal (weight-gaining industry, agglomeration, deglomeration), self check quizzes, geography application assignment, FRQ: Locational Theory, Weber’s least-cost theory factory location assignment, FRQ: Globalization, level of development graph
Collaborative Extension Project

1. Choose one of the following six countries:
   a. Albania
   b. Bolivia
   c. Chad
   d. Federated States of Micronesia
   e. Mozambique
   f. Nepal

2. Research the country you chose by visiting the CIA World Factbook or the World Data Bank.

3. Gather information about the country’s development indicators, such as HDI and literacy rate, access to health care, environmental health, and overall quality of life for the citizens.

4. Brainstorm a plan for development for the country you chose that takes the following questions into account:
   a. What is the overall quality of life like in the country? What indicators helped you arrive at this conclusion?
   b. What are the country’s most important natural resources? What is the skill set of the population?
   c. On what types of industries should the country focus? Why?
   d. What strategies can the country use to promote investment in its industries?
   e. What steps can the country’s leaders take to promote sustainable development?

5. After brainstorming your plan for development, write a letter to the country’s leaders in which you convince them of your development plan. Be sure to emphasize why the leaders should target specific industries, how the population will develop as a result, and how they will go about protecting the environment in the process.

- Analyze how the U.S. has shifted from a secondary to a tertiary or quaternary
- Use of GIS to determine appropriate business location
- Identify and discuss locational theories using maps
- Apply Human Development Index to determine states of economic development of various countries
- Debate the impact of global economic initiatives and agencies on development?

Module 10-Cities and Urban Land Use (and final exam prep) 5 weeks (2.5 weeks for block schedule)

In this module the student will also understand the theories of urban development and what is the relationship of city-structure to geography and vice-versa.

The main themes and topics in module 10 include activities on:

- The nature of cities in an urbanizing world: origins, definitions, locations and theories
- The economic base and systems of cities: functions, hierarchies and networks.
Inside the city: land uses, social areas and patterns of change.
Models of Internal City Structure
World urban diversity: cities in Anglo America, Europe and developing nations.

**Essential Questions**

- How are cities organized?
- How are cities unique reflections of place and location?
- How does life course vary according to where people live in a city?
- How is space organized in urban areas to meet multiple needs and uses?
- Is geography destiny (does birthplace dictate your destiny)?
- What are some commonalities between cities?
- What are the characteristics of well-designed urban places
- What are the political advantages and challenges in urban areas?
- What are the political, social, and economic advantages and challenges in urban areas?
- What challenges do urban planners face?
- What is the relationship between urban and non-urban areas?
- What patterns have geographers found in city structures?
- Where are cities located and why?
- Why is the world becoming more urbanized and how has this affected place?

**Readings**

- Required reading: Module 10, Florida Virtual School APHG course V10.

**Ancillary Resources:**

- Interactive maps: Spatial Organization of Urban Centers
- Case Study: Understand, recognize and apply the Burgess Concentric Zone Model: Detroit Vs Los Angeles
- Case Study: Louisiana Levee System
- Case Study: Modern Urban Social Patterns: Edge City, Primate City and Mega City
- Videos: Boomtown Lagos
  Brazil Revealed: Short Stories

**Sample Activities:** students will have to complete a variety of activities including: Geo-Journal Activity (city mapping), self check quizzes, geography application assignment, exam, weighing sides: gentrification speech activity, quiz, case study: urbanization

- Analyze land value in determining Central Business District
- Apply Central Place Theory to Urban Centers
- Debate: Risks Benefits of Gentrification

**Collaboration Extension Project**

Now it is your turn to design your own city. Make a short list of important features to include in your city and prioritize it according to its level of importance. After you have an idea of the features to include, create a map of your city using the interactive below. The interactive includes a map of a fictional region that shows only physical features. Use the drawing tool to
create the boundaries of your city. On the side of the map, there is a key that includes icons for residential and non-residential buildings, roads, and parks. Click on the icon from the key to place it on the map. Use the text tool to label the features you place on the map. For example, if you add a non-residential building and would like it to be a school, then you can use the text tool to label it as such. Be sure to label the central business district, non-basic sectors, and basic sectors on the map. When you are finished making your city, save and print a copy of your map and place it in your Geo Journal. Then, write a one to two paragraphs explaining why you placed the features where you did.

**Segment II Exam**
(Complete AP Exam experience, 75 multiple-choice questions & 3 free-response questions)
ADVANCED PLACEMENT®
MACROECONOMICS
AP Macroeconomics

AP Macroeconomics is a challenging course that is meant to be the equivalent of a freshman college course and can earn students college credit. It is a semester survey course of macroeconomics designed to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. This course places particular emphasis on the study of national income and price-level determination, and also familiarizes students with economic performance measures, the financial sector, stabilization policies, economic growth and international economics. Solid math and writing skills, along with a willingness to devote considerable time to homework and study, are necessary to succeed. Emphasis is placed on critical and evaluative thinking skills.

Student assessment occurs at a variety of levels throughout the course. Students are assessed via oral examination and other synchronous sessions. Actual course assessment types include student assessed work, auto-graded, partially auto-graded, and totally instructor graded assignments.

This course is designed to be highly teacher facilitated. Instructors give a great deal of specific and timely feedback. Students have opportunities for oral examinations, discussions, and whiteboard sessions. Teachers conduct synchronous elluminate sessions, which require critical thinking and analysis.

Course Objectives:
Students will
• master a broad body of knowledge related to facts, concepts, and theories pertaining to aggregate economics activity;
• understand and explain the critical evaluation of determinants of economic progress and economic decisions made by policymakers;
• explain the utilization of resources within and across countries;
• effectively use analytical skills of evaluation, cause and effect, and compare and contrast;
• work effectively to produce graphic products and solve problems;
• prepare for and successfully pass the Advanced Placement Exam.

Primary Text

Class Synchronous Sessions
Students will participate in instructor led discussions of important concepts in each module using a real-time virtual classroom. Students will have the opportunity to practice free response questions, graphing, and multiple choice questions in the AP format as well as interact with other students while discussing the major content areas.

**Additional Resources**

- My EconLab (Bade & Parkin On-line)
  - Practice tests
  - Practice exercises
  - Graphing problems
  - Glossary flashcards
  - Economics in the News
  - The New York Times eThemes
- Newspaper Articles from local and national newspapers
- National Statistics Websites

---**Semester 1---**

**Module 1: Basic Economic Concepts**

**Suggested Pace:** 2 weeks

**Chapters Included in Module 1**

_Bade and Parkin, Chapters 1, 3, and 4_

**Content**

- The functions of any economic system: what, how, for whom to produce
  - Describe and analyze the "economic way of thinking"
- Scarcity: the nature of economic systems
  - Identify the conditions that give rise to the economic problem of scarcity
  - Compare and contrast different types of economic systems
  - Developed vs. undeveloped countries
  - Apply the concept of scarcity to different economic situations
- Opportunity costs
  - Define it and explain how it affects the macroeconomy
  - Identify opportunity costs of various situations
- Production possibilities
  - Graph and interpret data
  - Apply the concept of opportunity costs to a production possibilities curve
Different shapes of production possibilities curves and their meaning

- Absolute and comparative advantage
  - Define and give examples of comparative and absolute advantage

- Demand, supply, price determination
- Describe the behavior of buyers and sellers in a competitive marketplace
  - List and explain the determinants of supply and demand
  - Construct supply and demand graphs
  - Distinguish between demand and quantity demanded and supply and quantity supplied and illustrate each graphically
  - Evaluate the laws of supply and demand
  - Define and distinguish between income and substitution effects
  - Define, analyze the advantages and disadvantages of, and graph price ceilings and floors
  - Define and graph surpluses and shortages
  - Define and graph market equilibrium on schedules and graphs

Major Assessments
Comprehensive Module Exam
Free Response Questions
  - Opportunity Costs/Absolute and Comparative Advantage/ Behaviors of Buyers and Sellers in a Competitive Market

Functions of Economic Systems Assessment
Scarcity Assessment
Opportunity Cost Assessment
Production Possibilities Graphing Practice and Assessment
Demand, Supply and Price Determination Graphing Practice and Assessment
Behaviors of Buyers and Sellers in a Competitive Market Graphing Practice and Assessment

Module 2: Measurement of Economic Performance

Suggested Pace: 2 weeks

Chapters Included in Module 2
Bade and Parkin, Chapters 2, 20, 21, 22 and 28

Content
- Gross national product and gross domestic product
  - What is and is not included
  - Calculate using income and expenditures approach
Nominal versus real
The GDP gap
Other measures of national income (NNP, NI, PI, DI)
Circular flow
Inflation and price indices
  Define and identify types of inflation
  Analyze types of price indices: CPI, PPI, GDP Deflator
  Nominal versus real
  Effects of inflation
Unemployment
  Define and identify types of unemployment
  Define natural and identify natural rate of unemployment
  Determine how unemployment is calculated
The business cycle

Major Assessments
Comprehensive Module Exam
Free Response Questions
  Circular Flow/Unemployment/ GDP
GNP and GDP Assessment
Other measures of national income (NNP, NI, PI, DI), Newspaper based Assessment
Inflation and price indices Assessment
Unemployment; Oral Examination
The Business Cycle Interactive Assessment

Module 3: Open Economy: International Trade and Finance

Suggested Pace: 2 weeks

Chapters Included in Module 3
Bade and Parkin, Chapters 34 and 35

Content
  Define and explain the balance of payments
  Foreign exchange markets
    Explain how exchange rates are determined
    Analyze appreciation or depreciation
    Analyze and create foreign exchange graphs
  Links to financial goods and markets
  Net exports and capital flow
    Interest rates and its impact on financial capital
    What are the arguments for and against free trade
    Trade barriers and their impact on trade
Major Assessments
Comprehensive Module Exam
Module Oral Examination
Free Response Questions
  Foreign Exchange Markets/ Net Exports and Capital Flow
Balance of payments Assessment
Foreign Exchange Markets Graphing Practice and Assessment
Links to Financial Goods and Markets Assessment

Module 4: National Income, Price Determination, and Economic Growth

Suggested Pace: 4 weeks

Chapters Included in Module 4
Bade and Parkin, Chapters 24, 25, and 29

Content
• Aggregate supply
  o List and explain the determinants of aggregate supply
  o Sticky versus flexible wages and prices
  o Short run and long run aggregate supply
  o Keynesian vs. Classical view of aggregate supply
• Aggregate demand
  o List and explain the determinants of aggregate demand
  o Define and distinguish between the interest rate, net export, and wealth effects
  o Crowding out effects
• Multipliers
  o Government Multiplier
  o Investment Multiplier
  o Tax Multiplier
• Equilibrium
  o Short and long run analyses
  o Actual versus full-employment output
  o Create and analyze aggregate demand and aggregate supply graphs
• Economic Growth and Productivity
  o Growth policy
  o Investment in human capital
  o Investment in physical capital
  o Research and development, and technological progress
• Classical Economics and Say’s Law
• Aggregate Expenditures and Keynesian Economic – discussion board
AP Macroeconomics Syllabus

- Analyze and explain the consumption and investment functions
- Marginal and average propensities

Major Assessments
Comprehensive Module Exam
Free Response Questions
  - AD and AS/Economic Growth and Productivity
Module Oral Examination
Aggregate supply Graphing Practice and Assessment
Aggregate demand Graphing Practice and Assessment
Multipliers Graphing Practice and Assessment
Economic Growth and Productivity Graphing Practice and Assessment
Classical Economics and Say’s Law Assessment
Aggregate Expenditures and Keynesian Economic

Module 5: Financial Sector

Suggested Pace: 1 week

Chapters Included in Module 5
Bade and Parkin, Chapters 24, 26, 27, and 28

Content
- Money and banking
  - Identify the functions and characteristics of money
  - Defining financial assets: money stocks and bonds
  - Time value of money: present and future value
  - Measures of money
  - Real vs. nominal interest rates
- The Loanable Funds Market
  - Money market and demand for money
- Describe and analyze the creation of money
  - Money multiplier

Major Assessments
Comprehensive Module Exam
Free Response Questions
  - Loanable Funds/Creation of Money
Module Oral Examination
Synchronous Discussion Session
Money, banking, and financial markets Graphing Practice and Assessment
Module 6: Inflation, Unemployment, and the Stabilization Policies

Suggested Pace: 5 weeks

Chapters Included in Module 6
Bade and Parkin, Chapters 31, 32, and 33

Content

- Tools of fiscal policy
  - Balanced-budget multiplier
  - Deficit versus debt and the impact on the economy
  - Discretionary fiscal policy
  - Automatic stabilizers
  - Shortcomings of fiscal policy
  - The effect of fiscal policy on interest rates
- The Federal Reserve System and monetary policy
  - Origins and organizational structure
  - Powers and tools of the Fed
  - Shortcomings of monetary policy
- Supply Side Policies
- Monetarists and the economy
- Rational Expectations Theory
- The Phillips Curve
  - Inflation versus unemployment in the short and long run

Major Assessments
Comprehensive Module Exam
Free response Questions
  - Fiscal and Monetary Policy
Oral Examination
Tools of Fiscal Policy Graphing Practice and Assessment
Federal Reserve and Monetary Policy Graphing Practice and Assessment
Supply Side Policies Assessment
Monetarists and the economy Assessment
Rational Expectations Theory Assessment
The Phillips Curve Graphing Practice and Assessment
Synchronous Discussion Session
Module 7: Final Review

Suggested Pace: 1 week

Content
- Free Response Questions
- Essential graphs review
- On-line tutorial using 1995 and 2000 released exams **

**This course is accompanied by an online tutorial and review that uses released AP Exams. Students are given systematic and timed practice for all portions of the exam. Students receive specific feedback on progress and mastery levels as they complete the practice exams.

Major Assessment
Comprehensive Final Exam and Essay
ADVANCED PLACEMENT®
MICROECONOMICS
Advanced Placement Microeconomics

AP Microeconomics is a challenging course that is meant to be the equivalent of a freshman college course and can earn students college credit. It is a semester survey of microeconomics designed to give students a thorough understanding of the principles of economics that apply to the function of individual decision-makers, both consumers and producers, within larger economic systems. It places primary emphasis on the nature and function of product markets. It also examines factor markets and the role of government in promoting greater efficiency and equity in the economy. Solid math and writing skills, along with a willingness to devote considerable time to homework and study, are necessary to succeed. Emphasis is placed on critical and evaluative thinking skills.

Student assessment occurs at a variety of levels throughout the course. Students are assessed via oral examination and other synchronous sessions. Actual course assessment types include student assessed work, auto-graded, partially auto-graded, and totally instructor graded assignments.

This course is designed to be highly teacher facilitated. Instructors give a great deal of specific and timely feedback. Students have opportunities for graphing practice, oral examinations, discussions, and whiteboard sessions. Teachers conduct synchronous Elluminate sessions, which require critical thinking and analysis.

Course Objectives:
Students will

♦ master a broad body of knowledge related to facts, concepts, and theories pertaining to households, firms, and the public sector
♦ develop critical-thinking skills through the understanding, application, and analysis of fundamental economic concepts
♦ apply economic logic to a wide variety of real-world and hypothetical situations
♦ prepare for and successfully pass the Advanced Placement Exam

Primary Text

Class Discussion Board
Students will participate in instructor led discussions of important concepts in each module using a real-time virtual classroom. Students will have the opportunity to practice free response questions and multiple choice questions in the AP format as well as interact with other students while discussing the major content areas.
Additional Resources

- My EconLab (Bade & Parkin On-line)
  - Practice tests
  - Practice exercises
  - Graphing problems
  - Glossary flashcards
  - Economics in the News
  - The New York Times eThemes
- Newspaper Articles from local and national newspapers
- National Statistics Websites

---Semester 1---

Module 1: Basic Economic Concepts

Suggested Pace: 2 Weeks

Readings and Materials: Chapters Included in Module 1
Bade and Parkin, Chapters 1 and 3

Content

**Scarcity: the nature of economic systems**
- Identify the conditions that give rise to the economic problem of scarcity
- Compare and contrast different types of economies
- Apply the concept of scarcity to different economic situations

**Opportunity costs**
- Define it and explain how it affects the microeconomy
- Identify opportunity costs of various situations

**Production possibilities**
- Graph and interpret data
- Apply the concept of opportunity costs to a production possibilities curve

**Specialization and comparative advantage: the basis for international trade**
- Define and give examples of comparative and absolute advantage
- Explain gains of trade

**The functions of any economic system (what, how, for whom to produce)**
- Describe and analyze the “economic way of thinking”
- Differentiate between economic and accounting costs
Utilize marginal analysis to make viable economic decisions

Major Assessments:
Comprehensive Module Exam
Free Response Question
  Opportunity Costs/Absolute and Comparative Advantage/Economic Reasoning
Synchronous Discussion Session – Opportunity Cost
Functions of Economic Systems Assessment
Scarcity Assessment
  Opportunity Cost Assessment
Production Possibilities Graphing Practice and Assessment
  Absolute and Comparative Advantage Interactive Assessment

Module 2: Nature and Function of Product Markets

Suggested Pace: 4 Weeks

Readings and Materials: Chapters Included in Module 2
Bade and Parkin, Chapters 4, 5, 6, 7, and 11

Content:

Demand, supply, price determination
  • Describe the behavior of buyers and sellers in a competitive marketplace
  • List and explain the determinants of supply and demand
  • Equilibrium Price, Equilibrium Quantity and the Interrelation of Markets
  • Consumer and Producer Surplus
  • Define and distinguish between income and substitution effects
Elasticity and applications
  • Define and identify types of elasticity - Price, income, and cross-price elasticities of demand
  • Price elasticity of supply
  • Analyze applications of types of elasticity
Models of Consumer Choice
  • Consumer Behavior - Total utility and marginal utility
  • Utility Maximization - equalizing marginal utility per dollar
  • Income and Substitution Effects Revisited
  • Indifference Curves
Impact of Government Policies – Price and Quantity Controls
  • Price Ceilings and Shortages
  • Price Floors and Surpluses
  • Effect of Excise Taxes, Tariffs, and Quotas on free market price and quantity exchanged
AP Microeconomics Syllabus

- Apply price theory to a variety of situations

Major Assessments
Comprehensive Module Exam
Free Response Question
  Demand and Supply/Price and Quantity Controls
Oral Examination – Price Controls
Demand, Supply and Price Determination Graphing Practice and Assessment
Consumer and Producer Surplus Graphing Practice and Assessment
Income and Substitution effects Assessment
Elasticity Interactive Assessment
Behaviors of Buyers and Sellers in a Competitive Market Graphing Practice and Assessment

Module 3: Theory of the Firm: Production - Costs & Revenue and Four Market Models

Suggested Pace: 5 Weeks

Readings and Materials: Chapters Included in Module 3
Bade and Parkin, Chapters 12, 13, 14, 15, 16, and 17

Content:

Production Costs
- Accounting vs. economic profit
- Define and analyze economic costs, normal profit, and economic profit
- Short run production relationships: Law of Diminishing Returns
- Short run production costs: fixed, variable, total; average and marginal
- Long run production costs and Economies/Diseconomies of Scale & Returns to Scale
- Cost minimizing input combination

Pure Competition
- Identify the characteristics of a purely competitive seller
- Profit Maximization in the Short run: MR=MC (Firm & Industry)
- Marginal cost: short run supply and shutdown decision
- Profit maximization in the Long Run: MR=MC at minimum ATC (Firm & Industry)
- Pure Competition and Efficiency

Pure Monopoly
- Identify the characteristics of a purely monopolistic seller
- Output and price determination
• Economic Effects of Monopoly: Compare Perfect Competition to Monopoly
• Model of Price Discrimination
• Regulated Monopoly & Efficiency
• Natural Monopoly

Monopolistic Competition
• Identify the characteristics of a monopolistic competitor
• Price and Output in Monopolistic Competition – Profit Maximization & Short-run and long-run equilibrium
• Monopolistic Competition and Efficiency - Excess capacity and inefficiency
• Product Differentiation and the Role of Advertising

Oligopoly
• Identify the characteristics of an oligopolistic seller
• Interdependence, collusion, and cartels
• Oligopoly Behavior: Game Theory
• Oligopoly and Advertising
• Oligopoly and Efficiency

Major Assessments:

Comprehensive Module Exam
Free Response Questions:
  Production Costs in Product Market/Comparison of Perfect & Imperfect Firm in Product Market/Game Theory

Synchronous Discussion Session – Regulated Monopoly and Efficiency
Production Costs Assessment
Perfect Competition (Profit Maximization in Short and Long Run & Shutdown decision)
Graphing Practice and Assessment
Monopoly: Output and Price Determination Graphing Practice and Assessment
Monopolistic Competition Assessment
Oligopoly/Game Theory Assessment
Comparison of Perfect and Imperfect Firms Interactive Assessment

Module 4: Resource Markets

Suggested Pace: 3 Weeks

Readings and Materials: Chapters Included in Module 3
Bade and Parkin, Chapters 2 and 18

Content:
Circular Flow Model
Marginal Productivity Theory of Resource Demand
  • Resource Demand as a Derived Demand
  • Marginal Resource Product
  • Rule for Employing Resources: MRP=MRC
  • Resource Demand under Imperfect Product Market Competition
Determinants of Resource Demand
Optimal Combination of Resources
  • Least-Cost Rule
  • Profit-Maximizing Rule
Wage Determination
  • Real Wages and Productivity
  • Purely Competitive Labor Market: Demand and Supply of Labor
  • Monopsony Model: Demand and Supply of Labor
  • Labor Market Equilibrium
  • Analyze the effects of resource market structure on wages and employment
Financial Markets
  • Demand for Financial Capital
  • Supply of Financial Capital
  • Financial Market Equilibrium and the Interest Rate
Land and Natural Resource Markets
  • The Market for Land (Renewable Natural Resources)
  • Economic Rent and Opportunity Cost
  • The Supply of a Nonrenewable Natural Resource

Major Assessments:
Comprehensive Module Exam
Free Response Questions
  Circular Flow Model/Marginal Productivity of Resource Demand/Wage Determination
Circular Flow Assessment
Synchronous Discussion Session – Financial Markets
Oral Examination – Economic Rent and Opportunity Cost
Marginal Productivity Theory of Resource Demand Assessment
Determinants of Resource Demand and Optimal Combination of Resources Interactive Assessment
Wage Determination Graphing Practice and Assessment
Module 5: Market Failure and the Role of Government

Suggested Pace: 2 Weeks

Readings and Materials: Chapters Included in Module 3
Bade and Parkin, Chapters 8, 9, and 10

Content:

Private vs. Public Goods
- Describe the characteristics of private and public goods
- Develop a rationale for determining which goods should be produced by the private sector and which by the public sector
- Free Rider Problem
- Common Resources & Efficient Outcome

Externalities
- Positive Externalities/Spillover Benefits – Private and Social
- Negative Externalities/Spillover Costs – Private and Social
- Cost-Benefit Analysis
- Describe the Coase Theorem and use it to analyze how negotiations among private owners can resolve market-allocation problems
- Government Actions in the Face of External Costs & Benefits

Efficiency, Equity, and the Effects of Government Policies
- Define and differentiate between the ability-to-pay and the benefits-received theories of taxation
- Income Tax and Social Security Tax – Define and Analyze Effects
- Economic Inequality - The Lorenz Curve and the Gini Ratio
- Effect of Government Redistribution on economic inequality and poverty

Major Assessments:
Comprehensive Module Exam
Free Response Question
  Free Rider Problem/Externalities/Effect of Government Redistribution on Economic Inequality and Poverty
Oral Examination – Government Actions in the Face of External Costs and Benefits
Private vs. Public Good Assessment
Common Resources & Efficient Outcome and Cost-Benefit Analysis Interactive Assessment
Externalities Graphing Practice and Assessment
Efficiency, Equity, and Effect of Government Redistribution of Income Assessment
Module 6: Review of Microeconomics & Simulated AP Micro Final Exam

Suggested Pace: 1 Week
Content
Review of all content
Free Response Questions
Essential graphs review

Major Assessment
Comprehensive Final Exam and Free Response Questions
ADVANCED PLACEMENT®
PSYCHOLOGY
Advanced Placement Course Audit

**Course:** Advanced Placement Psychology

**Part I: Course Explanation and Syllabus provide to students**

**COURSE DESCRIPTION:**
AP Psychology provides an overview of current psychological research methods and theories. The students will explore the therapies used by professional counselors and clinical psychologists and examine the reasons for normal reactions: how people learn and think, the process of human development and human aggression altruism, intimacy, and self-reflection. The student will study core psychological concepts, such as the brain and sense functions, and learn to gauge human reactions, gather information, and form meaningful syntheses. Along the way, the student will also investigate relevant concepts like study skills and information retention. The equivalent of a 100-level college survey course, AP Psychology prepares the student for the AP Exam and for further studies in psychology and life sciences.

**COURSE OBJECTIVES:**
After successfully finishing the course, students will be able to:

1. Understand the concepts, terminology, and research findings presented in an introductory college psychology course.
2. Utilize investigative and critical thinking skills necessary in the study of psychology.
3. Express interest in the study of psychology and appreciate the place of psychology as a science in modern society.
4. Demonstrate their knowledge of introductory psychology on the Advanced Placement Psychology Examination.

**COURSE OUTLINE:**

**Unit I: Introduction to Psychology**
- Introduction to Psychology
- History of Psychology
- Thinking Like a Psychologist
- Research Strategies

**Unit II: The Biological Basis of Behavior**
- The Nervous and Hormonal Systems
- Nature, Nurture, and Human Diversity

**Unit III: Human Development and Awareness**
- Life Span Development
- Sensation and Perception
- States of Consciousness

**Unit IV: Human Cognition**
- Human Cognition
- Memory
- Thinking & Language
- Intelligence

**Unit V: Human Motivation and Emotion**
- Motivation
- Emotion
- Stress and Health

**Unit VI: Human Interaction**
- Personality
- Psychological Disorders
- Therapy
- Social Psychology

Unit VII: Course Review
- Course Review Part 1
- Course Review Part 2
- Course Review Part
Part II: Overview of all learning objectives, major assignments and assessments

Unit 1 Introduction to Psychology
Objectives:

- Become familiar with the history and scope of psychology.
- Practice thinking like a psychologist.
- Research strategies used in psychology.

Lesson 1: Introduction to Psychology
Students will be able to:
1. Trace the history and scope of psychology
2. Define psychology and its associated fields
   - Fact or Falsehood

Lesson 2: History of Psychology
Students will be able to:
1. Trace the history and scope of psychology
2. Identify historic and modern perspectives in psychology
3. Define psychology and its associated fields

Discussion 1: History of Psychology
Journal Reflection: Modern Perspectives in Psychology
Reading: What is Psychology?
Fields of Psychology Practice
Discovering Psychology Video: Past, Present, and Promise
Lesson 2 Checkup: History of Psychology
History of Psychology Quiz

Lesson 3: Thinking like a Psychologist
Students will be able to:
1. Explain the strengths limitations of research methods in psychology
2. Identify and construct the various elements of an experiment
3. Identify the requirements of ethical research in psychology
4. Apply critical thinking skills to the study of psychology.

Lesson 3 Checkup Thinking Like a Psychologist
Reading: Chapter 1 The science of Psychology
Journal Reflection
Discovering Psychology Video: Understanding Research
Thinking like a Psychologist Quiz

Lesson 4: Research Strategies
Students will be able to:
1. Explain the strengths and limitations of research methods in psychology.
2. Identify and construct the various elements of an experiment.
3. Identify the elements of ethical research in psychology.

Discussion 2: Research Strategies
Journal: Research Methods in Psychology
Research Strategies Quiz

Lesson 5: Unit Review
1. Review concepts from this unit in order to prepare for the Unit Exam.

Read: Statistics in Psychology
Discussion
Introduction to Psychology - Unit Exam

Unit 2 The Biological Basis of Behavior
Objectives:

- Become familiar with the nervous and hormonal systems.
- Describe diversity found in nature, nurture, and humans

Lesson 1: The Nervous and Hormonal Systems
Students will be able to:

1. Explain how the parts of the nervous system function together to create human experience.
2. Describe the nature and functions of the endocrine system and how it interacts with the nervous system.
3. Explain how the parts of the brain function together to create human experience.
4. Describe the methods used to study the brain.

Journal: Neuron and Neural Impulses
Journal: The Nervous System
Crossword Puzzle
Journal: The Brain
Brain-Tools of Discovery
Discussion 1: The Nervous and Hormonal Systems
Discovering Psychology Video: The Behaving Brain
The Nervous and Hormonal Systems Quiz

Lesson 2: Nature, Nurture, and Human Diversity
Students will be able to:

1. Define chromosomes, DNA, genes and genomes, and describe their relationship.
2. Define heritability and understand its application to behavior.
3. Discuss the focus of molecular and evolutionary psychology.
4. Discuss gender differences.
5. Discuss the effects of nature and nurture in development.
6. Discuss culture and its affect on development.
Lesson 3: Unit Review
Discussion 2: Unit Review The Biological Basis of Behavior
Unit 2 Exam: The Biological Basis of Behavior

Unit 3 Human Development and Awareness
Objectives:

- Describe life span development.
- Become familiar with sensation and perception.
- Describe states of consciousness

Lesson 1: Life Span Development
Students will be able to:
1. Explain the major events in prenatal development and the effects of teratogens on the health of newborns
2. Explain the physical, social, emotional and cognitive development of infants and children
3. Explain the major events in adolescent development
4. Explain the major events in adult development and identify the challenges of old age

Discussion 1: Life Span Development
Journal: Parental Development
Journal: Newborns
Reading: Development Across the Life Span
Infant Cognitive Development Video
PBS Video Inside the Teenage Brain
Discovering Psychology Video: Maturity and Aging
Human Development and Awareness Assessment
Life Span Development Quiz

Lesson 2: Sensation and Perception
Students will be able to:

1. Contrast sensation and perception and explain the difference between bottom-up and top-down processing.
2. Distinguish between absolute and difference threshold and discuss whether you can perceive sensations below your absolute threshold.
3. Define transduction and explain its importance.
4. Describe the major structures of the eye and ear and how they are involved in sensation.
5. Explain the major theories of sight, hearing, and color.
6. Describe Gestalt psychology contribution to perception and the rules.
7. Explain depth perception and how monocular and binocular cues contribute to it.

Discovering Psychology Video: Sensation and Perception
Journal: Sensation
Journal: Sensation Experiment
Journal: Perception
Discussion 2: Sensation and Perception
Sensation and Perception Quiz
Lesson 3: States of Consciousness
Students will be able to:

1. Compare and contrast consciousness and altered states.
2. Describe circadian rhythm and the biological clock.
3. List the stages of sleep and what happens in each stage.
4. Discuss risks associated with sleep apnea.
5. Identify the major sleep disorders.
6. Define hypnosis and give arguments for and against hypnosis as an altered state.
7. Identify and give examples of the major divisions of psychoactive drugs. Give examples of their effect on the body and behavior.

Reading: Consciousness
Journal: Levels of Consciousness
Discussion 3: States of Consciousness
Journal: Sleep
Assessment 2: States of Consciousness
States of Consciousness Quiz

Lesson 4: Unit Review
Students will be able to:
1. Review concepts from this unit in order to prepare for the Unit Exam.

Discussion 4: Human Development and Awareness Unit Review
Unit 4 Exam: Human Development and Awareness

Unit 4 Human Cognition
Objectives:

- Become familiar with the use of the terms learning, memory, cognition, and intelligence as used in the field of psychology.

Lesson 1: Human Cognition
Students will be able to:
1. Explain the elements of classical conditioning
   Explain the elements of operant conditioning
   Explain social learning theory
Lesson 2: Memory
Students will be able to:

1. Define memory and explain flashback memories and how they are different from other types of memories.
2. Describe the 3-stage model of memory and how it has been expanded.
3. Contrast effortless processing with automatic processing.
4. Describe the benefits of chunking and hierarchies in expanding memory.
5. Describe the duration and working capacity of short-term and long-term memory.
6. Describe the types of memories that are encoded and explain forgetting.
7. Explain the connection of the brain with memory.

Lesson 3: Thinking and Language
Students will be able to:

1. Define concept and describe the role of categories, hierarchies, and prototypes.
2. Compare algorithms and heuristics.
3. Contrast concept bias and fixation.
4. Explain how "set" can distract our logic.
5. Explain the pros and cons of overconfidence.
6. Describe the basic structural units of language and trace the course of language acquisition.
7. Contrast Skinner's and Chomsky's ideas of language acquisition.

Lesson 4: Intelligence
Students will be able to:

1. Discuss the difficulties in defining intelligence as one or more mental abilities.
2. Compare the one ability and multiple ability theories of intelligence.
3. Define intelligence tests and discuss the history of them.
4. Distinguish between aptitude and achievement tests.
5. Explain the terms validity, reliability, and standardization, and apply them to intelligence tests.
6. Understand the "group" issues in looking at the results of testing.
Lesson 5: Unit Exam
1. Review concepts from this unit in order to prepare for the Unit Exam.
   Discussion: Human Cognition Unit Review
   Lesson Checkup: Human Cognition
   Unit 4 Exam: Human Cognition

Unit 5: Human Motivation and Emotion

Lesson 1: Motivation
1. Define motivation as psychologists use the term today and name four perspectives useful for studying motivated behavior.
2. Describe the physiological, psychological, and cultural determinants of hunger.
3. Discuss the importance of flow and identify the three subfields of industrial-organizational psychology.

Lesson 2: Emotion
Students will be able to:
1. Explain three components of emotions and contrast the James-Lange, Cannon-Bard, and two-factor theories of emotion.
2. Describe the physiological, psychological, gender, and cultural determinants of emotion, expressed emotion, and interpreting emotion.
3. Describe several basic emotions and two dimensions psychologists use to differentiate emotions.
4. Discuss biological triggers of fear and consequences of anger.
5. Analyze the relationship between affluence and happiness.
6. Describe how adaptation and relative deprivation affect our appraisals of our achievements.
7. Summarize ways we can influence our own level of happiness.

Lesson 3: Stress and Health

Students will be able to:

1. Identify some behaviors and related concerns of illness and death and describe health psychologists’ contributions.
2. Describe the role of appraisal in the way we respond to stressful events; describe the dual-track system by which our bodies respond to stress.
3. Discuss General Adaptation Syndrome and the three steps involved in it.
4. Discuss the health consequences of catastrophic, significant life changes and the hassles of daily life.
5. Discuss the role of stress in coronary heart disease and its relationship to Type A and B personalities.
6. Contrast problem-focused coping and emotion-focused coping; describe the effects of social support; understand why people smoke and why it is so hard to stop.
7. Discuss the reason that we store fat and why the battle to lose weight is so hard; describe the social effects of obesity.

Lesson 4: Unit Review

1. Review concepts from this unit in order to prepare for the Unit Exam.

Unit Test: Human Motivation and Emotion

Unit 6: Human Interaction

Lesson 1: Personality

Students will be able to:

1. Define personality and identify various personality assessments.
2. Explain personality theories from the four main perspectives.
3. Identify important historical figures associated with psychoanalytic, trait, humanistic, and social-cognitive perspectives.

Reading: Theories of Personality
Journal: Personality
Discovering Psychology Video: The Self
Personality Quiz

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Lesson 2: Psychological Disorders
Students will be able to:

1. Identify the criteria for judging whether behavior is psychologically disordered; and contrast the medical model of psychological disorders with the biospsychological approach.
2. Describe the DSM-IV and its goals; and contrast the pros and cons of using the DSM-IV.
3. Define anxiety disorders and how they differ from the normal feelings of stress and anxiety.
4. Explain phobias and how they differ from normal fears.
5. Describe the symptoms of obsessive-compulsive disorder; describe post traumatic stress disorder; describe dissociative disorders; and describe personality disorders.
6. Define mood disorders and distinguish major depression from bipolar disorder.
7. Describe the symptoms and types of schizophrenia; and explain how the different perspectives account for the various disorders.

Journal: Psychological Disorders I
Reading: Psychological Disorders
Journal Psychological Disorders II
Discovering psychology Video: Psychopathology
Journal: Schizophrenia
Discussion: Psychological Disorders
Writing Assessment: Psychological Disorders
Psychological Disorders Quiz

Lesson 3: Therapy
Students will be able to:
1. Describe the historic and current psychotherapies
2. Evaluate the effectiveness of the historic and current psychotherapies
3. Identify and evaluate the available biomedical therapies

Journal: Therapy
Reading: Psychological Therapies
Discussion Therapy
Discovering Psychology Video: Psychotherapy
Therapy Quiz

Lesson 4: Social Psychology
Students will be able to:
1. Explain how humans explain the behavior of others
2. Explain how humans develop attitudes and the extent to which attitudes influence behavior
3. Explain the influence of others on behavior
4. Explain how humans relate to each other

   Reading: Social Psychology
   Journal: Issues with diversity in Psychology
   Discussion: Social Psychology
   Journal: Important Experiments in Social Psychology
   Writing Assessment: Social Psychology
   Social Psychology Quiz

Lesson 5: Unit Review
Students will be able to:
1. Review concepts from this unit in order to prepare for the Unit Exam.

   Discussion: Personality Unit Review
   Unit Test: Human Interaction

Unit 7: Course Review
Objectives:
- Review for the final exam
- Prepare for the AP Psychology exam

Lesson 1: Course Review Part 1
Students will be able to
1. Assess their level of preparation for the AP Psychology Exam
2. Identify test-taking strategies appropriate for the AP Psychology Exam
3. Review common terms, concepts, and theories on the AP Psychology Exam

   Journal: AP Exam Multiple Choice Preparation
   Journal: AP Exam Free Response

Lesson 2: Course Review Part 2
   AP Psychology Practice Exam
   Multiple Choice and short answer

Lesson 3: Course Review Part 3
   AP Psychology Final Exam
Part III: Required Texts

Part IV: Other details required for audit

<table>
<thead>
<tr>
<th>Title</th>
<th>Format</th>
<th>Publisher</th>
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<tbody>
<tr>
<td>PsychSims</td>
<td>Computer Simulations</td>
<td>Worth Publishers</td>
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<tr>
<td>Discovering Psychology</td>
<td>Video Programs</td>
<td>WBGH Boston and APA</td>
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EVIDENCE GRID FOR AP PSYCHOLOGY

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>Location in Course</th>
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<tbody>
<tr>
<td>The course provides instruction in history and approaches</td>
<td>Unit 1: Welcome to Psychology</td>
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<tr>
<td></td>
<td>Lesson 1: The History of Psychology</td>
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<tr>
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<td>Objectives:</td>
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<tr>
<td></td>
<td>• Define psychology.</td>
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<tr>
<td></td>
<td>• Explain how the early psychologists sought to understand the mind’s structure and functions, and identify some of the leading psychologists who worked in these areas.</td>
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<td></td>
<td>• Describe the evolution of psychology as defined from the 1920s through</td>
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</table>
• Identify the three main levels of analysis in the biopsychosocial approach, and explain why psychology’s varied perspectives are complementary.
• Identify some of psychology’s subfields, and explain the difference between clinical psychology and psychiatry.

The course provides instruction in research methods

Unit 1: Why Study Psychology
Lesson 3: Thinking Like a Psychologist
Lesson 4: Research Strategies

• Explain how the scientific attitude encourages critical thinking.
• Describe how psychological theories guide scientific research.
• Explain why psychologists study animals, and discuss the ethics of experimentation with both animals and humans.
• Identify an advantage and a disadvantage of using case studies to study behavior.
• Identify the advantages and disadvantages of using surveys to study behavior and mental processes, and explain the importance of wording effects and random sampling.
• Identify an advantage and a disadvantage of using naturalistic observation to study behavior.
• Describe positive and negative correlations, and explain how correlational measures can aid the process of prediction.
• Explain why correlational research fails to provide evidence of cause-effect relationships.
• Explain how experiments help researchers isolate cause and effect.
• Explain why the double-blind procedure and random assignment build confidence in research findings.
• Explain the difference between an independent and a dependent variable.
• Describe the three measures of central tendency, and tell which is most affected by extreme scores.

The course provides instruction in the biological bases of behavior

Unit 2: The Biological Basis of Behavior
Lesson 1: The Nervous and Hormonal Systems

Objectives:
• Describe the parts of a neuron, and explain how its impulses are generated.
• Describe how nerve cells communicate.
• Explain how neurotransmitters affect behavior, and outline the effects of acetylcholine and the endorphins.
• Explain how drugs and other chemicals affect neurotransmission, and describe the contrasting effects of agonists and antagonists.
• Describe the nervous system’s two major divisions, and identify the three types of neurons that transmit information through the system.
• Identify the subdivisions of the peripheral nervous system, and describe their functions.
• Describe the nature and functions of the endocrine system and its interaction with the nervous system.
• Describe several techniques for studying the brain.
• Describe the components of the brainstem, and summarize the functions
<table>
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<tr>
<th>of the brainstem, thalamus, and cerebellum.</th>
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<tbody>
<tr>
<td>• Describe the structures and functions of the limbic system, and explain how one of these structures controls the pituitary gland.</td>
</tr>
<tr>
<td>• Define cerebral cortex, and explain its importance to the human brain.</td>
</tr>
<tr>
<td>• Identify the four lobes of the cerebral cortex.</td>
</tr>
<tr>
<td>• Summarize some of the findings on the functions of the motor cortex and the sensory cortex, and discuss the importance of the association areas.</td>
</tr>
<tr>
<td>• Describe the five brain areas that would be involved if you read this sentence aloud.</td>
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<tr>
<td>• Discuss the brain’s plasticity following injury or illness.</td>
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<tr>
<td>• Describe split-brain research, and explain how it helps us understand the functions of our left and right hemispheres.</td>
</tr>
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<tr>
<th>Unit 3: Human Development and Awareness</th>
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<tbody>
<tr>
<td>Lesson 2: Sensation and Perception</td>
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<tr>
<td>Objectives:</td>
</tr>
<tr>
<td>• Contrast sensation and perception, and explain the difference between bottom-up and top-down processing.</td>
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<tr>
<td>• Distinguish between absolute and difference thresholds, and discuss whether we can sense stimuli below our absolute thresholds and be influenced by them.</td>
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<tr>
<td>• Describe sensory adaptation, and explain how we benefit from being unaware of unchanging stimuli.</td>
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<tr>
<td>• Describe the interplay between attention and perception.</td>
</tr>
<tr>
<td>• Define transduction, and specify the form of energy our visual system converts into the neural messages our brain can interpret.</td>
</tr>
<tr>
<td>• Describe the major structures of the eye, and explain how they guide an incoming ray of light toward the eye’s receptor cells.</td>
</tr>
<tr>
<td>• Contrast the two types of receptor cells in the retina, and describe the retina’s reaction to light.</td>
</tr>
<tr>
<td>• Discuss the different levels of processing that occur as information travels from the retina to the brain’s cortex.</td>
</tr>
<tr>
<td>• Define parallel processing, and discuss its role in visual information processing.</td>
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<tr>
<td>• Explain how the Young-Helmholtz and opponent-process theories help us understand color vision.</td>
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<tr>
<td>• Explain the importance of color constancy.</td>
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<tr>
<td>• Describe the three regions of the ear, and outline the series of events that triggers the electrical impulses sent to the brain.</td>
</tr>
<tr>
<td>• Contrast place and frequency theories, and explain how they help us to understand pitch perception.</td>
</tr>
<tr>
<td>• Describe how we pinpoint sounds.</td>
</tr>
<tr>
<td>• Contrast two types of hearing loss, and describe some of their causes.</td>
</tr>
<tr>
<td>• Describe how cochlear implants function, and explain why Deaf culture advocates object to these devices.</td>
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<tr>
<td>• Describe the sense of touch.</td>
</tr>
<tr>
<td>• State the purpose of pain, and describe the biopsychosocial approach to pain.</td>
</tr>
<tr>
<td>• Describe the sense of taste, and explain the principle of sensory interaction.</td>
</tr>
<tr>
<td>• Describe the sense of smell, and explain why specific odors so easily trigger memories.</td>
</tr>
<tr>
<td>• Distinguish between kinesthesis and the vestibular sense.</td>
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<tr>
<td>The course provides instruction in stages of consciousness</td>
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</tbody>
</table>
|  - Explain how illusions help us to understand some of the ways we organize stimuli into meaningful perceptions.  
  - Describe Gestalt psychology’s contribution to our understanding of perception.  
  - Explain the figure-ground relationship, and identify principles of perceptual grouping in form perception.  
  - Explain the importance of depth perception, and discuss the contribution of visual cliff research to our understanding of this ability.  
  - Describe two binocular cues for perceiving depth, and explain how they help the brain to compute distance.  
  - Explain how monocular cues differ from binocular cues, and describe several monocular cues for perceiving depth.  
  - Explain the importance of perceptual constancy.  
  - Describe the shape and size constancies, and explain how our expectations about perceived size and distance contribute to some visual illusions.  
  - Discuss lightness constancy and its similarity to color constancy.  
  - Define perceptual set, and explain how it influences what we do and do not perceive.  
  - Explain why the same stimulus can evoke different perceptions in different contexts. | Lesson 3: States of Consciousness |
|                                                                                   | Objectives:                           |
|                                                                                   |  - Describe the cycle of our circadian rhythm, and identify some events that can disrupt this biological clock.  
  - List the stages of the sleep cycle and explain how they differ.  
  - Explain why sleep patterns and duration vary from person to person.  
  - Discuss several risks associated with sleep deprivation.  
  - Identify modern theories of why we sleep.  
  - Identify the major sleep disorders.  
  - Compare the major perspectives on why we dream.  
  - Define hypnosis, and note some similarities between the behavior of hypnotized people and that of motivated non-hypnotized people.  
  - Define psychoactive drug.  
  - Discuss the nature of drug dependence and identify three common misconceptions about drug addiction.  
  - Name the main categories of psychoactive drugs and list ways these substances can interfere with neurotransmission in the brain.  
  - Discuss the biological, psychological, and social-cultural factors that contribute to drug use. | |
|                                                                                   | Unit 4: Human Cognition               |
|                                                                                   | Lesson 1: Human Cognition             |
|                                                                                   | Objectives:                           |
|                                                                                   |  - Define learning, and identify two forms of learning.  
  - Define classical conditioning and behaviorism and describe the basic components of classical conditioning. |
The course provides instruction in learning

<table>
<thead>
<tr>
<th>Objectives</th>
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</thead>
<tbody>
<tr>
<td>• Describe the timing requirements for the initial learning of a stimulus-response relationship.</td>
</tr>
<tr>
<td>• Summarize the processes of extinction, spontaneous recovery, generalization, and discrimination.</td>
</tr>
<tr>
<td>• Discuss the survival value of generalization and discrimination.</td>
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<tr>
<td>• Discuss the importance of cognitive processes in classical conditioning.</td>
</tr>
<tr>
<td>• Summarize Pavlov’s contribution to our understanding of learning.</td>
</tr>
<tr>
<td>• Identify the two major characteristics that distinguish classical conditioning from operant conditioning.</td>
</tr>
<tr>
<td>• State Thorndike’s law of effect, and explain its connection to Skinner’s research on operant conditioning.</td>
</tr>
<tr>
<td>• Describe the shaping.</td>
</tr>
<tr>
<td>• Compare positive and negative reinforcement, and give examples of each of a primary reinforcer, a conditioned reinforcer, an immediate reinforcer, and a delayed reinforcer.</td>
</tr>
<tr>
<td>• Discuss the strengths and weaknesses of continuous and partial (intermittent) reinforcement schedules, and identify four schedules of partial reinforcement.</td>
</tr>
<tr>
<td>• Discuss the ways negative punishment, positive punishment, and negative reinforcement differ, and list some drawbacks of punishment as a behavior-control technique.</td>
</tr>
<tr>
<td>• Explain how latent learning and the effect of external rewards demonstrate that cognitive processing is an important part of learning.</td>
</tr>
<tr>
<td>• Identify the major similarities and differences between classical and operant conditioning.</td>
</tr>
<tr>
<td>• Describe the process of observational learning and explain the importance of the discovery of mirror neurons.</td>
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<tr>
<td>• Describe Bandura’s findings on what determines whether we will imitate a model.</td>
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</tbody>
</table>

Unit 4: Human Cognition
Lesson 2: Memory and Lesson 3: Thinking and Language

Objectives:

<table>
<thead>
<tr>
<th>Objective</th>
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<tbody>
<tr>
<td>• Define memory, and explain how flashbulb memories differ from other memories.</td>
</tr>
<tr>
<td>• Describe the types of information we encode automatically.</td>
</tr>
<tr>
<td>• Contrast effortful processing with automatic processing, and discuss the next-in-line effect, the spacing effect, and the serial position effect.</td>
</tr>
<tr>
<td>• Compare the benefits of visual, acoustic, and semantic encoding in remembering verbal information, and describe a memory-enhancing strategy related to the self-reference effect.</td>
</tr>
<tr>
<td>• Discuss the use of chunking and hierarchies in effortful processing.</td>
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<tr>
<td>• Contrast two types of sensory memory.</td>
</tr>
<tr>
<td>• Describe the duration and working capacity of short-term memory and long-term memory.</td>
</tr>
<tr>
<td>• Distinguish between implicit and explicit memory, and identify the main brain structure associated with each.</td>
</tr>
<tr>
<td>• Explain how retrieval cues can help us access stored memories, and describe the process of priming.</td>
</tr>
</tbody>
</table>
- Cite some ways that context can affect retrieval.
- Describe the effects of internal states on retrieval.
- Explain why we should value our ability to forget, and distinguish three general ways our memory fails us.
- Discuss the role of encoding failure in forgetting.
- Discuss the concept of storage decay, and describe Ebbinghaus’ forgetting curve.
- Contrast proactive and retroactive interference, and explain how they can cause retrieval failure.
- Summarize Freud’s concept of repression, and state whether this view is reflected in current memory research.
- Explain how misinformation and imagination can distort our memory of an event.
- Define cognition.
- Describe the roles of categories, hierarchies, definitions, and prototypes in concept formation.
- Compare algorithms and heuristics as problem-solving strategies, and explain how insight differs from both of them.
- Contrast confirmation bias and fixation, and explain how they can interfere with effective problem solving.
- Contrast the representativeness and availability heuristics, and explain how they can cause us to underestimate or ignore important information.
- Describe the drawbacks and advantages of overconfidence in decision making.
- Describe how others can use framing to elicit from us the answers they want.
- Describe the basic structural units of a language.
- Trace the course of language acquisition from the babbling stage through the two-word stage.
- Discuss Skinner’s and Chomsky’s contributions to the nature-nurture debate over how children acquire language, and explain why statistical learning and critical periods are important concepts in children’s language learning.
- Summarize Whorf’s linguistic determinism hypothesis and comment on its standing in contemporary psychology.

| The course provides instruction in motivation | Unit 5: Human Motivation and Emotion |
| Lesson 1 Motivation and Lesson 2 Emotion |

**Objectives:**
- Define motivation as psychologists use the term today and name perspectives useful for studying motivated behavior.
- Explain how drive-reduction theory views human motivation.
- Discuss the contribution of arousal theory to the study of motivation.
- Describe Maslow’s hierarchy of needs.
- Describe the physiological determinants of hunger.
- Discuss psychological and cultural influences on hunger.
- Explain how the eating disorders anorexia nervosa and bulimia nervosa demonstrate the influence of psychological forces on physiologically
motivated behavior.

- Describe the adaptive value of social attachments, and identify both healthy and unhealthy consequences of our need to belong.
- Discuss the importance of flow, and identify the three subfields of industrial-organizational psychology.
- Define achievement motivation, and explain why organizations would employ an I/O psychologist to help motivate employees and foster employee satisfaction.

| The course provides instruction in developmental psychology | Unit 3: Human Development and Awareness
Lesson 1: Life-Span Development

Objectives:
- Identify the major issues in developmental psychology.
- Explain how teratogens can affect development.
- Describe some abilities of the newborn, and explain how researchers use habituation to assess infant sensory and cognitive abilities.
- Explain why maturation accounts for many of our similarities.
- Outline four events in the motor development sequence from birth to toddlerhood, and evaluate the effects of maturation and experience on that sequence.
- Explain the importance of Piaget's theory of cognitive development and discuss the importance of assimilation and accommodation in this process.
- Outline Piaget's four main stages of cognitive development, and explain how children’s thinking changes during these four stages.
- Discuss psychologists’ current views on Piaget’s theory of cognitive development.
- Define stranger anxiety.
- Discuss the effects of nourishment, body contact, and familiarity on infant social attachment and explain Harlow’s contribution to our understanding of how attachments form.
- Trace the onset and development of children’s self-concept.
- Describe three parenting styles, and offer three potential explanations for the link between authoritative parenting and social competence.
- Define adolescence.
- Identify the major physical changes during adolescence.
- Discuss moral development from the perspectives of moral thinking, moral feeling, and moral action.
- Identify Erikson’s eight stages of psychosocial development and their accompanying issues.
- Identify the major physical changes that occur in middle and late adulthood
- Summarize the contributions of cross-sectional and longitudinal studies to our understanding of the normal effects of aging on adult intelligence.
- Discuss the importance of love, marriage, and children in adulthood, and comment on the contribution of one’s work to feelings of self-satisfaction.
### The course provides instruction in personality

#### Unit 6: Human Interaction

#### Lesson 1: Personality

**Objectives:**
- Define personality.
- Explain how Freud's experiences in private practice led to his theory of psychoanalysis.
- Discuss Freud's view of the mind as an iceberg, and explain how he used this image to represent conscious and unconscious regions of the mind.
- Describe Freud's view of personality structure, and discuss the interactions of the id, ego, and superego.
- Identify Freud's psychosexual stages of development, and describe the effects of fixation on behavior.
- Describe the function of defense mechanisms, and identify them.
- Contrast the views of the neo-Freudians and psychodynamic theorists with Freud's original theory.
- Describe two projective tests used to assess personality, and discuss some criticisms of them.
- Summarize psychology's current assessment of Freud's theory of psychoanalysis.
- Summarize Abraham Maslow's concept of self-actualization, and explain how his ideas illustrate the humanistic perspective.
- Discuss Carl Rogers' person-centered perspective, and explain the importance of unconditional positive regard.
- State the major criticisms of the humanistic perspective on personality.
- Describe some of the ways psychologists have attempted to compile a list of basic personality traits.
- Explain how psychologists use personality inventories to assess traits, and discuss the most widely used inventory.
- Identify the Big Five personality factors, and discuss some of the strengths of this approach to studying personality.
- Describe the social-cognitive perspective, and explain how reciprocal determinism illustrates that perspective.
- Discuss the effects of a perception of internal or external control, and describe the concept of learned helplessness.
- Discuss the link between performance and optimistic or pessimistic attributional style, and describe the goals of positive psychology.
- Summarize the criticisms of the social-cognitive perspective.
- Discuss some evidence for self-serving bias, and contrast defensive and secure self-esteem.

### The course provides instruction in testing and individual differences

#### Unit 4: Human Cognition

#### Lesson 4: Intelligence

- Discuss the difficulty of defining intelligence, and explain what it means to "reify intelligence."
| The course provides instruction in abnormal psychology | • Present arguments for and against defining intelligence as one general mental ability.  
• Compare Gardner’s and Sternberg’s theories of intelligence.  
• Describe the four aspects of emotional intelligence, and discuss criticisms of this concept.  
• Identify the factors associated with creativity, and describe the relationship between creativity and intelligence.  
• Define intelligence test, and discuss the history of intelligence testing.  
• Distinguish between aptitude and achievement tests, and describe modern tests of mental abilities such as the WAIS.  
• Discuss the importance of standardizing psychological tests, and describe the distribution of scores in a normal curve.  
• Explain what it means to say that a test is reliable.  
• Explain what it means to say a test is valid, and describe two types of validity.  
• Describe the stability of intelligence scores over the life span.  
• Discuss the two extremes of the normal distribution of intelligence.  
• Describe similarities and differences in intelligence test scores, and discuss some genetic and environmental factors that might explain them.  
• Discuss whether intelligence tests are biased, and describe the stereotype threat phenomenon. |

| Unit 6: Human Interaction  
Lesson 2: Psychological Disorders  
Objectives: | • Identify the criteria for judging whether behavior is psychologically disordered.  
• Contrast the medical model of psychological disorders with the biopsychosocial approach to disordered behavior.  
• Describe the goals and content of the DSM-IV.  
• Discuss the potential dangers and benefits of using diagnostic labels.  
• Define anxiety disorders, and explain how these conditions differ from normal feelings of stress, tension, or uneasiness.  
• Contrast the symptoms of generalized anxiety disorder and panic disorder.  
• Explain how a phobia differs from the fears we all experience.  
• Describe the symptoms of obsessive-compulsive disorder.  
• Describe the symptoms of post-traumatic stress disorder, and discuss survivor resiliency.  
• Discuss the contributions of the learning and biological perspectives to our understanding of the development of anxiety disorders.  
• Discuss the contributions of the learning and biological perspectives to our understanding of the development of dissociative identity disorder and anxiety disorders.  
• Contrast the three clusters of personality disorders, and describe the behaviors and brain activity associated with antisocial personality disorder. |
### The course provides instruction in treatment of psychological disorders

#### Objectives:
- Define mood disorders, and contrast major depressive disorder and bipolar disorder.
- Summarize the contributions of the biological perspective to the study of depression, and discuss the link between suicide and depression.
- Summarize the contributions of the social-cognitive perspective to the study of depression, and describe the events in the cycle of depression.
- Describe the symptoms of schizophrenia, and differentiate delusions and hallucinations.
- Distinguish the five subtypes of schizophrenia, and contrast chronic and acute schizophrenia.
- Outline some abnormal brain chemistry, functions, and structures associated with schizophrenia, and discuss the possible link between prenatal viral infections and schizophrenia.
- Discuss the evidence for a genetic contribution to the development of schizophrenia.

### Unit 6: Human Interaction

#### Lesson 3: Therapy

**Objectives:**
- Define psychotherapy, and explain what we mean by an eclectic approach to therapy.
- Define psychoanalysis, describe some of the methods used, and discuss the aims and the criticisms of this form of therapy.
- Identify the basic characteristics of the humanistic therapies, and describe the specific goals and techniques of Carl Rogers’ client-centered therapy.
- Explain how the basic assumption of behavior therapy differs from those of traditional psychoanalytic and humanistic therapies.
- Define counter conditioning, and describe the techniques used in exposure therapies and aversive conditioning.
- Describe the views of proponents and critics of behavior modification.
- Contrast cognitive therapy and cognitive-behavior therapy, and give some examples of cognitive therapy for depression.
- Discuss the rationale and benefits of group therapy, including family therapy.
- Give some reasons why clinicians and clients tend to overestimate the effectiveness of psychotherapy, and describe two phenomena that contribute to clients’ and clinicians’ misperceptions in this area.
- Describe the importance of outcome studies in judging the effectiveness of the psychotherapies, and discuss some of these findings.
- Summarize the findings on which psychotherapies are most effective for specific disorders.
- Evaluate the effectiveness of eye movement desensitization and reprocessing (EMDR) and light exposure therapies.
- Describe the three benefits attributed to all psychotherapies.
- Define psychopharmacology, and explain how double-blind studies help researchers evaluate a drug’s effectiveness.
- Discuss the characteristics of antipsychotic drugs, and discuss their use in treating schizophrenia.
### Characteristics of Antimanic and Antidepressant Drugs

- **Describe the characteristics of anti-anxiety drugs.**
- **Describe the characteristics of antidepressant drugs, and discuss their use in treating specific disorders.**
- **Describe the use and effects of mood-stabilizing medications.**
- **Describe the use of electroconvulsive therapy in treating severe depression, and discuss some possible alternatives to ECT.**
- **Summarize the history of the psychosurgical procedure known as a lobotomy, and discuss the use of psychosurgery today.**

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### The Course Provides Instruction in Social Psychology

#### Unit 6: Human Interaction

**Lesson 4: Social Psychology**

**Objectives:**

- Describe the three main focuses of social psychology.
- Contrast dispositional and situational attributions, and explain how the fundamental attribution error can affect our analysis of behavior.
- Define attitude.
- Describe the conditions under which attitudes can affect actions.
- Explain how the foot-in-the-door phenomenon, role-playing, and cognitive dissonance illustrate the influence of actions on attitudes.
- Describe the chameleon effect, and give an example of it.
- Discuss Asch’s experiments on conformity, and distinguish between normative and informational social influence.
- Describe Milgram’s experiments on obedience, and outline the conditions in which obedience was highest.
- Describe the conditions in which the presence of others is likely to result in social facilitation, social loaing, or de-individuation.
- Discuss how group interaction can facilitate group polarization and groupthink.
- Identify the characteristic common to minority positions that sway majorities.
- Identify the three components of prejudice.
- Discuss the social factors that contribute to prejudice.
- Explain how scape-goating illustrates the emotional component of prejudice.
- Cite four ways that cognitive processes help create and maintain prejudice.
- Explain how psychology’s definition of aggression differs from everyday usage.
- Describe three levels of biological influences on aggression.
- Outline four psychological triggers of aggression.
- Describe the influence of proximity, physical attractiveness, and similarity on interpersonal attraction.
- Describe the effect of physical arousal on passionate love, and identify two predictors of enduring companionate love.
- Define altruism, and give an example.
- Describe the steps in the decision-making process involved in bystander intervention.
- Explain altruistic behavior from the perspective of social exchange theory.
The course provides instruction in empirically supported psychological facts, findings, terminology, associated phenomena, major figures, perspectives and psychological experiences.

<table>
<thead>
<tr>
<th>Overall course objectives:</th>
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</thead>
<tbody>
<tr>
<td>• Describe major theories and perspectives and their relevance to topics throughout the course</td>
</tr>
<tr>
<td>• Describe actual studies in psychology including, but not limited to, the research of Milgram, Bandura, Loftus, Binet, Piaget, Pavlov, Seligman, Asch, Skinner, Watson, Rogers, Maslow, and Freud and how they were conducted</td>
</tr>
<tr>
<td>• Define and utilize the terminology of psychology to explain common human experiences</td>
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<tr>
<td>• Utilize the biopsychosocial approach of understanding and explaining psychological phenomena</td>
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<tr>
<td>• Develop critical thinking necessary to evaluate psychological findings and claims</td>
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</table>
ADVANCED PLACEMENT®
SPANISH LANGUAGE
& CULTURE
# AP Spanish Language and Culture — Semesters A and B

<table>
<thead>
<tr>
<th>Curricular Requirements</th>
<th>Page(s)</th>
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<tbody>
<tr>
<td>CR1</td>
<td>3</td>
</tr>
<tr>
<td>Instructional materials include a variety of authentic audio and video recordings.</td>
<td>7, 9, 19, 21, 22, 23, 25, 30, 31, 32, 34, 35, 36, 38, 39, 40</td>
</tr>
<tr>
<td>Instructional materials include a variety of authentic nonliterary texts such as newspaper and magazine articles.</td>
<td>7, 11, 13, 14, 15, 20, 22, 23, 25, 26, 29, 30, 31, 34, 35, 36, 38, 39, 40</td>
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<tr>
<td>Instructional materials include a variety of authentic literary texts.</td>
<td>10, 11, 14, 15, 16, 31</td>
</tr>
<tr>
<td>The course provides opportunities for students to demonstrate their proficiency in Spoken Interpersonal Communication in a variety of situations in the Intermediate to Pre-Advanced range.</td>
<td>8, 11, 13, 16, 18, 19, 21, 22, 27, 28, 30, 32, 34, 35, 36, 37, 39, 40</td>
</tr>
<tr>
<td>The course provides opportunities for students to demonstrate their proficiency in Written Interpersonal Communication in a variety of situations in the Intermediate to Pre-Advanced range.</td>
<td>4, 8, 12, 13, 15, 16, 18, 19, 20, 23, 31, 32, 36, 39, 40</td>
</tr>
<tr>
<td>The course provides opportunities for students to demonstrate their ability in Interpretive Communication to understand and synthesize information from a variety of authentic audio, visual, and audiovisual materials.</td>
<td>7, 9, 11, 13, 14, 15, 17, 18, 21, 22, 23, 24, 25, 27, 30, 31, 32, 34, 35, 36, 37, 38, 39</td>
</tr>
<tr>
<td>The course provides opportunities for students to demonstrate their ability in Interpretive Communication to understand and synthesize information from a variety of authentic written and print resources.</td>
<td>7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40</td>
</tr>
<tr>
<td>The course provides opportunities for students to demonstrate their proficiency in Spoken Presentational Communication in the Intermediate to Pre-Advanced range.</td>
<td>8, 9, 12, 13, 16, 17, 19, 20, 23, 24, 26, 27, 29, 30, 31, 32, 35, 36, 37, 39, 40</td>
</tr>
<tr>
<td>The course provides opportunities for students to demonstrate their proficiency in Written Presentational Communication in the Intermediate to Pre-Advanced range.</td>
<td>7, 9, 13, 15, 16, 20, 22, 24, 25, 26, 27, 29, 30, 33, 34, 38</td>
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<tr>
<td>The course explicitly addresses the Global Challenges theme.</td>
<td>6, 9, 17, 20, 24, 28, 33, 37</td>
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<tr>
<td>The course explicitly addresses the Science and Technology theme.</td>
<td>17, 20, 37</td>
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<tr>
<td>The course explicitly addresses the Contemporary Life theme.</td>
<td>6, 8, 9, 13, 20, 24, 28, 33, 37</td>
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<tr>
<td>The course explicitly addresses the Personal and Public Identities theme.</td>
<td>10, 14, 20, 28, 33</td>
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<tr>
<td>Curricular Requirements</td>
<td>Page(s)</td>
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<tr>
<td>CR6e</td>
<td>The course explicitly addresses the families and Communities theme.</td>
</tr>
<tr>
<td>CR6f</td>
<td>The course explicitly addresses the Beauty and Aesthetics theme.</td>
</tr>
<tr>
<td>CR7</td>
<td>The course provides opportunities for students to demonstrate an understanding of the products, practices, and perspectives of the target cultures.</td>
</tr>
<tr>
<td>CR8</td>
<td>The course provides opportunities for students to make comparisons between and within languages and cultures.</td>
</tr>
<tr>
<td>CR9</td>
<td>The course prepares students to use the target language in real-life settings.</td>
</tr>
</tbody>
</table>
Course Summary:

The main objective of the AP Spanish Language course is to develop students’ interpersonal, interpretive, and presentational communication skills in Spanish and to prepare the students for the AP language examination. Three or four years of Spanish, or the equivalent, are prerequisites for this course. The fundamental objective is for the students to achieve a high level of ability in listening, speaking, reading, and writing. In this course students develop a strong command of the Spanish language, with proficiency in integrating language skills and synthesizing written and aural materials. They increase proficiency in the formal writing process, extensive interpersonal and presentational speaking and writing techniques, and aural comprehension skills through quality, authentic, and level-appropriate audio and video recordings. Students are exposed to literature and historical and current events of Spanish-speaking countries through authentic newspapers and magazines, music, movies, radio and television productions, literary texts, and virtual visits online. Students will also use Spanish to access information and to compare and contrast cultural elements of Spanish-speaking countries with their own. This course includes continuous integration of language skills (reading, writing, listening, and speaking) with a rigorous review of grammatical structures. Therefore, the students must not only be aware of the considerable amount of work required by the course, but they must also have a high level of motivation and interest to use the language outside of class. It is imperative that the students read, write, hear, and speak the target language in and out of class.

Teaching Strategies

Listening and speaking (interpersonal, presentational, and interpretative modes)

These are integral parts of this class. The teacher will conduct the class entirely in Spanish, offering students opportunities to demonstrate their proficiency across the modes of communication in the Intermediate to Pre-Advanced range. [CR1]. While in class, the students are expected to speak to the teacher in Spanish. The students will also respond to conversational prompts, such as interviews, asking for directions and advice. The students will give oral presentations participate in class, and have group discussions in Spanish. There will be at least one oral assessment every three weeks. The students will listen to dialogues and narratives to make inferences and predictions. They will interpret messages, lectures, and other spoken materials using a variety of authentic regional accents to become familiar with pronunciation and dialects of various Spanish-speaking countries. They will also complete spoken homework assignments that are recorded and submitted to teachers as audio files for grading.

Authentic Listening Resources

Las Voces de las mujeres de Xelajú
http://nflrc.hawaii.edu/voces/
Nuevos horizontes
www.nuevoshorizontes.org
Think Spanish
www.thinkspanish.com
Reading
The students will read and interpret selected samples of authentic literary prose and poetry from the AP Spanish Literature list. This preview of literary works has various goals. Some of these students will enroll in AP Literature next year and/or they will acquire confidence that they can continue to the next level of Spanish (AP Spanish Literature). Students will read individually, followed by group discussions. After reading each work, the students will also complete a graphic organizer for each work. The students will discuss the characters, the plots, and the themes. Thus, the students have opportunities to integrate reading, writing, and speaking skills. Students will also read contemporary topics in newspapers from the Spanish-speaking countries. Students will select a global issue affecting a Spanish-speaking country of their choice. Students are asked to read newspaper(s) from that country. Using his or her own words, the student will write a summary of the newspaper article. Written discussions are held to discuss the news the students have read. Each student will prepare an oral presentation on what he or she has learned about the country. Thus, the students have opportunities to integrate reading, writing, and speaking.

Authentic Reading Resources
Paperboy www.thepaperboy.com
Prensa Escrita www.prensaescrita.com
BBC Mundo www.bbc mundo.com

Grammar
Students will review important grammatical aspects of the Spanish language. The course will include advanced grammatical structures. The areas include, but are not limited to, verb tenses and moods (ser v. estar, preterit v. imperfect, sequence of tenses, commands, complex constructions using the subjunctive, irregular and spelling change verbs, perfect tenses), nouns and their modifiers (direct and indirect object pronouns, relative pronouns, adjective placement), and other verbal and syntactic constructions (passive voice, reflexives, making comparisons, por v. para, prepositions, transitions, accentuation, etc.).

Writing
Every semester, each student writes formal, well-organized analytical or persuasive presentational essays on an appropriate topics in reaction to a text or information discussed or viewed, which are evaluated for their content, organization, range, appropriateness of vocabulary, and grammatical accuracy. There are weekly writing activities related to topics covered, such as writing journal entries, letters, e-mails [CR3b], poems, dialogues, abstract writing, creative writing, or writing reactions to articles and lectures.

Culture
The culture of Latin America and Spain will also be studied. Culture is integrated throughout the year with meaningful authentic materials such as literary pieces, newspapers, and auditory pieces.

Materials
Text books:
Abriendo Paso: Gramática ©2007, José M. Diaz
0131660985

- Gramatica Student Edition (hard cover)

Abriendo Paso: Lectura ©2007, José M. Diaz
0131660977
Lectura Student Edition (hard cover)

- AP Spanish, José M. Diaz 0131660942
Student Edition (softcover)

- A bilingual Spanish English dictionary (or have access to online equivalent)

Computer components
Microsoft® Office software, including Word and PowerPoint
A microphone with headphones or speakers

Use of Spanish
This course is designed for and assumes that teachers and students will communicate almost exclusively in Spanish. All the course materials are written in Spanish (with vocabulary and grammar containing some English). Students regularly interact with each other and with the teacher in Spanish in discussion activities. In addition, they conduct interviews of native speakers to practice using the language in real-life settings [CR9]. They also complete spoken interpersonal and presentational homework assignments that are recorded and submitted to teachers as audio files for grading. In addition, teachers give feedback on assignments and tests in Spanish and communicate by e-mail and voice exclusively in Spanish.

Activity Description
The following activities will be incorporated during the course:

- Diagnostic pre- or post-test: This is used to help students assess their mastery and understanding of the material introduced in the unit.
- Instruction: Students study primary instructional online content that teaches new concepts through multimedia and interactivity.
- Discussion: Students discuss topics in an online bulletin-board-style forum. Teachers participate in these discussions as well, and students receive credit for their participation.
- Exam: A test is administered at each semester’s end covering all material from the course.
- Practice: Students answer questions regarding what they have learned. Activities include grammar and vocabulary exercises, reading comprehension, literary analysis, writing tasks, and speaking practice.
- Quizzes: Students take computer-administered and automatically graded formative assessments.
- Review: Review of the material covered in a unit or over a semester is completed.
- Exam/Test: These are administered at each unit’s end covering the material presented in each unit.
## Course Planner

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Semester A, Unit 1: Introduction</th>
</tr>
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<tbody>
<tr>
<td>Students are introduced to the course and the online format. They learn how to create work files, download files, and save work. They learn how to submit assessments and they become familiar with course requirements, discussion requirements, and discussion-based assessments. They also become familiar with teamwork expectations.</td>
<td></td>
</tr>
<tr>
<td>Students learn about the format of the AP Spanish Language Exam and become familiar with the College Board website. They learn about exam scores 0–5. They reflect on their goals and how to reach them.</td>
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<tr>
<td>Students are also introduced to the types of work they will carry out, such as assignments, projects, and assessments.</td>
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<table>
<thead>
<tr>
<th>Unit/Theme/Essential Questions</th>
<th>Semester A, Unit 2: Escuelas del Mundo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Themes</strong></td>
<td></td>
</tr>
<tr>
<td>Desafíos Globales [CR6a], Vida Contemporánea [CR6c], Familias y Comunidades [CR6e]</td>
<td></td>
</tr>
<tr>
<td><strong>Contexts</strong></td>
<td></td>
</tr>
<tr>
<td>Sistema educativo/Tipos de escuelas en Estados Unidos/Los exámenes estandarizados/La integridad académica/Escogiendo una universidad/Actividades extracurriculares</td>
<td></td>
</tr>
<tr>
<td><strong>Essential Questions</strong></td>
<td></td>
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<tr>
<td>¿Cuáles son algunos desafíos globales en cuanto a la educación, y cuáles son algunas posibles soluciones a esos desafíos?</td>
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<tr>
<td>¿Cómo influye la educación en la vida contemporánea?</td>
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</tr>
<tr>
<td>¿Cómo contribuyen los individuos al bienestar de las comunidades?</td>
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</table>

| Sample Learning Activities/Resources | Student-centered questions: ¿Qué características tienen los sistemas educativos en otras culturas? ¿Cómo se pueden comparar los sistemas educativos de dos países hispanohablantes, Argentina y España? ¿Qué diferencias tiene tu propio sistema escolar en relación al sistema educativo de los Estados Unidos? ¿Cuál es el propósito de los exámenes estandarizados, y cuáles son algunos pro y contra en cuanto a su uso? ¿Cuáles son algunos dilemas éticos comunes que enfrentan los estudiantes? ¿Cuáles son algunas diferencias entre la universidad, la escuela técnica y el bachillerato, y cuáles son las ventajas y desventajas de cada tipo de escuela |

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superior? ¿Cuáles son algunas actividades extracurriculares, y por qué es importante participar en ellas?

Students do pre-reading or pre-viewing exercises, read or watch videos, and complete post-reading or post-viewing exercises about the fundamental right to education, differences by country, standardized testing, and academic integrity, including taking notes to summarize important points. [CR2a] & [CR8]

Students play a game to match characteristics of education systems in different countries. [CR8]

Students complete a Venn diagram on differences in the educational systems of Argentina and Spain. [CR8]

Students read a review of the movie *La historia oficial* and complete activities before, during, and after watching the movie. [CR2a], [CR2b] & [CR7]

Students listen to an audio selection about types of schools in the United States and, after writing important points on a graphic organizer, focus on the question of whether they like the type of school they are in or would prefer a different type. [CR8]

Students listen to two Spanish-speaking members of the U.N. debate on education and complete an activity with new vocabulary, to a school principal advising new students about opportunities at school and complete a listening comprehension activity, to three new friends (one Venezuelan, one Mexican, and one Uruguayan) talking about their experiences in school and complete a listening comprehension activity. [CR4a]

Students write an essay about education as a fundamental right, how it is protected, and what its purpose is. They conduct research on websites about writing, MLA, and the Real Academia Española. [CR5b]

Students practice vocabulary related to education, advantages and disadvantages of different types of schools, standardized exams, academic honesty and plagiarism, choosing a college or university, and extracurricular activities. [CR4b]

Students practice grammar related to verbs (person and number, active and passive voice, indicative v. subjunctive mood, and tense;
conjugation, auxiliary verbs, regular and irregular verbs; future tense; reflexive verbs and pronouns) and adjectives (comparatives and superlatives), completing formative assessments on these topics. [CR4b]

Students use the embedded recording tool to practice presentational speaking about these topics: the right to education, outstanding characteristics of the education system in different countries, recommendations to ensure academic integrity, requirements for studying for a career, a principal’s speech to students at a school, and on some people’s extracurricular activities. [CR5a]

Students write an outline of ideas about what educational and career path they will take in the future. [CR6c]

Students begin writing in *Mi voz*, a journal in which they will write informally throughout the course and include research results from authentic sources (e.g., radio station, online newspaper) on the topics being written about, and which they will share with other students in an informal interpersonal writing exercise. [CR3b]

<table>
<thead>
<tr>
<th>Assessments</th>
<th>Spoken Interpersonal Communication:</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>In pairs, students discuss the multimedia brochure they are preparing to present on types of schools in the U.S. for Hispanics or immigrants who want to study in this country. [CR3a]</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Written Interpersonal Communication</th>
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</thead>
<tbody>
<tr>
<td>Students write a letter to their grandmother, explaining plans to study computer science and pursue a career in that field instead of being a lawyer like their father, and promising to talk about it at her 75th birthday party. [CR3b]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Audio, Visual, and Audiovisual Interpretive Communication</th>
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</thead>
<tbody>
<tr>
<td>Students listen to a dialogue between two people about the</td>
</tr>
</tbody>
</table>
education systems of Germany and Argentina and answer questions about them. [CR2a], [CR4a] & [CR8]

In pairs, students create and present a multimedia brochure (including photographs, interactive images, sound, and color) on types of schools in the U.S. for Hispanics or immigrants who want to study in this country. [CR5a] & [CR5b]

**Written and Print Interpretive Communication:**

Students conduct research and create a list of resources to use on a project about their education in the future, including information on extracurricular activities in college or the community. [CR4b] & [CR5b]

**Spoken Presentational Communication**

Students prepare an oral presentation in relation to reading and listening passages focusing on these questions: ¿Qué opinas del uso de los exámenes estandarizados para la admisión a la educación superior en los Estados Unidos? ¿Qué importancia deben tener los exámenes estandarizados para la admisión a la educación superior en los Estados Unidos? [CR5a]

**Written Presentational Communication:**

Students write an essay in which they compare and contrast the education system of the United States (or country where they are from) with that of Argentina, focusing on these questions: Is education a fundamental right? How is the right to education protected? What is the purpose of education systems? [CR5b]

Students write an essay in which they express their opinions on what the consequences should be when a classmate violates the principles of academic integrity, after reading and listening to passages on the topic. [CR5b]

<table>
<thead>
<tr>
<th>Unit/Theme/Essential Questions</th>
<th>Semester A, Unit 3: Introducción a la literatura: El cuento y la poesía</th>
</tr>
</thead>
<tbody>
<tr>
<td>Themes</td>
<td>Desafíos Globales [CR6a]</td>
</tr>
<tr>
<td></td>
<td>Vida Contemporánea [CR6c]</td>
</tr>
<tr>
<td>Identidades Personales y Públicas [CR6d]</td>
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<tr>
<td>Familias y Comunidades [CR6e]</td>
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<tr>
<td>Belleza y Estética [CR6f]</td>
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</tbody>
</table>

**Contexts**
- Introducción a la literatura/El drama hispanoamericano/Periódicos y revistas/Las artes/Las artes: Los muralistas/Las artes: Baile y música

**Essential Questions**
- ¿Cómo influyen los productos culturales, las prácticas y las perspectivas de la gente en la vida contemporánea, localmente y globalmente?
- ¿Cómo contribuyen los individuos a través de la literatura al bienestar de las comunidades?
- ¿Cómo influyen los ideales de la belleza y la estética en la vida cotidiana?
- ¿Cómo las artes desafían y reflejan las perspectivas culturales?

**Sample Learning Activities/Resources**
- Student-centered questions: ¿Cómo puedes relacionar un cuento corto con algo que hayas experimentado en tu vida? ¿Cuáles son algunas novelas y dramas importantes de la literatura hispanoamericana? ¿Qué características tienen algunos de los periódicos y revistas más populares en español? ¿Cuáles son y qué características tienen algunas formas y expresiones artísticas de la cultura hispanoamericana, y cuáles son las influencias de varios artistas? ¿Cómo los artistas se inspiran en el trabajo de otros artistas para completar sus propias obras? ¿Cuáles son algunas expresiones artísticas y formas de cultura latina? ¿Qué influencias africanas hay en la música y el baile del Caribe?
- Students read “El dinosaurio” by Augusto Monterroso, and analyze the plot, theme, setting, time, ambiguity, and tone. [CR2c] & [CR4b]
- Students read “El Apocalipsis” by Marco Denevi, answer self-check comprehension questions, and analyze themes. [CR2c] & [CR4b]
- Students read a poem about poetry to think about poems and songs, and then read about what poetry is, its elements, literary movements, the twentieth century, and Latin American poets. [CR2c] & [CR4b]
Students hear and read the poem “Balada de los dos abuelos” and analyze the symbols that relate to each grandfather, the connection or conflict between them, and whom the poet identifies with. They also read about author Nicolás Guillén and about the ballad. [CR2c], [CR4a] & [CR4b]

Students practice audio interpretive communication by listening to the dialogue of a situation in a classroom with a professor teaching about *realismo mágico*, completing a formative assessment on the ideas and themes of the dialogue. [CR4a]

Students research Miguel de Cervantes Saavedra and his work *El ingenioso hidalgo Don Quijote de la Mancha*. They read an outline version of the history of Latin American literature, background information on the Nobel Prize in literature, a fragment from Gabriel García Márquez’s *Cien años de soledad*, the short story “La carta” de José Luis González and an analysis of it, and complete self-checking formative assessments on the readings. [CR2c] & [CR4b]

Students listen to audio text and read print text about el canillita, a common local character in Hispanic towns and cities. [CR4a] & [CR7]

Students practice audio interpretive communication by listening to an interview of a well-known singer and composer. [CR4a]

Students conduct a survey in Spanish of people on their magazine-reading and news-sourcing habits, practicing interpersonal writing. [CR3a] & [CR9]

Students read an authentic online newspaper article about the use and status of Spanish in the U.S. and about Walmart and the Hispanic market. [CR2b]

Students read and view video on the topic of analyzing a work of art (line, volume, space, color, light, composition), practice visual interpretive communication by reflecting on sample paintings, conduct research on the Colombian artist Fernando Botero, and compare his work to that of another visual artist. [CR4a], [CR4b] & [CR7]

Students read about Pablo Picasso and his painting *Guernica*, and about Diego de Velázquez and his work. Reading about Octavio Ocampo comes with vocabulary and comprehension practice.
<table>
<thead>
<tr>
<th>Students read a comparison of the styles of Octavio Ocampo and Salvador Dali. [CR4b] &amp; [CR7]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students complete a Venn diagram on two murals by Latin American painters. Then they practice written interpretive communication by reading about three famous Mexican muralists. They read about Latin American music, dance, and religion, and the African contribution to Hispanic culture. [CR7], [CR4b] &amp; [CR8]</td>
</tr>
<tr>
<td>They review the format of the AP Spanish Language and Culture exam, and project the steps necessary to prepare for it. [CR4b]</td>
</tr>
<tr>
<td>Students continue writing in <em>Mi voz</em>, the informal journal with reflections on the topics or ideas in the unit, including further research to enhance description of their favorite music, dance, or art, and they share their writing for peer review and comments in a version of written interpersonal communication. [CR3b]</td>
</tr>
<tr>
<td>Students practice vocabulary related to literature, short story, plot, narrator, fiction, poetry, art, race, Octavio Ocampo, the muralists, the canillita, the Hispanic food market, bomba of Puerto Rico, and cumbia of Colombia, completing formative assessments on these topics. [CR4b] &amp; [CR7]</td>
</tr>
<tr>
<td>Students practice grammar topics related to reflexive verbs, direct and indirect objects (completing activities on a 21-slide interactive slideshow presentation), prefixes, the subjunctive (with link to interactive formative assessment), the imperfect, the preterite, the future, and adverbs, completing formative assessments on these topics. [CR4b]</td>
</tr>
<tr>
<td>Students use the embedded recording tool to practice presentational speaking about these topics: what a narrative work is, what some literary styles are, what the “Boom” was and why it was important, an analysis of the poem “Balada de los dos abuelos,” why Miguel de Cervantes Saavedra is important, how some characteristics of realism and avant-garde manifest themselves in literature, who the character of “el canillita” is and when the holiday devoted to him occurs, the similarities and differences between two murals, and the influence of African culture on society. [CR5a], [CR7] &amp; [CR8]</td>
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<tr>
<td>Assessments</td>
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<td>---------------------------------------------------------</td>
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<tr>
<td><strong>Spoken Interpersonal Communication</strong></td>
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<td><strong>Written Interpersonal Communication</strong></td>
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<td><strong>Audio, Visual, and Audiovisual Interpretive Communication</strong></td>
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<td><strong>Written and Print Interpretive Communication</strong></td>
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<td><strong>Spoken Presentational Communication</strong></td>
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<td><strong>Written Presentational Communication</strong></td>
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<tr>
<td>Unit/Theme/Essential Questions</td>
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<td>Themes</td>
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<thead>
<tr>
<th>Identidades Personales y Públicas [CR6d]</th>
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<tr>
<td>Familias y Comunidades [CR6e]</td>
</tr>
<tr>
<td>Belleza y Estética [CR6f]</td>
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</tbody>
</table>

**Contexts:**
La juventud y sus valores/La juventud y la mayoría de edad/La juventud, la familia y las relaciones/La graduación

**Essential Questions:**
- ¿Cómo definen los individuos y las sociedades a la juventud y sus valores?
- ¿Cómo se expresan los distintos aspectos de la identidad en diversas situaciones?
- ¿Cómo se desarrolla la identidad de una persona a lo largo del tiempo?
- ¿Cómo influyen los ideales de la belleza y la estética en la vida cotidiana?

**Sample Learning Activities/Resources**

<table>
<thead>
<tr>
<th>Student-centered questions: ¿Cuales son algunos diferentes aspectos de la vida de los jóvenes en dos culturas? ¿Cuáles son los valores de los jóvenes? ¿Qué factores afectan a los jóvenes hoy e impactan sus oportunidades en la vida? ¿Cómo se comparan las celebraciones de alcanzar la mayoría de edad en dos culturas diferentes? ¿Cómo se comparan la vida familiar y las relaciones a lo largo de las generaciones en los Estados Unidos con varias culturas? ¿Cuáles son algunos usos apropiados de la comunicación verbal y no verbal? ¿Cuáles son algunos caminos hacia unas carreras profesionales en otras culturas? ¿Qué oportunidades de carreras profesionales que cruzan culturas hay en las universidades?</th>
</tr>
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</table>

Students practice audiovisual interpretive communication by listening to video of various young people describing themselves and their lives in relation to the above questions. Questions for reflection are provided. [CR4a]

Students read the authentic article “Así piensan nuestros jóvenes,” and complete a self-checking underlining and note-taking exercise, and then they read a second authentic article “Los jóvenes españoles son rebeldes, marchosos y comunistas” and complete an underlining and note-taking exercise. They will then use these notes to compare Mexicans and Spaniards. [CR2b] & [CR8]

Students read the poem “Canción de otoño en primavera” by Rubén Darío and reflect on its themes and ideas. [CR2c] & [CR4b]
Students read a slideshow about celebrations of people reaching adulthood in Japan, Israel, Mexico, Argentina, Cuba, Dominican Republic, Puerto Rico, and the United States. There are links to visuals in the form of photographs. [CR4a], [CR4b] & [CR7]

Students complete a KWL graphic organizer about *quinceañeras*, read an article about the history of the celebration, compare how the *quinceañera* is celebrated in Mexico and Argentina, read an article from the socials column of an online newspaper, hear audio about the family in Arab cultures, read about nonverbal communication and idiomatic expressions, and read on a website about etiquette and protocol. [CR4a], [CR4b], [CR2b], [CR5b] & [CR8]

Students read articles about stereotypes of Hispanic people and cultural differences that enrich the culture; hear and read Nicolás Guillén’s poem “Balada de los dos abuelos” and analyze its structure and themes; and practice presentational writing about the difference between a job and a career. [CR7], [CR4a], [CR4b], [CR2c] & [CR5b]

Students continue writing in Mi voz, the journal for informal interpersonal writing practice, on the topic of study abroad. Then they exchange for peer review and comments. [CR3b]

Students practice vocabulary related to describing Mexican and Spanish young people; differences between childhood, youth, adolescence, adulthood, and old age; icons attractive to young people; comparison of attitudes and perspectives of Mexican and Spanish young people; celebrations of reaching adulthood; graduation; and the difference between a job and a career, completing formative assessments on many of these topics. CR4b] & [CR7]

Students read about youth and being young, the poem “Canción de otoño en primavera” by Rubén Darío, and access articles and audio about *quinceañera* celebrations, jobs, and careers. A variety of self-checking formative assessment formats are provided. [CR2b], [CR2c], [CR4a] & [CR7]

Students practice grammar topics related to the verb *ser*, the verb *estar*, reflexive verbs, the preterite and the imperfect, conjunctions, future tense, conditional tense, present subjunctive mood, and
complete formative assessments on these topics. [CR4b]

Students use the embedded recording tool to practice presentational speaking about these topics: some values of young people in Mexico and Spain, Rubén Darío and his poem “Canción de otoño en primavera,” characteristics of a quinceañera in Mexico and in Argentina, extended families and their activities, and use of the future tense. [CR5a], [CR2c] & [CR8]

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<tr>
<th>Assessments</th>
<th>Spoken Interpersonal Communication</th>
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<tbody>
<tr>
<td></td>
<td>Students complete simulated conversation about family life and friendships. [CR3a]</td>
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<tr>
<th>Assessments</th>
<th>Written Interpersonal Communication</th>
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<tr>
<td></td>
<td>Students write an e-mail to a friend who has just celebrated her quinceañera and whose party they have just gone to. They greet her, congratulate her, express their opinion about the party, and wish her luck in the new stage of her life. [CR3b]</td>
</tr>
<tr>
<td></td>
<td>Students write a letter to their grandparents greeting them, explaining their decision to attend the college they have chosen, mentioning the connection between a job they held in high school and their new academic career, asking for advice on the career, and saying goodbye. [CR3b]</td>
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<tr>
<th>Assessments</th>
<th>Written and Print Interpretive Communication</th>
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<tr>
<td></td>
<td>Students read on the topic of young people’s friendships and answer comprehension questions about it. [CR4b]</td>
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<td></td>
<td>Students read passages about education in different countries and answer reading comprehension questions about what they have read. [CR4b]</td>
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<tr>
<th>Assessments</th>
<th>Spoken and Written Presentational Communication</th>
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<tr>
<td></td>
<td>Students write and present a multimedia outline proposal for a career day event at their school. [CR5a] &amp; [CR5b]</td>
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<tr>
<th>Unit/Theme/Essential Questions</th>
<th>Semester A, Unit 5: La tecnología en el pasado</th>
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<tbody>
<tr>
<td>Themes</td>
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</table>
### Desafíos Globales [CR6a]

**Ciencia y Tecnología [CR6b]**

### Contexts

La tecnología en el pasado/La tecnología en China y Japón/La tecnología en Estados Unidos/La tecnología en mi vida/La tecnología en mi futuro

### Essential Questions

¿Cuáles son los desafíos tecnológicos que enfrentan las sociedades del mundo, cuáles son los orígenes de esos desafíos y cuáles son algunas posibles soluciones a esos desafíos?

¿Qué impacto tiene el desarrollo científico y tecnológico en nuestras vidas?

¿Qué factores han impulsado el desarrollo y la innovación en la ciencia y la tecnología?

### Sample Learning Activities/Resources

**Student-centered questions:** ¿Cuáles son algunos avances tecnológicos significativos de los últimos 100 años, y qué efectos han tenido en la vida cotidiana? ¿Cómo son las situaciones tecnológicas actuales de China y Bolivia, y de qué manera es la tecnología relativa a la cultura? ¿Cómo se compara la tecnología de Japón con la de otros países estudiados? ¿Qué control tienen los gobiernos en la tecnología de ciertos países? ¿De qué manera los términos tecnológicos están impactando las culturas y el lenguaje? ¿Qué son las mejores prácticas y la etiqueta para usar con la tecnología personal? ¿Cómo se puede predecir el uso del contexto tecnológico en diferentes áreas?

Students practice written interpretive communication by reading an article about Mexican streetcars, followed by a comprehension activity. [CR4b]

Visual and audiovisual interpretive communication is practiced by seeing and hearing about different inventions, followed by a self-checking formative assessment. [CR4a]

Students read and hear about communication in the past, and take down a Spanish-speaker’s answers to a questionnaire about their use of technology, to be followed by an oral presentation of the results. [CR4a], [CR4b], [CR9] & [CR5a]

Students practice visual interpretive communication, viewing and describing images of Chinese and Bolivian objects. [CR4a]
<table>
<thead>
<tr>
<th>Students read about technology in China and Bolivia, and then conduct a web search for more information. They read about technological challenges in Bolivia, and then conduct a web search for more information. They consider the issue of accessibility to technology and complete an activity about it. [CR4b] &amp; [CR8]</th>
</tr>
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<tbody>
<tr>
<td>Students conduct a voice discussion in which students’ recordings of their opinions are interchanged and commented on, for interpersonal speaking practice. [CR3a]</td>
</tr>
<tr>
<td>Students practice written interpretive communication by reading texts about technology in Japan; then practice audio interpretive communication by listening as they complete a graphic organizer of ideas about using technology of the future. [CR4b] &amp; [CR4a]</td>
</tr>
<tr>
<td>Students conduct research about technological advances in the U.S.; complete a Y-diagram to compare and contrast different inventions’ impact on culture and language; read about technical vocabulary in English and Spanish; consider what they would save in a time capsule; read about new forms of technology; write recommendations for online privacy, security, and netiquette; write a description of an invention they predict for the future; practice the order of sentences in paragraphs, and complete an informational chart about social media. [CR4b] &amp; [CR9]</td>
</tr>
<tr>
<td>Students make and write predictions for the technology of the future and hear and read texts on technology of the future. [CR4a], [CR4b] &amp; [CR9]</td>
</tr>
<tr>
<td>Students continue the informal journal Mi voz by writing on their opinions about the influence of technology on young people. This journal entry is exchanged with other students, who leave their written questions and comments. [CR3b]</td>
</tr>
<tr>
<td>Students practice vocabulary related to modes of transportation, technology in the past, innovations, use of technology, comparison of use of technology between the U.S. and Japan, neologisms, netiquette, predictions about future technologies, and types of paragraphs, completing formative assessments on several of these topics. [CR4b] &amp; [CR8]</td>
</tr>
<tr>
<td>Students practice grammar topics related to present tense, present perfect and past perfect tenses (with contextualized fill-in-the-blank</td>
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APPENDIX A.2.H Advanced Placement® Course Guides

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self-checking exercise), the verb haber, conjunctions, preterite tense, future tense, regular and irregular verbs, subject-verb agreement, the subjunctive, the paragraph, types of paragraphs, the topic sentence, the supporting sentences, and the closing sentence, completing formative assessments on several of these topics. [CR4b]

Students view video, read, and hear passages about electric streetcars in Mexico, present-day China, present-day Bolivia and its technology challenges, technology in Japan, Japanese innovations, technology culture, the difference between fact and opinion, new technology, how to protect your computer, how to protect your identity online, how to otherwise protect yourself online, and predictions of how technology will change people’s lives in 50 years. [CR2a], [CR7] & [CR8]

Students use the embedded recording tool to practice presentational speaking about these topics: methods of communication since the Morse code was invented, some important Chinese inventions, how technology has influenced the ways people communicate, a Japanese invention that “translates” the barking of dogs to human language, the politics of communication, advantages of smartphones, predicting technological change for the next 100 years, and summarizing types of paragraphs. [CR5a] & [CR7]

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<tr>
<th>Assessments</th>
<th>Spoken Interpersonal Communication</th>
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<tr>
<td></td>
<td>Interview an older family member or family friend about their use of technology. [CR3a]</td>
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<tr>
<td></td>
<td>Students conduct a voice discussion in which students’ recordings of their opinions are interchanged and commented on. [CR3a]</td>
</tr>
<tr>
<td></td>
<td>Students participate in a simulated conversation with a foreign dignitary regarding his or her country and the use of modern technology. [CR3a]</td>
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<th></th>
<th>Written Interpersonal Communication</th>
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<tr>
<td></td>
<td>Students write a letter to their senator, greeting them, explaining the desire to invest in mining in Bolivia and why it is important,</td>
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</table>
clarifying what improvements in Bolivia this money would bring, thanking them, and saying goodbye. [CR3b] & [CR7]

Students write an e-mail to the proposals committee of next year’s technology convention in Geneva, and describe a product to help prevent identity theft: what it is, its advantages, its cost, changes it will produce in the future, and finally say goodbye. [CR3b]

Students write an announcement for the school newspaper regarding the dangers of using a cell phone while driving. [CR3b]

Students write a post card about the use of cell phones in modern everyday life. [CR3b]

Students write an e-mail to the school principal concerning the use of cell phones at school during the school day. [CR3b]

**Spoken Presentational Communication**

Students prepare a presentation on the impact of technology on young people, expressing their views in relation to two articles they have read about the topic. [CR5a] & [CR2b]

**Written Presentational Communication**

Students prepare a comparison of functions of social media sites that can help in learning a language. [CR5b]

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<th>Unit/Theme/Essential Questions</th>
<th>Semester A, Unit 6: Historia de los medios de comunicación</th>
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<td>Desafíos Globales [CR6a]</td>
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<td>Ciencia y Tecnología [CR6b]</td>
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<td></td>
<td>Vida Contemporánea [CR6c]</td>
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<tr>
<td></td>
<td>Identidades Personales y Públicas [CR6d]</td>
</tr>
<tr>
<td><strong>Contexts</strong></td>
<td>México y Puerto Rico/China y los países árabes/Los hispanos en los Estados Unidos y los medios/Los anuncios publicitarios y las comunicaciones/La publicidad y yo</td>
</tr>
<tr>
<td><strong>Essential Questions</strong></td>
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</tbody>
</table>
¿Cuáles son algunos desafíos en cuanto a la comunicación que enfrentan las sociedades del mundo?
¿Cómo influyen los medios de comunicación en la vida contemporánea?
¿Cómo influye la comunicación en la identidad de una persona o un pueblo?

Sample Learning Activities/Resources

Student-centered questions: ¿Qué características tienen algunos medios de comunicación, y cómo han evolucionado? ¿Cómo nos afecta la publicidad? ¿Qué efectos tiene la censura en China y en los países árabes? ¿Cuáles son las influencias de los hispanohablantes en la radio, el cine y la televisión en los Estados Unidos? ¿Qué estereotipos de los hispanohablantes se ven en el cine y la televisión? ¿Cuáles son algunas formas en que los medios publicitarios se enfocan en ciertos grupos, especialmente en los jóvenes? ¿Cómo la publicidad puede moldear los valores en la juventud? ¿De qué manera la publicidad afecta tu forma de elegir las cosas?

Students complete a graphic organizer on means of communication and answer questions about which is their favorite and about how communication will be in the future. [CR4b]

Students read about freedom of the press, then go on to ask Spanish speakers questions to complete a survey on TV and Internet use. [CR2a], [CR3a] & [CR9]

Students read about communications in Mexico and Puerto Rico, and then go on to complete a graphic organizer with ideas about the advantages of TV news versus news on the Internet. [CR4b], [CR2a] & [CR7]

Students read about the nature of news and then go on to play a game matching themes with the nature of their news value. [CR4b]

Students research the two Hispanic reporters Jorge Ramos Ávalos and María Celeste Arrarás, and complete a Venn diagram comparing and contrasting them. Then they compare these to Katie Couric and Matt Lauer. [CR4b] & [CR8]

Students practice audio interpretive communication by listening to a podcast interview of María Celeste Arrarás on topics related to journalism and the news. [CR4a]

Students complete a graphic organizer with their ideas on how publicity affects their lives, then listen to an interview about the
2008 presidential campaign and the influence that publicity had on it, before completing self-checking comprehension exercises. [CR4a] & [CR4b]

Students read about censorship in China and in the Arab world and then complete a Venn diagram comparing and contrasting the effects of censorship on citizens. Students go on to read about censorship in Cuba and in Spain during the time of Franco and then complete self-checking comprehension exercises. [CR4b], [CR2b], [CR5b] & [CR8]

Students watch a video about censorship and complete pre-viewing, during-viewing, and post-viewing activities. [CR2a]

Students play a game to find out how much they know about Hispanics in the media. Then they complete a table on their opinions of Hispanic music. [CR4b]

Students listen to an article about Internet piracy, take notes, and complete questions at the end. [CR2a]

Students read about Rita Moreno and José Ferrer, two important Hispanic actors in the U.S. Then they complete a comprehension activity. [CR4b] & [CR7]

Students view the movie Bajo la misma luna. Then they complete an activity putting the elements of the plot in the correct order. [CR2a] & [CR4a]

Students consider Dora the Explorer and other bilingual television programming and then complete an opinion chart and a comprehension activity. [CR4b]

Students listen to and read a text about how publicity appeals to viewers’ emotions. Then they go on to hear about how a company plans an advertising campaign to promote their product, jeans for young people. Students complete an activity while listening and after listening. [CR2a], [CR4a] & [CR4b]

Students consider how the images they see in advertising influence them. Then they go on to read about advertising techniques, completing a comprehension activity on the topic. [CR2b] & [CR4b]

Students conduct a survey of other students on the influence of fast
<table>
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<tr>
<th>Assessments</th>
<th>Audio, Visual, and Audiovisual Interpretive Communication</th>
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<tbody>
<tr>
<td>Students listen to a narrative about telenovelas on Mexican television and complete listening comprehension questions about it. [CR4a] &amp; [CR7]</td>
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<tr>
<td>Students prepare and present a multimedia presentation, including video, comparing two journalists: Jorge Ramos Ávalos and Matt Lauer, or María Celeste Arrarás and Katie Couric. [CR4a], [CR4b] &amp;</td>
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</table>
Students view a video ad for a supermarket in Chinese and then create a script in Spanish to match the ad. [CR4a] & [CR8]

**Written and Print Interpretive Communication**

Students complete a semester exam containing reading comprehension exercises on topics relating to communications and advertising. [CR4b]

**Spoken Presentational Communication**

Students prepare an oral presentation on the topic “¿Cómo afectan nuestra vida los medios de comunicación?” in relation to ideas from a print article and a listening passage. [CR5a]

Students prepare an oral presentation on the topic “Explica si tus costumbres de gastar dinero han sido influenciadas o no por la publicidad” in relation to ideas from a print article and a listening passage. [CR5a]

**Written Presentational Communication**

Students write an essay on the topic of the influence of publicity and advertising in everyday life, in relation to ideas from print and audio sources. [CR5b]

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<th>Semester B, Unit 1: El medio ambiente en España y China</th>
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<td>Desafíos Globales [CR6a]</td>
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<tr>
<td><strong>Vida Contemporánea</strong></td>
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<tr>
<td><strong>Contexts</strong></td>
<td>El medio ambiente en España y China/El medio ambiente en India/El medio ambiente en los Estados Unidos/El reciclaje alrededor del mundo/El reciclaje y yo</td>
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</tbody>
</table>
| **Essential Questions**       | ¿Cuáles son los desafíos del medio ambiente que enfrentan las sociedades del mundo?  
¿Cuáles son los orígenes de esos desafíos, y cuáles son algunas posibles soluciones a esos desafíos? |
<table>
<thead>
<tr>
<th>Sample Learning Activities/Resources</th>
<th>¿Cómo influyen los problemas del medio ambiente en la vida contemporánea?</th>
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<tbody>
<tr>
<td>Student-centered questions: ¿De qué maneras la gente en España y en China confronta los asuntos actuales del medio ambiente en su país? ¿Cómo el medio ambiente ha tenido un gran impacto en las vidas de los españoles y de los chinos? ¿Cuál es el mayor desafío ambiental de India, y cuáles son algunas causas, soluciones y consecuencias de este problema ambiental? ¿Cuáles son algunos problemas ambientales de los Estados Unidos, y qué soluciones pueden tener estos problemas ambientales? ¿Cuál es el reciclaje y cuáles son las razones para reciclar? ¿Cuáles son los impactos ambientales de reciclar o no reciclar? ¿Cómo son las formas en que se recicla en diferentes lugares del mundo? ¿Cuáles son las destrezas del español se pueden usar para obtener información y perspectivas de sus hablantes? ¿Cómo se comparan las formas de reciclaje en tu comunidad y en otras comunidades? ¿Cómo se expresan opiniones sobre el medio ambiente y qué estrategias de conservación usan algunos países hispanohablantes?</td>
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<tr>
<td>Students read articles about environmental issues in Spain and China, and complete self-checking comprehension activities before comparing the two. Then students read about environmental challenges in India and role-play being the Indian Minister of Forests and the Environment communicating with the U.S. Secretary of State, presenting current environmental issues. Then they go on to a pre-reading activity predicting factors causing the drought in India and possible solutions, before reading the article on the topic and completing a self-checking comprehension. Students read further sources on the consequences of the drought and possible solutions to the problem. [CR2b], [CR4b] &amp; [CR8]</td>
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<tr>
<td>Students write an essay about consequences of the drought and possible solutions to the problem. [CR5b]</td>
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<tr>
<td>Students work in groups to study environmental issues in the United States and present to the class. Groups hear and read reports on the Environmental Protection Agency website to research issues of water, air, garbage, and climate change. [CR8]</td>
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</tr>
<tr>
<td>Students view video, read, and hear passages about the environment in Spain, China, Puerto Rico, India, and the United states; drought in India; water, air, climate, and recycling; and complete pre-, during-, and post-viewing reading, and/or listening activities. [CR2a], [CR2b], [CR4a], CR4b] &amp; [CR8]</td>
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</tbody>
</table>
Students read and conduct further research on recycling in different countries, including Spain, Puerto Rico, and Mexico and Central America. Students complete a Venn diagram comparing and contrasting the recycling situation in these three parts of the world. Then they create a brochure, including text, photographs, and the unit vocabulary and grammar, on these issues. [CR2b], [CR4b], [CR8] & [CR5b]

Students work in groups to create a multimedia presentation outlining a recycling program for their community, focusing on electronic waste. [CR5a] & [CR5b]

Students complete a chart comparing and contrasting forms of recycling in their community, a large state, and a small city. [CR4b]

Students read about and practice reading strategies: activating prior knowledge, predicting, making connections, drawing conclusions, forming questions, rereading, looking up vocabulary, rephrasing and restating aloud, and creating mental images. [CR4b]

Students read about and conduct further research on factors influencing recycling and forms of recycling in the United States. [CR2b] & [CR8]

 Students practice vocabulary related to pollution and the environment, drought, trash, and recycling, and deducing and predicting, completing formative assessments on several of these topics. [CR4b]

Students practice grammar topics related to the present subjunctive, past participles, the imperfect tense, the future tense, the conditional tense in si-clauses, the future perfect and conditional perfect, and the indicative mood compared to the subjunctive mood, completing formative assessments on these topics. [CR4b]

Students use the embedded recording tool to practice presentational speaking about these topics: environmental issues in Spain, what Greenpeace is and what it promotes, sentences for vocabulary practice, the 2008 environmental disaster in Tennessee compared to the Exxon Valdez disaster, and how to reuse, reduce, and recycle. [CR5a], [CR7] & [CR8]
<table>
<thead>
<tr>
<th>Assessments</th>
<th>Spoken Interpersonal Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students create and present a multimedia presentation on creating a reuse</td>
<td>Students create and present a multimedia presentation on creating a reuse and recycle program, including video of a simulated interview with their governor or mayor and a 60-second television commercial promoting the program. [CR3a] &amp; [CR5a]</td>
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<tr>
<td>recycle program, including video of a simulated interview with their</td>
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<tr>
<td>governor or mayor and a 60-second television commercial promoting the</td>
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<tr>
<td>program. [CR3a] &amp; [CR5a]</td>
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</tr>
<tr>
<td>Audio, Visual, and Audiovisual Interpretive Communication</td>
<td>Audio, Visual, and Audiovisual</td>
</tr>
<tr>
<td>Students listen to a narrative about environmental issues around the</td>
<td>Interpretive Communication</td>
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<tr>
<td>world and complete listening comprehension activities. [CR4a]</td>
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<tr>
<td>Students listen to a dialogue about environmental problems and</td>
<td>Students listen to a dialogue about environmental problems and complete listening comprehension activities. [CR4a]</td>
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<td>complete listening comprehension activities. [CR4a]</td>
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<tr>
<td>Written and Print Interpretive Communication</td>
<td>Written and Print Interpretive</td>
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<tr>
<td>Students read an incomplete table with descriptions of environmental</td>
<td>Communication</td>
</tr>
<tr>
<td>problems and possible solutions, and write in missing information or</td>
<td>Students read an incomplete table with descriptions of environmental problems and possible solutions, and write in missing information or ideas. [CR4b]</td>
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<tr>
<td>ideas. [CR4b]</td>
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</tr>
<tr>
<td>Spoken and Written Presentational Communication</td>
<td>Spoken and Written Presentational</td>
</tr>
<tr>
<td>Students research, create, and present a multimedia presentation</td>
<td>Communication</td>
</tr>
<tr>
<td>outlining the creation of a recycling/reusing program for their</td>
<td>Students research, create, and present a multimedia presentation outlining the creation of a recycling/reusing program for their community and promoting the plan by means of a simulated interview with a government official, a television or radio announcement, or an original song. [CR3a], [CR5a] &amp; [CR5b]</td>
</tr>
<tr>
<td>community and promoting the plan by means of a simulated interview with</td>
<td>community and promoting the plan by means of a simulated interview with a government official, a television or radio announcement, or an original song. [CR3a], [CR5a] &amp; [CR5b]</td>
</tr>
<tr>
<td>their governor or mayor and a 60-second television commercial promoting</td>
<td></td>
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<tr>
<td>the program. [CR3a] &amp; [CR5a]</td>
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</tr>
<tr>
<td>Written Presentational Communication</td>
<td>Written Presentational Communication</td>
</tr>
<tr>
<td>Students write an essay on the topic “¿Qué retos enfrentan los países</td>
<td>Students write an essay on the topic “¿Qué retos enfrentan los países mencionados y cuáles son las soluciones a estos retos?” in relation to information from print and audio sources. [CR5b]</td>
</tr>
<tr>
<td>mencionados y cuáles son las soluciones a estos retos?” in relation to</td>
<td>Students write an essay on the topic “¿Qué papel juega Greenpeace en algunos países hispanohablantes?” in relation to information from print and audio sources. [CR5b]</td>
</tr>
<tr>
<td>information from print and audio sources. [CR5b]</td>
<td>Students write an essay on the topic “¿Qué problemas existen en cuanto a la contaminación del agua y su acceso y control en el futuro?” in relation to information from print and audio sources. [CR5b]</td>
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<td>Students write an essay on the topic “¿Cuál es el efecto de alguna</td>
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<tr>
<td><strong>Unit/Theme/Essential Questions</strong></td>
<td><strong>Semester B, Unit 2: La sociedad global</strong></td>
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<tr>
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</tr>
<tr>
<td><strong>Themes</strong></td>
<td>Desafíos Globales [CR6a]</td>
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<td></td>
<td>Vida Contemporánea [CR6c]</td>
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<td></td>
<td>Identidades Personales y Públicas [CR6d]</td>
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<tr>
<td></td>
<td>Familias y Comunidades [CR6e]</td>
</tr>
<tr>
<td><strong>Contexts</strong></td>
<td>La sociedad global/La sociedad global: España/La sociedad global y los Estados Unidos/La historia de la emigración/La migración a los Estados Unidos/La inmigración</td>
</tr>
<tr>
<td><strong>Essential Questions</strong></td>
<td>¿Cuáles son los desafíos en cuanto a la sociedad global y la inmigración que enfrentan las sociedades del mundo? ¿Cuáles son los desafíos de la vida contemporánea con respecto a la inmigración? ¿Cómo influyen la lengua y la cultura en la identidad de una persona? ¿Cómo contribuyen los individuos al bienestar de las comunidades?</td>
</tr>
<tr>
<td><strong>Sample Learning Activities/Resources</strong></td>
<td>Student-centered questions: ¿Cuáles son algunos factores que hacen una sociedad más global? ¿Cuáles son algunas creencias culturales y cómo se reflejan en el folclore? ¿En qué manera se contrastan los valores y creencias de una cultura hispanohablante con la cultura estadounidense? ¿Cómo es la historia de la migración? ¿Cómo es la historia de la migración a los Estados Unidos y las razones por las cuáles la gente migra? ¿Cuál es la importancia de saber otro idioma? ¿Quiénes son los escritores Jorge Luis Borges, Julia Álvarez y Junot Díaz, y cuáles son algunas características de sus obras?</td>
</tr>
<tr>
<td></td>
<td>Students play an interactive game as an introduction to issues of globalization. They read an introduction on the topic and complete a comprehension activity. They start completing a KWL organizer about the topic of globalization. [CR4b]</td>
</tr>
<tr>
<td></td>
<td>Students read about factors that influence globalization and complete a self-checking comprehension activity, followed by</td>
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</table>
speaking practice. [CR4b] & [CR3a]

Students read about the culture and economy of Mexico and Japan as factors influencing globalization and complete a comprehension activity. [CR4b] & [CR8]

Students compare two argumentative paragraphs about how the Internet has helped globalization and then choose a thesis that they justify by writing reasons on a graphic organizer. [CR5b]

Students finish completing the KWL activity and practice speaking about what they have learned. [CR4b] & [CR5a]

Students use a graphic organizer to write reasons justifying a thesis either in favor of or against multinational companies. [CR5b] & [CR8]

Students read about folklore in Spain and consider the different types of folklore: superstition, joke, tongue twister, legend, or riddle. They read about flamenco as a popular art form, and complete comprehension activities. [CR4b] & [CR7]

Students read about oral literary traditions in Spain and in American indigenous cultures, including the Aztecs, Mayas, Incas, and Navajo. They complete comprehension activities and conduct further research on the Internet. [CR4b], [CR7] & [CR8]

Students complete a pre-reading game on American vs. Hispanic attitudes and beliefs, and then complete a graphic organizer categorizing attitudes and beliefs by culture. Then they go on to read about values, beliefs, and social classes, specifically about American values and beliefs, and complete a table with information in the form of complete sentences. [CR4b], [CR8] & [CR5b]

Students read an article about how culture affects the choice of profession or career, and compare American and Hispanic factors in this choice. [CR4b] & [CR8]

Students play a game to choose the country of origin of various surnames and complete a pre-reading graphic organizer with ideas about why people immigrate. [CR4b]

Students read an article about worldwide migration and complete
post-reading comprehension activities.  [CR2b]

Students practice audio interpretive communication by listening to a passage about the society and cultures of the United States. Then they practice print interpretive communication by reading about Irish and Arab immigrants in the U.S., followed by post-reading comprehension activities. [CR4a], [CR4b] & [CR8]

Students work in pairs to research a U.S. immigration topic and prepare a debate on the influence immigration will have on U.S. society by the year 2050, organizing their pro and con ideas on a graphic organizer that will later also serve as a basis for writing on the topic. [CR7] & [CR5b]

Students play an interactive game on popular proverbs and their origins. [CR4b]

Students read an article about U.S. immigration laws, and complete a comprehension activity based on it. Then they complete a chart with opinions on immigration issues, followed by a listening selection on culture and immigration and a post-listening activity. [CR2b], [CR4b] & [CR2a]

Students complete a graphic organizer about countries of origin of Hispanics in the U.S. Then they read an article about Hispanic immigration, followed by a comprehension activity and a speaking activity. [CR4b] & [CR3a]

Students complete a chart with reasons for learning or not learning another language and then go on to read about being bilingual, loss of the first language, and speaking English only, with a comprehension activity following. [CR8]

Students complete a questionnaire on their views about immigration. Then they take notes while listening to three characters of different nationalities speaking about their decision to immigrate. [CR4a] & [CR4b]

Students hear and read about the documentary Mojados, about illegal immigration to the U.S. [CR2a] & [CR8]

Students create and present a multimedia collage about the influence of immigrants on their community. [CR4b] & [CR5a]
<table>
<thead>
<tr>
<th>Students read an article about the history of immigration to the U.S., first completing a pre-reading exercise and then completing a post-reading activity on it. [CR2b] &amp; [CR4b]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students hear and read information about writers Julia Álvarez and Junot Díaz, and complete a graphic organizer comparing them. [CR2a], [CR2b] &amp; [CR7]</td>
</tr>
<tr>
<td>Students complete an interactive activity about the country of origin of famous athletes. Then they listen to an interview with Kenyan Olympic athlete Bernard Lagat and complete a self-checking comprehension activity. [CR2a] &amp; [CR4a]</td>
</tr>
<tr>
<td>Students read a brief biography of Argentine author Jorge Luis Borges and listen to a reading of his story “Borges y yo,” followed by comprehension activities. [CR4b], [CR4a], [CR2c]</td>
</tr>
<tr>
<td>Students continue writing and recording their entries in the <em>Mi voz</em> informal interpersonal writing journal, which they exchange with classmates for further writing of questions and comments. [CR3b]</td>
</tr>
<tr>
<td>Students view video, read, and hear passages about factors influencing globalization (especially in Mexico and Japan), oral literary traditions, comparison of values and beliefs in American and Hispanic cultures, migration and immigration (including history and laws), the importance of speaking two languages, and Jorge Luis Borges. [CR2a], [CR7] &amp; [CR8]</td>
</tr>
<tr>
<td>Students practice vocabulary related to argumentative writing, globalization, folklore, social classes, reasons for immigration, countries of origin of immigrants in the US, speaking more than one language, and the personal experience of immigrants, completing formative assessments on several of these topics. [CR4b]</td>
</tr>
<tr>
<td>Students practice grammar topics related to relative pronouns, simple and complex sentences, active and passive voice, imperfect subjunctive, the indicative with <em>si</em>, and transition words, completing formative assessments on these topics. [CR4b]</td>
</tr>
<tr>
<td>Students use the embedded recording tool to practice presentational speaking about these topics: results of KWL activity about globalization, factors that contribute to globalization, characteristics of oral literature and the <em>juglares</em> in Spain, cultural...</td>
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<tr>
<td>Assessments</td>
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</table>
|             | Students prepare a presentation answering the question “¿Podrás identificar en los mitos y leyendas las creencias y valores culturales que desean transmitir a sus descendientes?” in relation to print
sources on the oral traditions and other traditions of indigenous American people. [CR5a]

**Written Presentational Communication**

Students write an essay on the question “¿Cómo eran los primeros inmigrantes que llegaron a los Estados Unidos?” in relation to information from print and audio sources. [CR5b]

Students write an essay on the question “¿Cómo contribuyen los altos niveles de pobreza a la inmigracion?” in relation to information from print and audio sources. [CR5b]

Students write an essay on the question “¿Cómo se podría resolver el problema de la inmigración entre México y los Estados Unidos?” in relation to information from print and audio sources. [CR5b]

<table>
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<tr>
<th>Unit/Theme/Essential Questions</th>
<th>Semester B, Unit 3: Las oportunidades de empleo en dos culturas</th>
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<tbody>
<tr>
<td><strong>Themes</strong></td>
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<tr>
<td>Desafíos Globales [CR6a]</td>
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<tr>
<td>Vida Contemporánea [CR6c]</td>
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<td>Familias y Comunidades [CR6e]</td>
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<tr>
<td><strong>Contexts</strong></td>
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<tr>
<td>Las oportunidades de empleo en dos culturas/Las oportunidades de empleo en España/El empleo en los Estados Unidos/El mercado de empleo del futuro/Tu vida futura/Tus finanzas</td>
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<tr>
<td><strong>Essential Questions</strong></td>
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<tr>
<td>¿Cuáles son los desafíos sociales y económicos que enfrentan las sociedades, con respecto al trabajo?</td>
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<td>¿Cómo definen los individuos y las sociedades su propia calidad de vida?</td>
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<td>¿Cómo se expresan los distintos aspectos de la identidad en el empleo?</td>
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<tr>
<td>¿Cómo contribuyen los individuos al bienestar económico de las comunidades?</td>
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**Sample Learning Activities/Resources**

Student-centered questions: ¿Cuáles son algunas oportunidades de empleo en China y en México? ¿Cuáles son algunas oportunidades de empleo en España? ¿Cuáles son algunas características de las
<table>
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<tr>
<th>oportunidades de empleo en los Estados Unidos? ¿Cuáles son algunas características de las oportunidades de empleo de ahora y del futuro? ¿Cómo se usan las tarjetas de crédito, y cuáles son algunas ventajas y desventajas de las mismas? ¿Cómo se desarrolla un presupuesto? ¿Cómo se expresan opiniones sobre el mundo de las carreras y los puestos profesionales?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students complete a graphic organizer with ideas about high-demand jobs in China and then read an article about the Chinese economy and labor market, followed by a comprehension check. [CR4b] &amp; [CR8]</td>
</tr>
<tr>
<td>Students consider requirements for various careers in China and then read an article about Chinese youth and unemployment, followed by a comprehension activity. [CR4b] &amp; [CR8]</td>
</tr>
<tr>
<td>Students consider examples of exporting from Mexico and Mexican infrastructure and then read an article about work and education in Mexico, followed by further research on the topic and a comprehension exercise. [CR4b] &amp; [CR7]</td>
</tr>
<tr>
<td>Students read about job opportunities for bilingual workers after brainstorming names of jobs in various categories. Then they listen to an article about the benefits of knowing Spanish in the workplace, followed by a comprehension activity. [CR2a], [CR2b] &amp; [CR8]</td>
</tr>
<tr>
<td>Students view the movie Spanglish and write about what they would do if they were in the place of the characters of the movie. [CR2a], [CR8] &amp; [CR5b]</td>
</tr>
<tr>
<td>Students work in pairs to create and present a visual illustration of a chosen job, including a survey of Spanish-speakers’ views on being bilingual. [CR3a], [CR4a] &amp; [CR9]</td>
</tr>
<tr>
<td>Students play a game to match names of jobs in Spain with the images that represent them. Then they complete an activity on job salaries before practicing audio interpretive communication by listening to an article about salaries, followed by a self-checking comprehension activity. [CR4a] &amp; [CR4b]</td>
</tr>
<tr>
<td>Students read an article about the labor market in Spain, conduct further research on the topic, and complete a comprehension check. [CR4b] &amp; [CR7]</td>
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</table>
Students read an article about renewable energy and complete a comprehension activity. [CR4b] & [CR7]

Students complete a graphic organizer with ideas about suggestions for job creation and benefits of job creation, listen to an audio selection about job creation in Spain and the European Union, and complete post-listening comprehension activities. [CR4b], [CR2a] & CR4a

Students read an article about jobs in the U.S. and complete a post-reading comprehension activity. They play a game matching salaries to careers and consider what type of job or business they would like to have, followed by an oral presentation on the topic. [CR2b], [CR4b] & [CR5a]

They practice audio interpretive skills by listening to a selection about the growth and development of small businesses in the U.S. [CR2b] & [CR4a]

Students read an article about choosing a job or career, and complete a self-checking comprehension activity about it. Then they complete a survey on opinions about the necessity of education to get a job. Then they practice audio interpretive skills by listening to a conversation between two friends about getting a job, followed by a post-listening comprehension activity. [CR2b], [CR4a] & [CR9]

Students express opinions about jobs of the future before reading about population growth, life expectancy, and the future job market, followed by self-checking comprehension activities. Then they read an article about the future of medicine and science and complete comprehension activities. [CR3a] & [CR2b]

Students listen to a conversation between two friends about jobs of the future, and complete a comprehension activity. Then they complete a chart with their ideas about which jobs will cease to exist in the future, prior to listening to a conversation between two friends about jobs that will cease to exist. Then they complete a comprehension activity. [CR4a] & [CR4b]

Students begin a graphic organizer of advantages and disadvantages of credit cards and then read about credit cards. Then they listen to a conversation between a college student and his mother concerning money issues and complete a post-listening activity.
Students play an interactive game to see how they can achieve different lifestyles in the future. Then they read about why they should budget, how to budget, and suggestions for budgeting, followed by identifying goals and actually budgeting money to achieve them. [CR4b]

Students continue writing/recording in the informal interpersonal writing/speaking journal Mi voz about characteristics of different jobs or about the advantages of being bilingual in the workplace. Then they exchange journals and write or record questions and comments. [CR3b]

Students view video, read, and hear passages about the Chinese economy, youth and unemployment in China, work and education in Mexico and Spain, renewable energy, work in the United States, choosing a job, jobs of the future, credit cards, personal finance, and complete pre-, during-, and post-viewing, reading, or listening activities. [CR2a], [CR2b], [CR4a], [CR4b] & [CR8]

Students practice vocabulary related to jobs in China, famous buildings in China, careers and professions, the Spanish economy and unemployment rate, the European Union’s measures to promote renewable energy, self-employment, job-hunting, jobs of the future, credit cards, and personal finance, completing formative assessments on several of these topics. [CR4b]

Students practice grammar topics related to si- clauses in the present, future, and past tenses; the imperfect tense of regular and irregular verbs; the past perfect subjunctive; the conditional perfect; sequence of tenses; and preterite tense. They also complete formative assessments on these topics. [CR4b]

Students use the embedded recording tool to practice presentational speaking about these topics: salaries in different countries, ideas on having one’s own business, jobs that will cease to exist in the future, and jobs in the United States. [CR5a]

**Assessments**

**Spoken Interpersonal Communication**

Students participate in a simulated conversation, an interview by a newspaper reporter of someone who speaks Spanish and works in
the business world (the students). [CR3a]

Students participate in a simulated conversation with a credit card company representative trying to sell a credit card, where they inquire about interest rates and ask for information on other terms and conditions. [CR3a]

Audio, Visual, and Audiovisual Interpretive Communication

Students listen to a dialogue between two classmates about finding a job in the U.S. Then they complete a listening comprehension activity. [CR4a]

Written and Print Interpretive Communication

Students participate in a conversation based on three job ads from Spanish-speaking countries that they have researched, including salary information that they have read and compared with jobs in the United States. [CR4b]

Spoken Presentational Communication

Students prepare a presentation on the topic “¿Qué necesito lograr para obtener el estilo de vida que quiero en el futuro?” in relation to information from print and audio sources. [CR5a]

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<tr>
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<th>Semester B, Unit 4: El sistema de salud en dos culturas</th>
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<td></td>
<td>Ciencia y Tecnología [CR6b]</td>
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<td></td>
<td>Vida Contemporánea [CR6c]</td>
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<td></td>
<td>Familias y Comunidades [CR6e]</td>
</tr>
<tr>
<td>Contexts</td>
<td>El sistema de salud en dos culturas/El sistema de salud en tres culturas/Sistema de salud en los Estados Unidos/Controversias de salud alrededor del mundo/La salud y yo</td>
</tr>
<tr>
<td>Essential Questions</td>
<td>¿Cuáles son los desafíos del sistema de salud que enfrentan las sociedades del mundo?</td>
</tr>
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<td></td>
<td>¿Qué impacto tiene el desarrollo científico y tecnológico en el sistema de salud?</td>
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</tbody>
</table>
¿Cómo influyen los sistemas de salud en la vida contemporánea? ¿Cómo contribuyen los sistemas de salud al bienestar de las comunidades?

| Sample Learning Activities/Resources | Student-centered questions: ¿Cómo es el sistema de salud en Costa Rica y Francia? ¿Cuáles son algunos cognados relacionados con las enfermedades en diferentes comunidades hispanohablantes? ¿Cómo se comparan los beneficios del sistema de salud de Costa Rica, Francia y Puerto Rico? ¿Cuáles son las fortalezas y debilidades del sistema de salud de los Estados Unidos? ¿Cuáles son las controversias dominantes de salud en el mundo y en los Estados Unidos? ¿Cuáles son los riesgos de salud en tu vida, hoy en día? ¿De qué maneras la actividad física y una dieta saludable contribuyen a tener una vida saludable? ¿Qué ideas puedes sugerirles a tu familia, a tus amigos y a ti mismo para mejorar la salud?

Students consider population and per capita income of residents of France and Costa Rica before reading about what a health-care system is and listening to a passage about the World Health Organization, completing comprehension activities. [CR8], [CR2a] & [CR4a]

Students create a KWL graphic organizer to complete with ideas about health care. Then they read about traditional and alternative medicine and after further research, complete a Venn diagram about the two types. [CR5b] & [CR7]

Students compare and contrast the health care systems of Costa Rica and France and then complete the KWL chart. [CR5b] & [CR8]

Students read and listen to information about the health care system in Puerto Rico and then complete a chart comparing and contrasting the health care system of Puerto Rico with those of Costa Rica and France. Students conduct further research on Puerto Rico. [CR2a], [CR4a] & [CR8]

Students read about health challenges faced by Hispanics, and complete a comprehension activity. [CR2b] & [CR4b]

Students practice expressing cognates in English and Spanish and then with translating a patient’s medical record. [CR4b]

Students consider the strengths and weaknesses of the United States health care system and then read and listen about the topic and conduct further research. This is followed by reading about traditional versus alternative medicine, and comprehension
Students prepare ideas for a debate on the health care system of the U.S., conducting further research and practicing note taking. [CR8]

Students complete an activity on health priorities worldwide, then read about the Panamerican Health Organization and complete comprehension activities. They complete a chart about health priorities (climate change, child mortality, poverty, hunger, malnutrition, and HIV-AIDS), their descriptions, statistics, and possible solutions; and they listen to a radio broadcast about world health, completing comprehension activities. [CR2b], [CR2a] & [CR4b]

Students read about how health issues affect them and complete a post-reading activity. They learn about the food pyramid and conduct further research on a healthy diet and benefits of exercise. They identify health dangers or risks that affect them and recommend how to minimize them. They write letters with recommendations for people with various health issues, along with a chart showing the basics of this information. [CR2b], [CR4b] & [CR3b]

In pairs, students create and present a multimedia brochure on how physical activity and a healthy diet contribute to overall health. [CR3a], [CR4a], [CR4b] & [CR5a]

Students read and complete activities about the format of the AP Spanish Language and Culture Exam, and on how to prepare for the different sections of the test. [CR4b]

Students view videos, read, and hear passages about what a health care system is, concepts related to health care, types of medicine, illnesses affecting Hispanics, the U.S. health care system, types of medicine in the U.S., alternative medicine, world health issues, exercise, and a healthy diet, completing comprehension activities before, during, and/or after viewing, reading, or listening. [CR2a], [CR2b], [CR4a], [CR4b] & [CR8]

Students practice vocabulary related to health and health care, cognates, diseases and illnesses, world health, the World Health Organization, and reducing health risks, completing formative
Students practice grammar topics related to present indicative, preterite, past perfect, imperfect progressive, subjunctive to express will or emotion, and subjunctive with impersonal expressions, completing formative assessments on these topics. [CR4b]

Students use the embedded recording tool to practice presentational speaking about these topics: differences between conventional and alternative medicine, results of a KWL chart about health systems of Costa Rica and France, a patient’s medical record, sentences using preterite and imperfect tenses, the status and obstacles of the health care system in the United States, the Panamerican Health Organization, a radio report on world health, recommendations for being healthy, and sentences using the subjunctive mood. [CR5a]

<table>
<thead>
<tr>
<th>Assessments</th>
<th>Spoken Interpersonal Communication</th>
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<tbody>
<tr>
<td></td>
<td>Students have a simulated conversation with their parents about health risks and dangers, and how to maintain good health. [CR3a]</td>
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<th>Written Interpersonal Communication</th>
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<td></td>
<td>Students write an e-mail to a pen pal about the similarities and differences between different countries’ health care systems, including appropriate greetings and goodbyes. [CR3b]</td>
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<th>Written and Print Interpretive Communication</th>
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<td></td>
<td>Students read a passage about the World Health Organization and answer comprehension questions. [CR4b]</td>
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</table>

|                  | Students read a passage about locally grown food, organic food, and sustainability, and answer comprehension questions. [CR4b]|

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<tr>
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<th>Spoken Presentational Communication</th>
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<td></td>
<td>Students prepare a presentation on the question “¿Deben estar enfrentadas la medicina tradicional y la medicina natural?” in relation to print and audio sources. [CR5a]</td>
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</tbody>
</table>

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Authentic Resources & Audio/Visual/Audiovisual Resources on the Web: [CR2b] & [CR2a]

Throughout the course, students are directed to authentic reading and listening materials on the Internet. Some of the authentic material is built into the course, while other materials are on external websites. Following is a selection of those websites:

- Batanga: http://www.batanga.com
- BBC: http://www.bbcmundo.com
- BBC en español: http://news.bbc.co.uk/hi/spanish/news
- Cervantes Virtual Center: http://www.cvc.cervantes.es
- CNN en español: http://www.cnn.com/espanol
- Dominican Republic: http://www.elnacional.com.do
- El Mundo: http://www.elmundo.es
- Flamenco World: http://www.flamenco-world.com/indice.htm
- Granma International News: http://www.granma.cu
- José Martí: http://www.ensayistas.org/filosofos/cuba/marti/index.htm
- Jump TV: http://www.jumptv.com
- La Nación: http://www.nacion.com
- Latin American Network of Museums: http://lanic.utexas.edu/la/region/museums
- Literature Center: http://www.literaturas.com/v010/index0611.asp?scroll=no
- Miami Herald: http://www.miami.com/mld/elnuevo
- Ministro de Cultura, España: http://www.mcu.es
- Mundo Latino: http://www.mundolatino.org/cultura
- Musicalizando: http://www.musicalizando.com
- Nuevos Horizontes: http://www.nuevoshorizontes.org
- Poscasts Notes in Spanish: http://www.notesinspanish.com
- Prensaescrita: http://www.prensaescrita.com
- Puerta del Sol: http://www.puertadelsol.com
- Quia: http://www.quia.com
- Real Academia Española: http://www.rae.es/RAE/Noticias.nsf/Home?ReadForm
- SCOLA: http://www.scola.org
- Study Spanish: http://www.studyspanish.com
- Supermarket: http://www.supermaxi.com
- Televisión Española: http://www.rtve.es/tve/b/loslunnis/cancioneslunnis.htm
- Think Spanish: http://www.thinkspanish.com
- Univision: http://www.univision.com
- Yabla: http://ola.yabla.com

Movies:
Bajo la Misma Luna
Spanglish
ADVANCED PLACEMENT®
STATISTICS
Course Overview

Statistics are used everywhere from fast food businesses ordering hamburger patties to insurance companies setting rates to predicting a student’s future success by the results of a test. Students will become familiar with the vocabulary, method, and meaning in the statistics which exist in the world around them. This is an applied course in which students actively construct their own understanding of the methods, interpretation, communication, and application of statistics. [C4] Each unit is framed by enduring understandings and essential questions designed to allow students a deep understanding of the concepts at hand rather than memorization and emulation. Students will also complete several performance tasks throughout the year consisting of relevant, open-ended tasks requiring students to connect multiple statistical topics together. [C4] The TI-83+/84 OR 89 calculator and computers will be used to explore the world of data and the patterns which can be found by analyzing this information as well as statistical relationships. [C5] General topics of study include "exploring data," "planning and design of a study," anticipating patterns," and "statistical inference."

Primary Textbook References and Resource Materials

AP Statistics content located in Blackboard coursework.

Selected, released free response questions from The College Board.

Various website resources including but not limited to: Exploring Data, Surfstat.australia, Hyperstat, and Online Statbook.

Overarching Enduring Understandings for the course

• Mathematics is a useful language for symbolically modeling and thus simplifying and analyzing our world.
• Mathematics is a logical and objective means of analyzing and solving problems.
• The effective communication of mathematics is essential to its application. [C4]

Topical Enduring Understandings for the course

• Students will understand that statistical information is a powerful, pervasive force in our world.
• Exploratory analysis of data makes use of graphical and numerical techniques to study patterns and departures from patterns. [C2a]
• Data must be collected according to a well-developed plan if valid information is to be obtained. [C2b]
• Probability is the tool used for anticipating what the distribution of data should look like under a given model. [C2c]
• Statistical inference guides the selection of appropriate models. [C2d]
• Students will understand that statistics can be used to make valuable, reliable inferences from empirical information. [C2d]
• The appropriate communication and interpretation of statistics is essential to avoiding statistical abuse and/or misunderstanding. [C4]
• Analysis of data is made possible through the use of calculator and computer technology. [C5]
Unit 1 – Exploring Univariate Data (3.5 Weeks)

Enduring Understandings
• Interpretation of data is dependent upon the graphical displays and numerical summaries. [C2a]
• Graphical displays are created for the purpose of analysis and communication. [C4]

Essential Questions
• How do we communicate data?
• How do we understand data?
• Can you lie with statistics? How and to what extent?

Knowledge and Skills
• Construct dotplots, stemplots, histograms, and cumulative frequency plots.
• Interpret dotplots, stemplots, histograms, and cumulative frequency plots.
• Describe center, shape, spread, clusters, gaps, outliers and other unusual features
• Measure center using mean and median
• Measure spread using range, interquartile range, and standard deviation
• Measure position using quartiles, percentiles, and standardized (z) scores
• Use boxplots (and modified) with the five number summary
• Understand the effect of changing units on summary measures
• Do normal calculations
• Use dotplots, back-to-back stemplots, and parallel boxplots
• Compare center and spread both within a group and between groups
• Discuss shape, outliers, center, and spread of distributions
• Compare position of different distributions using standardization

Sample Assessments/Activities
• Using one of the sites below (from the DASL website), students perform an analysis of the distribution of the data. Analysis includes graphically displaying the data, evaluating its ‘normalcy’, describing it numerically, and making claims about the distribution of individual data values. Students then locate an individual data point, find its standardized value, and determine its percentile ranking. Findings are presented in a format of their choice. [C2a, C4, C5]
• Students complete a variety of released free response items focused on summarizing and comparing univariate data.
Unit 2 – Exploring Bivariate and Categorical Data (4 Weeks)

Enduring Understandings
• Regression is an effective model for prediction. [C2a]
• There is a difference between causation and correlation. [C2a]

Essential Questions
• To what extent can we predict the future?
• Is correlation ever causation?
• How can modeling data help us to understand patterns?

Knowledge and Skills
• Create and analyze patterns in scatterplots
• Understand correlation and linearity
• Construct, interpret and use least-squares regression lines
• Construct and interpret residual plots
• Identify and describe outliers and influential points
• Make transformations to achieve linearity (logarithmic and power)
• Create and interpret frequency tables and bar charts
• Create and interpret marginal and joint frequencies for two-way tables
• Create and interpret conditional relative frequencies and determine association
• Compare distributions using bar charts

Sample Assessments/Activities
• Choose a problem that interests you involving a dependent variable and an independent variable. The sample data for this problem must consist of at least 20 data points and must come from your own research or from an official, reputable site on the World Wide Web. Using technology (TI-Interactive or other application), construct a scatterplot and then perform a correlation & regression analysis on this data set. Write a report on the data and its analysis which includes a complete reference for the source of your data, the computer analysis of your data (must consist of a scatterplot, correlation analysis and regression analysis) and one or two well-written paragraphs summarizing your interpretation of these results. Be sure to address both sides of the story statistically. [C2a, C5]
• Students complete a variety of released free response items focused on linear and non-linear regression.
Unit 3 – Planning and Conducting Studies and Experiments (3 Weeks)

Enduring Understandings
- Careful planning is essential to obtaining valid data. [C2b]
- Clarifying the question leads to appropriate methodology. [C2b]
- The analysis is only as good as the data. [C2b]
- Students will understand how to deconstruct statistical information in an effort to evaluate its validity and assess the aims of the authors in presenting the information. [C2b]

Essential Questions
- How do we obtain data?
- To what extent is all data biased?
- To what extent does data collection methodology affect results?
- How can variable be eliminated through randomization?
- How does one decide between an observational study, an experiment, and a simulation?
- To what extent can data be purposefully biased?

Knowledge and Skills
Methods of data collection:
- Census, Sample survey, Experiment, Observational study
Planning and conducting surveys
- Know the characteristics of a well-designed survey
- Understand populations, samples, and random selection
- Recognize sources of bias in sampling and surveys (undercoverage, voluntary response, etc.)
- Recognize and apply sampling methods (simple random sampling, stratified random sampling, and cluster sampling)
Planning and conducting experiments
- Know the characteristics of a well-designed and well-conducted experiment
- Understand treatments, control groups, experimental units, random assignments, and replication
- Recognize sources of bias (including confounding variables, the placebo effect, and blinding)
- Recognize and apply completely randomized designs
- Recognize and apply different experimental designs (randomized block design, matched pairs design)
Generalize results from collected data
Understand the types of conclusions that may be drawn from collected data

Sample Assessments/Activities

- Students find and statistically analyze an article in a newspaper, magazine, or other current publication. Students consider: [C2b, C4, C3]
  - Is this an observational study or an experiment?
  - What was the sampling design or experimental design?
  - What are the possible biases in the study?
  - How was randomization utilized?
  - To what extent are the conclusions in the article justified and able to be generalized?

- Students complete a variety of released free response items focused on sampling methods, simulations, and experimental design.
Unit 4 – Probability and Random Variables (3.5 Weeks)

Enduring Understandings

- Probability models are useful tools for making decisions and predictions. [C2c]
- Students will understand that probability is the basis of statistical inference. [C2c]
- The notion and behavior of a random variable is foundational to understanding probability distributions. [C2c]

Essential Questions

- When is probability a sure thing?
- How can we base decisions on chance?
- What is a random variable?
- How may random variables be combined?

Knowledge and Skills

- Create and interpret probability models
- Find and interpret long-run relative frequencies
- Apply the Law of Large Numbers
- Apply the addition and multiplication rules
- Understand independence and disjoint
- Understand conditional probability
- Create and apply simulations to access their probability distributions [C5]
- Mean and standard deviation for sums and differences of independent random variables.

Sample Assessments/Activities

- Students design and play a game of chance (using dice or cards) to illustrate their understanding of the rules of probability, expected value, the law of large numbers, and the nature of random variables. Students first use simulation [C5] to 'test' the variance of their game and follow up by actually playing the game with classmates and subsequently write a summary of their results. Results help students to conceptualize the notions of sampling variability and set the stage for the study of sampling distributions. [C2c]
- Students complete a variety of released free response items focused on probability and expected value.
Unit 5 – Binomial, Geometric, and Sampling Distributions (3.5 Weeks)

Enduring Understandings

- Many discrete phenomena may be described and thus predicted by binomial and geometric models. [C2b, C2c]
- The normal distribution and central limit theorem are essential to analyzing samples of data. [C2b, C2c]

Essential Questions

- How can modeling predict the future?
- To what extent does our world exhibit binomial and geometric phenomena?
- How do sampling distributions relate to population distributions?
- What is a normal distribution?
- How does the normal distribution apply to the real world?

Knowledge and Skills

- Recognize and apply the binomial distribution
- Find the mean and standard deviation of a binomial distribution
- Recognize and apply the geometric distribution
- Find the geometric mean
- Properties of the normal distribution
- The normal distribution as a model for measurements
- Sampling distribution of a sample proportion
- Sampling distribution of a sample mean
- Central Limit Theorem
- Sampling distribution of a difference between two sample proportions
- Sampling distribution of a difference between two sample means

Sample Assessments/Activities

- Students visit the Rice Virtual Lab to explore the Central Limit Theorem and sampling distributions. Students construct their understanding of how sample size and the shape of the population distribution affect the sampling distribution of the mean (and other statistics). [C2c, C5]
- Students complete a variety of released free response items focused on binomial, geometric, and sampling distributions.
Unit 6 – Introduction to Inference (3.5 Weeks)

Enduring Understandings
- Students will understand the underpinnings of statistical inference. [C2d]
- Inference is based upon chance. [C2d]
- Confidence intervals are effective tools for estimation. [C2d]
- Tests of significance and confidence intervals drive decision making in our world. [C2d]
- Error analysis is a critical component of significance testing. [C2d]

Essential Questions
- What is inference?
- How can decisions be based on chance?
- To what extent should decisions be based on chance?
- How can we determine the mean of a population with a “small” sample?
- When are tests of significance and confidence intervals used?
- How can one prepare for errors from significance tests?

Knowledge and Skills
- Check assumptions for confidence intervals and significance tests
- Find confidence intervals
- Conduct significance tests
- Type I, Type II errors, and Power
- Find the probability of Type I errors
- Understand the relationship between the probabilities of Type I and Type II errors

Sample Assessments/Activities
- Class activity to determine which students had ESP (extra sensory perception). Students work in pairs setting up an experiment to determine if their partner has ESP. Data is then analyzed through conducting a significance test as well as a discussion of significance level and probability of Type I and Type II errors. [C2d, C4]
Unit 7 – Inference for Means and Proportions (3.5 Weeks)

Enduring Understandings
- Confidence intervals are effective tools for estimating the mean of a population. [C2d]
- Significance tests determine the likelihood of a sample. [C2d]
- The analysis is only as good as the data. [C3]
- Confidence intervals are effective tools for estimating the proportion of a population. [C2d]
- Significance tests determine the likelihood of a sample. [C2d]

Essential Questions
- How can we determine the mean of a population with a “small” sample?
- To what extent are significance tests reliable?
- How can we determine the proportion of a population with a “small” sample?
- To what extent are significance tests reliable?

Knowledge and Skills
- Check assumptions for confidence intervals and significance tests of means (both 1 sample and 2 sample)
- Find confidence intervals for means (both 1 sample and 2 sample)
- Conduct significance tests for means (both 1 sample and 2 sample)
- Determine sample size for a desired margin of error
- Check assumptions for confidence intervals and significance tests of proportions (both 1 sample and 2 sample)
- Find confidence intervals for proportions (both 1 sample and 2 sample)
- Conduct significance tests for proportions (both 1 sample and 2 sample)
- Determine sample size for a desired margin of error

Sample Assessments/Activities
- Parking lot proportions: Students venture out to the school parking lot and collect data about the vehicles in the staff lot as well as the student lot. Data such as car color, make, country of origin, and type of car. Students then construct confidence intervals and run significance tests to determine if and what differences there are between the students' cars and staffs' cars. [C2d, C4]
- Students complete a variety of released free response items focused on inference for means and proportions.
Unit 8 – Inference for Goodness of Fit, Independence, Homogeneity, and Regression (4 Weeks)

Enduring Understandings

• Significance tests can also determine the likelihood of a sample from a series of proportions. [C2d]
• Significance tests can also determine whether two variables are independent. [C2d]
• Significance tests can determine the likelihood of a bivariate sample’s slope. [C2d]

Essential Questions

• How can we test a series of proportions?
• How can we verify that two variables are independent?
• How can we test the slope of a correlation?

Knowledge and Skills

• Check assumptions for both chi-squared goodness of fit and chi-squared test of independence
• Conduct significance tests for both chi-squared goodness of fit and chi-squared test of independence
• Check assumptions for inference for regression or a linear regression test.
• Conduct significance tests for linear regressions

Sample Assessments/Activities

• Have you ever wondered why the package of M&Ms you just bought never seems to have enough of your favorite color? Or, why is it that you always seem to get the package of mostly brown M&Ms? What’s going on at the Mars Company? Is the number of the different colors of M&Ms in a package really different from one package to the next, or does the Mars Company do something to insure that each package gets the correct number of each color of M&M? Students run a complete significance test both in groups and as an entire class to justify their results. [C2d, C3, C4]
• Students complete a variety of released free response items focused on inference for independence, goodness of fit, and regression.
Unit 9 – Review (3 Weeks)

Students review and prepare for the AP exam. Students take released exams and practice released free response questions. Students participate in peer scoring free response questions.

Unit 10 – Culminating Project (3 Weeks)

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data.

Overarching ideas:

- Mathematics is a useful language for symbolically modeling and thus simplifying and analyzing our world.
- Mathematics is a logical and objective means of analyzing and solving problems.
- The effective communication of mathematics is essential to its application.

Statistics Ideas:

- Students will understand that statistical information is a powerful, pervasive force in our world.
- Exploratory analysis of data makes use of graphical and numerical techniques to study patterns and departures from patterns.
- Data must be collected according to a well-developed plan if valid information is to be obtained.
- Probability is the tool used for anticipating what the distribution of data should look like under a given model.
- Statistical inference guides decision making.

Students’ task: To work in groups of 2 or 3 to complete a project that demonstrates thorough understanding of the ideas completed in class.

Stage 1: Design a proposal.

Students decide in what way they will demonstrate an understanding of the aforementioned ideas. This is completely open-ended, many ideas will be brainstormed in class. The proposal must include a timeline and date for presentation to the class. A
typical project is a complete statistical study. [C3, C4, C5]

Stage 2: Criteria for final presentation.

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<thead>
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<th>Component / Points</th>
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<tr>
<td><strong>Professionalism</strong></td>
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<td>Paper is error free, organized and professionally formatted.</td>
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<td>Paper is almost error free, organized and professionally formatted.</td>
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<td>Paper contains some errors and may contain a few flaws.</td>
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<td>Paper contains significant number of errors.</td>
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<td>Paper is clearly unpolished and poorly done.</td>
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<td><strong>Statistical Understanding</strong> (x2)</td>
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<td>Correctly uses all appropriate terminology. Clearly identifies sample, population, bias, confounding variables and other elements of the study.</td>
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<td>Correctly uses most of the appropriate terminology. Identifies sample, population, bias, confounding variables and other elements of the study.</td>
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<tr>
<td>Uses most of the appropriate terminology (may contain minor or few errors). Identifies sample, population, bias, confounding variables and other elements of the study. May be missing a component.</td>
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<tr>
<td>Uses most of the appropriate terminology (may contain errors). Identifies some of the sample, population, bias, confounding variables and other elements of the study.</td>
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<td>Shows little application of the terminology. Is unable to identify the elements of the study.</td>
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<td><strong>Conclusions</strong> (x2)</td>
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<td>Shows sophisticated and complete understanding of the conclusions that may be drawn and generalized from the study.</td>
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<td>Shows strong understanding of the conclusions that may be drawn and generalized from the study.</td>
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<td>Shows basic understanding of the conclusions that may be drawn and generalized from the study.</td>
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<td>Shows weak understanding or some misunderstanding of the conclusions that may be drawn and generalized from the study.</td>
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<tr>
<td>Shows little or no understanding of the conclusions that may be drawn and generalized from the study.</td>
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Stage 3: Complete the project.

There will be several checkpoints along the way (most determined by the students). These include but are not limited to: initial proposal, data collection, inference calculations, generalizations, rough draft of presentation.
ADVANCED PLACEMENT®
U.S. GOVERNMENT
& POLITICS
AP US Government and Politics Course Syllabus

**COURSE DESCRIPTION:** AP US Government and Politics presents an analytic perspective on American politics. The course introduces students to the ideals, institutions, and processes that direct the daily operations of our government and shapes our public policies. Students will use a variety of theoretical perspectives and explanations to interpret and analyze the political landscape to develop a better understanding of the strengths and weaknesses of our system of government.

**COURSE OBJECTIVES:**
- Explain the American system of government and evaluate its strengths and weaknesses
- Read, understand, and interpret primary source documents and contemporary news analyses related to American government and public policy
- Analyze and interpret data and other relevant information to US government and politics
- Write analytical and interpretive essays demonstrating an understanding of the ideals, institutions and processes of the American political system

**COURSE LENGTH:** One Semester

**REQUIRED TEXTS:** Government in America: People, Politics, and Policy, 14/E
Edwards, Wattenberg, & Lineberry | ©2009 | Longman 0-13-715159-4

<table>
<thead>
<tr>
<th>Theme/ Unit</th>
<th>Section Name</th>
<th>Objectives</th>
<th>Assessments</th>
<th>Content Plan</th>
</tr>
</thead>
</table>
| Unit 1: Constitutional Foundations | Introduction to American Political Culture | Students will be able to:  
Describe sources of American political culture and compare America's political culture to other democracies.  
Compare the values and principles of American political ideologies. | Journal: Media Evaluation  
Discussion: Elements of Democracy  
Discussion: What is "America Identity"?  
American Political Culture Quiz | Chapter 1: Introducing Government in America  
Evaluating Sources of Information  
Media Evaluation Worksheet  
Democracy vs. Authoritarian Government  
Pluralism vs. Elite Theory Tutorial  
Theories of Power: Alternative Theoretical Views by William Domhoff  
American Political Culture Tutorial  
de Tocqueville Reading  
Analyzing American Political Culture via charts and graphs  
Sources of American Political Culture Tutorial  
Political Ideology Tutorial |
### AP US Government and Politics Course Syllabus

<table>
<thead>
<tr>
<th>The Constitution</th>
<th>Students will be able to:</th>
<th>Journal: The Federalist Papers (based on select readings)</th>
<th>Assignment: Free Response Question</th>
<th>Chapter 2: The Constitution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Evaluate the theories and styles of democratic government.</td>
<td>Social Contract Theory Hobbes and Locke Primary Sources Reading</td>
<td>Declaration of Independence Video</td>
<td>Compare Hobbes and Locke</td>
</tr>
<tr>
<td></td>
<td>Analyze the experiences, philosophies and ideologies that influenced the formulation and adoption of the American Declaration of Independence and the Constitution.</td>
<td>Declaration of Independence Video</td>
<td>Compare Hobbes and Locke</td>
<td>Great British Documents Reading Assignment and Guide</td>
</tr>
<tr>
<td></td>
<td>Analyze the influence of the American experience on the U.S. Constitution and the ratification debates.</td>
<td>The Articles of Confederation Chart</td>
<td>The Articles of Confederation Chart</td>
<td>The Articles of Confederation Chart</td>
</tr>
<tr>
<td></td>
<td>Evaluate the major principles of American democracy developed in the Federalist Papers the Constitution, and the Bill of Rights and explain their justification.</td>
<td>Executive, Legislative and Judicial Branches Compared: Checks and Balances, Division of Power, and Federalism</td>
<td>Executive, Legislative and Judicial Branches Compared: Checks and Balances, Division of Power, and Federalism</td>
<td>Executive, Legislative and Judicial Branches Compared: Checks and Balances, Division of Power, and Federalism</td>
</tr>
<tr>
<td></td>
<td>Evaluate the motives of the framers of the constitution.</td>
<td>Influences on the Constitution</td>
<td>Influences on the Constitution</td>
<td>Influences on the Constitution</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Writing Free Response Questions</td>
<td>Writing Free Response Questions</td>
<td>Writing Free Response Questions</td>
</tr>
</tbody>
</table>
### AP US Government and Politics Course Syllabus

<table>
<thead>
<tr>
<th>Students will be able to:</th>
<th>Discussion: Federalism and the Supreme Court</th>
<th>Chapter 3: Federalism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain the Constitutional basis of federalism.</td>
<td>Journal: Evaluating Modern Federalism</td>
<td>Distribution of Powers</td>
</tr>
<tr>
<td>Evaluate the causes and impact of changes in</td>
<td>Discussion: Power Struggles in the News Today</td>
<td>Powers Distribution Comparison</td>
</tr>
<tr>
<td>American federalism since the writing of the</td>
<td></td>
<td>Distribution of Powers Reading Guide</td>
</tr>
<tr>
<td>Constitution.</td>
<td></td>
<td>McCulloch v Maryland</td>
</tr>
<tr>
<td>Trace the expansion of national power and the</td>
<td></td>
<td>Implied Powers</td>
</tr>
<tr>
<td>assess success of moves to reverse this expansion.</td>
<td></td>
<td>Intergovernmental Relations</td>
</tr>
<tr>
<td>Analyze the implications of federalism as a</td>
<td></td>
<td>Sabato: Now Batting for Federalism</td>
</tr>
<tr>
<td>foundation of American government.</td>
<td></td>
<td>Federalism and the Supreme Court</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reading Guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Federalism Supreme Court Cases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phases of Federalism</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vocabulary Flashcards</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit Test</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>60 multiple choice questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Free Response Questions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The Madisonian Model: Separation of Powers, Checks and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balances, and Federalism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Changing Nature of Federalism</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reach Cyber Charter School Application
## AP US Government and Politics Course Syllabus

<table>
<thead>
<tr>
<th>Theme / Unit</th>
<th>Section Name</th>
<th>Objectives</th>
<th>Assessments</th>
<th>Content Plan</th>
</tr>
</thead>
</table>
| Unit 2: Civil Liberties and Rights | Civil Liberties | Students will be able to:  
- Analyze the effect of the 14th amendment and incorporation doctrine on American civil liberties in the states.  
- Analyze the development of first amendment rights as they evolved through judicial interpretation.  
- Analyze the development of the rights of the accused as they evolved through judicial interpretation.  
- Analyze the development of privacy rights as they evolved through judicial interpretation and legislative action. | Journal: The Bill of Rights in Students’ Lives  
Discussion: Current Events News Articles Involving the Bill of Rights | Chapter 4: Civil Liberties and Public Policy  
Introduction to Civil Liberties  
Supreme Court Research, Part 1  
Establishment and Free Exercise Court Cases  
Constitutional Law and the Importance of Free Exercise in Schools  
Freedom of Expression  
Supreme Court Research, Part 2  
Free Speech and Expression Court Cases  
Criminal Proceedings and Civil Liberties  
Privacy Rights Video  
Due Process Rights  
Supreme Court Research, Part 3  
You Have the Right to Remain Silent Video  
Due Process Court Cases  
Flashcards Review |
### AP US Government and Politics Course Syllabus

<table>
<thead>
<tr>
<th>Civil Rights</th>
<th>Discussion: Civil Rights Timeline</th>
<th>Chapter 5: Civil Rights and Public Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will be able to:</td>
<td></td>
<td>African-American Odyssey Web Quest</td>
</tr>
<tr>
<td>Trace the expansion of voting rights as they evolved through Constitution</td>
<td></td>
<td>Read and analyze: Thirteenth, Fourteenth, and Fifteenth Amendments</td>
</tr>
<tr>
<td>amendments and legislative and judicial action.</td>
<td></td>
<td>The Rise and Fall of Jim Crow Simulation</td>
</tr>
<tr>
<td>Apply and evaluate the impact of the Fourteenth Amendment on the</td>
<td></td>
<td>Non-Violent Protests and The Montgomery Bus Boycott Videos</td>
</tr>
<tr>
<td>constitutional development of rights and liberties for African-Americans.</td>
<td></td>
<td>Affirmative Action and Equality</td>
</tr>
<tr>
<td>Analyze the evolution of equality through judicial and legislative action.</td>
<td></td>
<td>Civil Rights and the Schools</td>
</tr>
<tr>
<td></td>
<td>Journal: 1964 Civil Rights Act</td>
<td>Southern Schools Desegregation Video</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Civil Rights and Supreme Court Cases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Talking About My Constitution Game</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyzing Implications of Supreme Court Cases</td>
</tr>
</tbody>
</table>

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# AP US Government and Politics Course Syllabus

## Test Information
- **60 Multiple Choice Questions**
- **2 Free Response Questions**
  1. Applying the 14th Amendment to expand civil liberties
  2. Applying the 13th, 14th, and 15th Amendments in civil rights cases

## Syllabus Outline

<table>
<thead>
<tr>
<th>Theme/Unit</th>
<th>Section Name</th>
<th>Objectives</th>
<th>Assessments</th>
<th>Content Plan</th>
</tr>
</thead>
</table>
| People and Politics | Public Opinion | Students will be able to:
  - Analyze the nature, influences, consequences, and measurement of public opinion.
  - Identify and evaluate the ways in which citizens vote and otherwise participate in political life.
  - Describe the cleavages in the American political landscape and their impact on American Democracy.
  - Analyze the changes in the American population and their impact on American Democracy.
  - Explain the political socialization process.
  - Evaluate factors that influence citizens to differ from one another in terms of political beliefs and behaviors.
 | Creating and Comparing Political Polls
  Discussion: American’s Political Knowledge | Chapter 6: Public Opinion and Political Action
  The American Population Video
  Web Search: The Census Controversy
  Majority Minority Web Quest
  Agents of Political Socialization
  Decline of Trust in the Government
  Political Ideology
  How to Tell a Liberal from a Conservative
  Political Participation
  Free Response Practice: Political Participation |
## AP US Government and Politics Course Syllabus

<table>
<thead>
<tr>
<th>Media</th>
<th>Students will be able to:</th>
<th>Analysis of Truth and the Media</th>
<th>Chapter 7 The Mass Media and the Political Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Evaluate the role of the mass media in the political system.</td>
<td>Public Opinion and Mass Media Quiz</td>
<td>The Media in American Politics</td>
</tr>
<tr>
<td></td>
<td>Explain the functions and structures of the media in the political system.</td>
<td></td>
<td>Analyzing the Role of New Media in the Political Process: Report from the Pew Research Center</td>
</tr>
<tr>
<td></td>
<td>Analyze the impact of the media on public opinion and the use of the media by political campaigns.</td>
<td></td>
<td>News War: Video and Video Guide</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Political Parties</th>
<th>Students will be able to:</th>
<th>Create a Marketing Campaign: Democrats, Republicans and Independents</th>
<th>Chapter 8: Political Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Describe the functions and organization of political parties.</td>
<td></td>
<td>Federalist Number 10 Reading Assignment</td>
</tr>
<tr>
<td></td>
<td>Analyze the cause and effects of the American two party systems and evaluate the proposals for change.</td>
<td></td>
<td>Multiple Choice Practice for AP Exam</td>
</tr>
<tr>
<td></td>
<td>Explain the role and impact of third parties in the political process.</td>
<td></td>
<td>The Meaning of Party</td>
</tr>
<tr>
<td></td>
<td>Analyze the implications of the two-party system.</td>
<td></td>
<td>Why Political Parties?</td>
</tr>
<tr>
<td></td>
<td>Compare and contrast the ideological and demographic differences between the two major parties.</td>
<td></td>
<td>Republicans and Democrats Video and T-chart organizer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The Party in the Electorate and the Party in the Government</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Party Identification</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Comparison: Democrats and Republicans</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Party Eras</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Third Parties</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Blitz Game</td>
</tr>
</tbody>
</table>
Chapter 10: Elections and Voting Behavior  
Political Campaigns  
Fact checking Presidential Campaign Commercials  
Campaign Finance  
Votes for Sale Video  
527s and Political Action Committees  
A Tale of Three Elections  
Multiple Choice Practice: Campaigns, Elections and Voting  
Voting  
Early Voting Blog from Online NewsHour  
Getting Out the Vote Video  
Who Votes?  
Edwards: Electoral College and Voter Inflation  
Analyzing Charts and Graphs: Electoral College Results, Voter Turnout, Party Identification  
Multiple Choice Practice: The Incumbent Advantage |

Students will be able to:  
Understand the operation and evaluate the role of elections in American politics.  
Explain current election law including how campaigns are financed.  
Analyze the impact of the current nomination process.  
Evaluate the workings and implications of the Electoral College.  
Evaluate the current laws governing campaign financing and proposed changes.
## AP US Government and Politics Course Syllabus

<table>
<thead>
<tr>
<th>Students will be able to:</th>
<th>Research Interest Groups and How They Try to Shape Policy</th>
<th>Chapter 11: Interest Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze the causes and effects of the growth of interest groups and PACs in the American political system.</td>
<td>Analyzing Theories of Interest Group Influences</td>
<td>Interest Groups</td>
</tr>
<tr>
<td>Analyze the effects of interest groups and PACs on the political process and policy.</td>
<td>Lobbyists Video and Video Guide</td>
<td>Types of Interest Groups</td>
</tr>
<tr>
<td>Compare the types of Interest group, their resources and strategies.</td>
<td>Multiple Choice Practice: Interest Groups</td>
<td>How Interest Groups Try to Shape Policy</td>
</tr>
<tr>
<td>Evaluate the effectiveness and constitutional implications of attempts to regulate interest groups and PACs.</td>
<td>Electioneering</td>
<td>Electioneering</td>
</tr>
<tr>
<td></td>
<td>Vocabulary Practice</td>
<td>Vocabulary Practice</td>
</tr>
</tbody>
</table>

### Test

<table>
<thead>
<tr>
<th>60 Multiple Choice Questions</th>
<th>4 Free Response Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Impact of new media on politics</td>
</tr>
<tr>
<td></td>
<td>2. Analysis of interest groups and techniques used to influence public policy</td>
</tr>
<tr>
<td></td>
<td>3. Evaluation of the Electoral College and its effect on elections</td>
</tr>
<tr>
<td></td>
<td>4. Analysis of the effect of confidence of voters in their government</td>
</tr>
</tbody>
</table>

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Appendix A.2.h Advanced Placement® Course Guides

AP® US Government and Politics
## AP US Government and Politics Course Syllabus

<table>
<thead>
<tr>
<th>Theme / Unit</th>
<th>Section Name</th>
<th>Objectives</th>
<th>Assessments</th>
<th>Content Plan</th>
</tr>
</thead>
</table>
| Unit 4: The Policymakers | Congress | Students will be able to:  
- Explain the Constitutional framework within which Congress operates.  
- Analyze the influences on Congressional policy making.  
- Evaluate the informal institutional arrangements of power within Congress.  
- Explain the functions of members of Congress (including representation, lawmaking, oversight, checks and balances). | Journal: Analyzing the Incumbency Advantage | Chapter 12: Congress  
- Members of Congress  
- Analyzing Article I of the Constitution  
- *League of United Latin American Citizens v. Perry* Video  
- The Redistricting Game  
- The Federalist Papers Reading Assignment  
- House versus Senate  
- Congress and Democracy  
- Tutorial: How a Bill Becomes a Law  
- Influences on Congress  
- Multiple Choice Practice: Congressional Committees  
- Free Response Practice: Congressional Committees and Leadership  
- Multiple Choice Practice: Congressional Voting  
- Study Guide: Congress |
### AP US Government and Politics Course Syllabus

<table>
<thead>
<tr>
<th>The Presidency</th>
<th>Students will be able to:</th>
<th>Journal: The Roles of the President</th>
<th>Chapter 13: Presidential Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Explain the Constitutional framework within which the President operates.</td>
<td>Analysis of Presidential Power and Signing Statements</td>
<td>Presidential Power</td>
</tr>
<tr>
<td></td>
<td>Describe the role of the executive branch in formulating and executing public policy.</td>
<td>Congress and the Presidency Quiz</td>
<td>Understanding the Presidency</td>
</tr>
<tr>
<td></td>
<td>Explain how the role of the president has changed throughout American history.</td>
<td></td>
<td>The Origins of Presidential Power</td>
</tr>
<tr>
<td></td>
<td>Analyze basis of increased presidential power and limitations of presidential power.</td>
<td></td>
<td>Web Quest</td>
</tr>
<tr>
<td></td>
<td>Analyze influences on presidential decisions making.</td>
<td></td>
<td>Article II of the Constitution Reading</td>
</tr>
<tr>
<td>The Federal Bureaucracy</td>
<td>Students will be able to:</td>
<td>Regulation v. Deregulation Debate</td>
<td>Chapter 15: The Federal Bureaucracy</td>
</tr>
<tr>
<td></td>
<td>Explain the Constitutional framework within which the Bureaucracy operates.</td>
<td></td>
<td>The Civil Service</td>
</tr>
<tr>
<td></td>
<td>Describe the nature and functions of bureaucracy.</td>
<td></td>
<td>The Federal Civil Service Crossword</td>
</tr>
<tr>
<td></td>
<td>Explain the growth and limitations of bureaucratic power.</td>
<td></td>
<td>The Role of Bureaucracy</td>
</tr>
<tr>
<td></td>
<td>Analyze the role of the bureaucracy as a policymaker and influences on bureaucratic policy making.</td>
<td></td>
<td>Oversight of Bureaucracy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Implementing Policy</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Regulatory Functions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Multiple Choice Practice: Regulatory Agencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Iron Triangles</td>
</tr>
</tbody>
</table>
### AP US Government and Politics Course Syllabus

**Federal Courts**

<table>
<thead>
<tr>
<th>Students will be able to:</th>
<th>Journal: Analysis of Selecting a Justice</th>
<th>Chapter 16: The Federal Courts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain the Constitutional framework for the Federal Courts.</td>
<td>Current Events Discussion:</td>
<td>Federalist No. 78 Reading</td>
</tr>
<tr>
<td>Describe the judicial process including the hierarchy of the courts and their jurisdictions.</td>
<td>Court Decisions in the News Today</td>
<td>Assignment</td>
</tr>
<tr>
<td>Analyze how the Judiciary is influenced by: public opinion and voters, interest groups, political parties, the media, and state and local governments.</td>
<td></td>
<td>Constitutional Basis for the Courts</td>
</tr>
<tr>
<td>Explain how the Judiciary operates as a check on other branches of government and how those other branches act to check its power.</td>
<td></td>
<td>Legal Vocabulary Crossword Puzzle</td>
</tr>
</tbody>
</table>

**Unit Test**

- 60 Multiple Choice Questions
- 4 Free Response Questions
  1. Explain reapportionment and redistricting
  2. Analyze war powers of Congress
  3. Examine legislative oversight of the federal bureaucracy
  4. Analyze the process for selecting Supreme Court Justices

- Federal and State Courts
- Judicial Selection
- Judicial Decision Making
- Judicial Review, Restraint, and Activism
- Federalism and The Supreme Court
- The Federal Bureaucracy and Federal Courts Review
## Theme/Unit: Economic Policy

### Section Name: Economic Policy

**Objectives**

Students will be able to:
- Describe the factors that influence the economic policy making process.
- Describe the budget process.
- Select a significant economic policy and trace its development, identifying the influences on its passage.

**Assessments**

- Journal: Analyze an Economic Policy Issue
- Economic Policy Quiz

**Content Plan**

- Chapter 14: The Congress, the President, and the Budget: The Politics of Taxing and Spending
- Chapter 17: Economic Policymaking
- Fact or Falsehood: The Federal Budget
- Ten Trillion and Counting Video and Video Guide
- Economic Policy
- Inside the Meltdown Video and Video Guide

### Section Name: Domestic and Social Policy

**Objectives**

Students will be able to:
- Describe the factors that influence the social policy making process.
- Select a significant social policy, identify its major provisions and trace its development, identifying the influences on its passage and implementation.

**Assessments**

- Journal: Analyze a Domestic/Social Policy Issue

**Content Plan**

- Chapter 18: Social Welfare Policymaking
- Chapter 19: Policymaking for Health Care and the Environment
- Domestic and Social Policy
- Domestic and Social Policy Crossword
- Analyzing Graph: Social Security
- Immigration Reform
- Sick Around America Video with Video Guide
- Poisoned Waters Video with Video Guide
# AP US Government and Politics Course Syllabus

<table>
<thead>
<tr>
<th>Theme /Unit</th>
<th>Section Name</th>
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<th>Assessments</th>
<th>Content Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing for the Exam</td>
<td></td>
<td>Students will be able to:</td>
<td></td>
<td>Taking the AP US Government Exam</td>
</tr>
<tr>
<td>The AP US Government Exam</td>
<td>Taking the Exam</td>
<td>Students will be able to:</td>
<td>Final Exam:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Demonstrate proficiency on the AP US Government Exam.</td>
<td>60 multiple choice questions 4 free response questions</td>
<td></td>
</tr>
</tbody>
</table>
ADVANCED PLACEMENT®
U.S. HISTORY
<table>
<thead>
<tr>
<th>Curricular Requirements</th>
<th>Syllabus Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR1a The course includes a college-level U.S. history textbook.</td>
<td>1</td>
</tr>
<tr>
<td>CR1b The course includes diverse primary sources consisting of written documents, maps, images, quantitative data (charts, graphs, tables), and works of art.</td>
<td>2, 3, 4, 6, 8, 10</td>
</tr>
<tr>
<td>CR1c The course includes secondary sources written by historians or scholars interpreting the past.</td>
<td>2, 3, 10, 13</td>
</tr>
<tr>
<td>CR2 Each of the course historical periods receives explicit attention.</td>
<td>3, 4, 5, 6, 9, 12, 14</td>
</tr>
<tr>
<td>CR3 The course provides opportunities for students to apply detailed and specific knowledge (such as names, chronology, facts, and events) to broader historical understandings.</td>
<td>6, 8, 14</td>
</tr>
<tr>
<td>CR4 The course provides students with opportunities for instruction in the learning objectives in each of the seven themes throughout the course, as described in the AP U.S. History curriculum framework.</td>
<td>1, 3, 4, 5, 6, 7, 9, 10, 11, 13</td>
</tr>
<tr>
<td>CR5 The course provides opportunities for students to develop coherent written arguments that have a thesis supported by relevant historical evidence. —Historical argumentation</td>
<td>4, 5, 8, 12</td>
</tr>
<tr>
<td>CR6 The course provides opportunities for students to identify and evaluate diverse historical interpretations. —Interpretation</td>
<td>11, 13</td>
</tr>
<tr>
<td>CR7 The course provides opportunities for students to analyze evidence about the past from diverse sources, such as written documents, maps, images, quantitative data (charts, graphs, tables), and works of art. —Appropriate use of historical evidence</td>
<td>5, 7</td>
</tr>
<tr>
<td>CR8 The course provides opportunities for students to examine relationships between causes and consequences of events or processes. —Historical causation</td>
<td>5, 10, 11, 12</td>
</tr>
<tr>
<td>CR9 The course provides opportunities for students to identify and analyze patterns of continuity and change over time and connect them to larger historical processes or themes. —Patterns of continuity and change over time</td>
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<td>CR13a The course provides opportunities for students to combine disparate, sometimes contradictory evidence from primary sources and secondary works in order to create a persuasive understanding of the past.</td>
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<td>CR13b The course provides opportunities for students to apply insights about the past to other historical contexts or circumstances, including the present.</td>
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Advanced Placement U.S. History

AP U.S. History is a college-level survey course of United States history from the pre-Colombian period to the present.

Themes

The course is structured both chronologically and thematically with support from the textbook and various primary and secondary sources. The seven themes from the AP U.S. History course description can be found woven throughout the units. [CR4] These themes include the following:

1. Identity (ID)
2. Work, Exchange, and Technology (WXT)
3. Peopling (PEO)
4. Politics and Power (POL)
5. America in the World (WOR)
6. Environment and Geography (ENV)
7. Ideas, Beliefs, and Culture (CUL)

Historical Thinking Skills

Activities and assessments in this course are designed around and utilize the historical thinking skills identified in the AP U.S. History course description. These skills include the following:

- Chronological Reasoning
  - Historical Causation
  - Patterns of Continuity and Change Over Time
  - Periodization
- Comparison and Contextualization
  - Comparison
  - Contextualization
- Crafting Historical Arguments from Historical Evidence
  - Historical Argumentation
  - Appropriate Use of Historical Evidence
- Historical Interpretation and Synthesis
  - Interpretation
  - Synthesis

Textbook

Fraser, James W. By the People: A History of the United States, AP® Edition.

Boston: Pearson, 2015 [CR1a]
**Primary Source Analysis:**

This course uses a variety of primary sources that the student can analyze for historical study and interpretation. In many cases, the student uses these sources as the evidential basis for a writing prompt. Specific examples of primary sources used throughout the course can be found in the unit descriptions of this syllabus. [CR1b]

**Secondary Sources:**

Secondary sources are scattered throughout the course and provide the student the opportunity to evaluate the author’s thesis based upon evidence that may or may not have been available to the author. Specific examples of secondary sources used throughout the course can be found in the unit descriptions of this syllabus. [CR1c]

**Writing Focus**

Historical writing, including synthetic development and evidential defense of a thesis, will be a main focus of this course. The student will regularly practice scholarly writing, and will be given opportunities to improve this skill based upon analysis of and comparison to both high- and low-quality sample responses to the same prompt. The grading of such writing will be based upon factors such as the strength of the thesis statement, the amount and quality of supporting evidence, the overall organization of the argument and, to a lesser extent, the mechanics of the writing itself.
Semester A

Unit 1: Can the Colonies Survive?

**Period 1:** 1491–1607  [CR2]
**Period 2:** 1607–1754

**Text Readings:** *By the People*, Chapters 1, 2, 3, and 4

**Major Topics:** In Unit 1, the student studies the diverse variety of social, political, and economic structures of Native American peoples before the arrival of Europeans (PEO-1); the first European contact with native peoples and the Columbian exchange (PEO-4) (WXT-1); national and personal reasons for colonization (ENV-1); British colonial evolution into three distinct regions (CUL-1) (ID-4) (ID-5) (CUL-4); and the rise of slavery in the colonies (ID-6) (POL-1).  [CR4]

**Primary Sources (sampling of examples, not full list):** *Description of Tenochtitlán* (1520); *Mayflower Compact, Model of Christian Charity* by John Winthrop; *Mayflower Compact mural* painted by Allyn Cox; *The Enlarged Salem Covenant of 1636*  [CR1b]

**Maps:** interactive map of 13 colonies; town map of colonial New England

**Secondary Sources:** *Slavery and Freedom: The American Paradox* by Edmund Morgan  [CR1c]

**Assignments and Assessments:** Complete homework questions on the topics listed above; primary source analysis where the student weighs the benefits of the New Laws of 1542; direct instruction and assessment on thesis writing; written essay for art analysis of the significance of the Mayflower Compact; long-essay response to one of these prompts: comparing Spanish and British colonization efforts, defending or refuting the claim that American society became more democratic in the period 1750–1780, analyzing how domestic and international trade shaped the New England and Chesapeake regions into distinct societies  [CR11]; essay comparing two native American cultures before European contact (ENV-2); multiple choice test on topics above
Unit 2: The Constitutional Challenge

**Period 2:** 1607–1754

**Period 3:** 1754–1800 [CR2]

**Text Readings:** *By the People*, Chapters 5 and 6

**Major Topics:** Unit 2 focuses on the birth of a new nation and the creation of the Constitution (ID-1) (ENV-3). The student will research and write about the events that led to the founding of this new nation of colonies, as well as the Founding Fathers and colonists who helped determine the path of the nation (WOR-2). [CR4]

**Primary Sources (sampling of examples, not full list):** *Paul Revere’s engraving of the Boston Massacre* (1770); *The Rights of the Colonists* by Sam Adams (1772); *Grenville Defends Britain’s Right to Tax* (1766); *Franklin Testifies About Colonial Loyalty* (1766); *Common Sense* by Thomas Paine (1776), *Declaration of Independence* (1776); *Articles of Confederation* (1777); *U.S. Constitution* (1787); *Federalist 10* and *Federalist 51* (1787)

**Image analysis:** *Paul Revere’s engraving of the Boston Massacre* (1770) [CR1b]

**Maps:** triangular trade map; selected events of the French and Indian War (interactive), North America before 1754 and after 1763

**Assignments and Assessments:** Write an argumentative essay persuading the king to continue or repeal mercantilist policies (WOR-1); document analyzer for Stamp Act sources; construct chronology of events leading to revolution; opening paragraph with thesis statement about the Articles of Confederation and how its features were developed to solve problems that were present under colonial rule by Great Britain [CR13b] (WOR-5); document-based question (DBQ) on ratification debate; essay (including a thesis statement and supporting historical evidence) defending or refuting the claim that the English colonies were settled haphazardly [CR5] (ENV-2); multiple choice test on topics above
Unit 3: The Dawn of a New Nation

Period 3: 1754–1800
Period 4: 1800–1848 [CR2]
Text Readings: By the People, Chapters 7, 8, and 9

Major Topics: In Unit 3, the student will closely follow the first several presidents and the establishment of a two-party political system (POL-2). The student will also spend some time learning how to analyze maps, political cartoons, and court documents. [CR4]

Primary Sources (sampling of examples, not full list): George Washington’s Inaugural Address (1789); George Washington’s Farewell Address (1796); George Washington’s Whiskey Rebellion Proclamation (1794); Hamilton’s Opinion as to the Constitutionality of the Bank of the United States (1791); The Alien and Sedition Acts (1798); Abigail Adams personal letter (1776); Martha Ballard Diary; The Interesting Narrative of the Life of Olaudah Equiano, or Gustavus Vassa, The African (1789); Monroe Doctrine (1823)

Image analysis: Embargo Act of 1807 political cartoon; Mad Tom in a Rage political cartoon (1802; presentation on how to analyze political cartoons) [CR7] (WXT-2)

Maps: map of the Lewis and Clark Expedition (ID-2); War of 1812 Gulf region; slavery in the United States 1790 vs. 1830; presentation on how to analyze historical maps

Assignments and Assessments: Assume role of Jefferson and Hamilton and write arguments related to the necessary and proper clause (WXT-6) (POL-5); historical interpretation opening paragraph and thesis on Adams’ presidency; Jefferson political cartoon analysis with respect to audience, argument, format, and purpose (sources for this activity are cited above) [CR7] (POL-6); long-essay on how contributions of women, African Americans, and Native Americans caused cultural shifts [CR8] (CUL-2); analysis of John Marshall Supreme Court opinions; essay identifying and defending a date that best describes the beginnings of American independence [CR5] [CR10]; multiple choice test on topics above; stimulus-based multiple choice test based on Units 1, 2, and 3; DBQ requiring students to explain how the French and Indian War altered the economic, political, and ideological relations between Great Britain and the American Colonies [CR9]

CR7—The course provides opportunities for students to analyze evidence about the past from diverse sources, such as written documents, maps, images, quantitative data (charts, graphs, tables), and works of art.

—Appropriate use of historical evidence

CR8—The course provides opportunities for students to examine relationships between causes and consequences of events or processes.

—Historical causation

CR10—The course provides opportunities for students to investigate and construct different models of historical periodization.

—Periodization
Unit 4: Antebellum America

Period 4: 1800–1848
Period 5: 1844–1877 [CR2]
Text Readings: By the People, Chapters 9, 10, 11, and 12

Major Topics: In Unit 4, the student will study the growth of the country in several areas, including population, land expansion (POL-6) (WOR-6), economics (WXT-5) (WXT-6), immigration (PEO-2), and reform movements (PEO-6) (CUL-5). [CR4]

Primary Sources (sampling of examples, not full list): Bank Veto Message (1832); Transcript of President Andrew Jackson’s Message to Congress “On Indian Removal” (1830); James Monroe calls for Indian removal (1825); Cherokee Wish to Stay on Their Land (1830)

Data analysis: voter participation in elections 1812–1840; number of different newspapers published in the United States 1775–1835 [CR1b]

Political cartoon analysis: King Andrew the First cartoon (1833)

Maps: Oregon Trail

Assignments and Assessments: Write opening paragraph and thesis for analysis of Andrew Jackson’s election in 1828 (POL-5); research then interview Andrew Jackson; DBQ defending or opposing the passage of the Indian Removal Act based on primary-source articles for and against its passage [CR13a] (ID-5) (POL-3) (PEO-5); essay identifying Thomas Jefferson or Andrew Jackson as the most-qualified claimant of the title “representative of the common man” [CR3]; multiple choice test on topics above

CR13a—The course provides opportunities for students to combine disparate, sometimes contradictory evidence from primary sources and secondary works in order to create a persuasive understanding of the past.

CR3—The course provides opportunities for students to apply detailed and specific knowledge (such as names, chronology, facts, and events) to broader historical understandings.
Unit 5: Sectional Strife Rising

Period 4: 1800–1848  
Period 5: 1844–1877  
Text Readings: By the People, Chapters 11, 12, and 13

Major Topics: In Unit 5, the student examines the growth of the abolitionist movement and the Southern defense of slavery in the pre-Civil War period (CUL-6). This examination includes the role of the Mexican War in fueling sectional tension about land and slavery, and the events of the 1850s and early days of the 1860s that resulted in Lincoln’s election and the Southern secession (WOR-6) [CR4].

Primary Sources (sampling of examples, not full list): Library of Congress collection of early anti-slavery sources; excerpt of Liberator (1831), Excerpt from Narrative of the Life of Frederick Douglass, an American Slave (1845); Letter to Garrison from Harriet Beecher Stowe (1853), Polk’s War Message (1846), Thoreau defends Harpers Ferry Raid (1859), John Brown defends himself (1859)

Data analysis:
chart differentiating between Northern and Southern economies in 1860

Maps: U.S. in 1860: Free States, Slave States, and Territories; Distribution of Votes in the House of Representatives on the Declaration of War, June 4, 1812; Routes of American Indian Removal, 1830s

Assignments and Assessments: Complete a long-essay on how supporters defended slavery (WXT-4); document analyzer for Mexican War; DBQ analyzing territorial expansion 1800–1855 and how opponents and supporters shaped public policy in various ways across this period (PEO-5); short answer analysis of works of art—that support either the Union or the Confederacy—explaining the artists’ purpose and argument and identifying evidence used (and ignored) by the by the artist in their claim that the Union or the Confederacy was “on the side of right” [CR7]; multiple choice test on topics above
Unit 6: The United States of America?

Period 5: 1844–1877
Text Readings: By the People, Chapters 14 and 15

Major Topics: In Unit 6, the student analyzes the Civil War and Reconstruction, including contributions of military generals, soldiers, African Americans, authors, and political leaders. The unit examines the tensions that defined the Civil War and the new tensions that Reconstruction policies sought to address (CUL-2).

Primary Sources (sampling of examples, not full list): Confederate and Union accounts of Fort Sumter (1861); the Gettysburg Address (1863); O Captain! My Captain! (1888) (CUL-3); Lincoln’s Second Inaugural Address (1865); various primary sources on PBS.org’s Reconstruction: The Second Civil War website

Political Cartoon analysis: And Not This Man? (1865)

Image analysis: Matthew Brady Civil War photographs [CR1b]

Data analysis: significant differences between the North and the South during the Civil War; Venn diagram of qualitative data comparing North, South, and West during the Civil War; bar graph of casualty rates of American wars

Maps: map of major Civil war battles 1861–63; African American and White Participation in Constitutional Conventions, 1867–1868

Assignments and Assessments: Analysis of Matthew Brady Civil War photographs; comparison of primary documents from Northern and Southern view of the events at Fort Sumter [CR11]; opening paragraph and thesis for essay of Civil War casualty rates; long-essay on contextualizing the causes of changes in Lincoln’s rhetoric from 1858 debates to the Emancipation Proclamation [CR12]; interpret graph of American war casualty rates; reconstruction primary document analysis (POL-5); essay supporting or refuting the claim (using evidence) that former slaves would identify the period following the Compromise of 1877 as “worse than slavery.” [CR3] [CR5] (POL-6); multiple choice test on topics above; stimulus-based multiple choice test based on Units 4, 5, and 6; DBQ where students support or refute a claim that the Constitution was partly to blame for the breakdown of the Union

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Semester B

Unit 1: The Gilded Age

Period 6: 1865–1898
Period 7: 1890–1945 [CR2]

Text Readings: By the People, Chapters 16, 17, and 18

Major Topics: In Unit 1, the student analyzes the extent to which society changed once Reconstruction ended in 1877 (CUL-3). Political corruption, westward expansion and new frontiers, new immigration, and Populist discontent and reform will all be examined (ENV-4) (ENV-5) (ID-7). [CR4]

Primary Sources (sampling of examples, not full list): Atlanta Compromise (1895); The Souls of Black Folk (1903); The Significance of the Frontier in American History (1893); Gospel of Wealth (1889); Ida Tarbell Criticizes Standard Oil (1904)

Political Cartoon analysis:
The Bosses of the Senate (1889)

Image analysis:
Female Typists photo (1902)

Data analysis:
European immigration 1871–1910; immigration 1880–1930; indexed price 1870–1899

Assignments and Assessments: Write diary of an Indian Fighter [CR12]; document analysis of various viewpoints on Standard Oil monopoly, write recommendation for public policy; creative writing piece on immigration and urban growth (WOR-3); one-paragraph reflection on the Gilded Age; change over time long-essay, choice of topics: Social Darwinism leading to conservatism and reform, immigration impact on American life, impact of industrialization on farmers during the Gilded Age [CR9] (WXT-3) (WXT-7); essay where students compare and contrast challenges and opportunities available to immigrants in the North and West between 1865–1910 (PEO-3); multiple choice test on topics above

CR12—The course provides opportunities for students to connect historical developments to specific circumstances of time and place, and to broader regional, national, or global processes.

—Contextualization

CR9—The course provides opportunities for students to identify and analyze patterns of continuity and change over time and connect them to larger historical processes or themes.

—Patterns of continuity
Unit 2: Progressive or Regressive? The Road to World War

Period 7: 1890–1945
Text Readings: By the People, Chapters 19 and 20

Major Topics: Unit 2 focuses on the expansion of the United States as a result of American imperialism (POL-6), a movement that bettered the lives of many Americans through progressive reforms (WXT-8), and a global conflict that had domestic and foreign consequences for the United States (ID-3) (WOR-4). [CR4]

Primary Sources (sampling of examples, not full list): Grover Cleveland Message to Congress (1893); The Jungle (1906); Carrie Chapman Catt address to Congress (1917); Eugene V. Debs speech at sentencing (1918); Wilson’s 14 Points Address (1918); competing statements from 1920 presidential candidates on foreign policy

Secondary Sources:

Maps:
Spanish American War Strategic Map; Allied and Central Powers of World War I [CR1b]

Political Cartoon analysis:
Sugar Means Ships World War I cartoon; Bad Trusts (1907)

Data analysis:
European immigration 1871–1910; immigration 1880–1930; indexed price 1870–1899

Assignments and Assessments: Complete a written analysis of competing primary sources on Hawaii annexation (statements by Queen Liliuokalani and Senator Albert Beveridge) [CR11] [CR13a]; multi-paragraph editorial supporting or refuting claim that yellow journalism caused the Spanish-American War [CR8] (WOR-7); reform movement document analysis; long-essay on arguments Wilson used for declaration of war; National Archives poster analysis; Treaty of Versailles DBQ; essay analyzing the success of progressive reformers in politics, urban life, and working conditions; multiple choice test on topics above

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Unit 3: It Was the Best of Times, It Was the Worst of Times

Period 7: 1890–1945
Text Readings: By the People, Chapters 21 and 22

Major Topics: In Unit 3, the student examines the 1920s, a decade filled with social, cultural, moral, and technological change (CUL-6) (CUL-7). Immigration restrictions, racial tension, evolving rights of women, and the stock market crash that sparked the Great Depression will all be analyzed (PEO-7) (ID-8) (ID-3). [CR4]

Primary Sources (sampling of examples, not full list): *four poems by Langston Hughes; What the Civilian Conservation Corps Is Doing for Colored Youth* (1937); *Civilian Conservation Corps Reforestation Relief Act* (1933)


Political Cartoon analysis: *It is Evolution not Revolution Gentleman* (1934)

Image analysis: government advertisement for Social Security (1935)

Data analysis: unemployment figures 1920–1945

Assignments and Assessments: Complete a first-person creative writing piece assuming role of 1920s’ figure; long-essay on what caused the economy to collapse in the 1920s [CR8]; primary document analyzer on Civilian Conservation Corps; short answer writing analyzing two descriptions of the New Deal and evaluating which one accurately assesses its effectiveness [CR6] [CR13a] (WXT-8) (POL-4); multiple choice test on topics above; stimulus-based multiple choice test based on Units 1, 2, and 3; DBQ describing the extent that women were affected by the political and economic developments during 1890–1925 [CR9]

CR8—The course provides opportunities for students to examine relationships between causes and consequences of events or processes.

—Historical causation

CR6—The course provides opportunities for students to identify and evaluate diverse historical interpretations.

—Interpretation

CR13a—The course provides opportunities for students to combine disparate, sometimes contradictory evidence from primary sources and secondary works in order to create a persuasive understanding of the past.
Unit 4: World War Once Again Plagues the Planet

Period 7: 1890–1945
Period 8: 1945–1980 [CR2]
Text Readings: By the People, Chapters 22, 23, and 24

Major Topics: In Unit 4, the student analyzes the foreign policy tensions of the 1930s that led to the outbreak of World War II. The war itself is examined with a focus on the foreign policies and military strategies of the United States, and the effect the war had on the American home front (ID-7). The unit ends with an analysis of the origins and early years of the Cold War (ID-3).

Primary Sources (sampling of examples, not full list): Franklin Roosevelt’s address to Congress after Pearl Harbor (1941); Japanese Americans Pledge Loyalty (1941); the Fourteenth Amendment (1868)

Political Cartoon analysis:
Who’s next to be liberated from freedom, comrade? (1948)

Image analysis:
The student creates a photomontage using images from a web-inquiry on the Holocaust.

Data analysis:
Gallup poll data on U.S.-Soviet relations 1945–1948

Assignments and Assessments: Complete an editorial arguing a position (isolation or intervention) on U.S. involvement in World War II based upon evidence available at the time [CR13b]; DBQ on internment of Japanese Americans, including interpretation of the Fourteenth Amendment—which was passed following the Civil War—to this era [CR13b]; web-inquiry on the Holocaust; creative writing assignment advising president on how the U.S. should act after World War II, describing expected outcomes from taking militaristic or diplomatic stances with the USSR [CR8]; essay providing evidence to defend or refute the claim that U.S. foreign-policy decisions during 1917–1945 were legitimized by the idea that the U.S. was making the world “safe for democracy” [CR5] (ID-3); multiple choice test on topics above

CR13b—The course provides opportunities for students to apply insights about the past to other historical contexts or circumstances, including the present.

CR5—The course provides opportunities for students to develop coherent written arguments that have a thesis supported by relevant historical evidence. —Historical argumentation

CR8—The course provides opportunities for students to examine relationships between causes and consequences of events or processes. —Historical causation
Unit 5: The Postwar Era

Period 8: 1945–1980
Text Readings: By the People, Chapters 24, 25, 26, and 27

Major Topics: In Unit 5, the student analyzes the two decades that followed World War II, with emphasis on the Red Scare, the civil rights movement, the Vietnam War, and the rise of protest movements (POL-7) (WOR-8) (CUL-6) (ID-8). [CR4]

Primary Sources (sampling of examples, not full list): Video clip of Joe McCarthy testimony (1954); Richard Nixon’s Checkers Speech (1952); Martin Luther King speech on Montgomery Bus Boycott (1955); John F. Kennedy civil rights address (1963); Martin Luther King’s I Have a Dream speech (1963); Malcolm X’s The Ballot or the Bullet speech (1964); Bob Dylan’s The Times They Are A-Changin’ (1964)


Political Cartoon analysis: Pursuit of Nixon Scandals (1973)

Image analysis:Untitled by Jackson Pollack (1951)

Data analysis:

Assignments and Assessments: Complete short answer writing contextualizing reasons why many Americans have an unfavorable view of Joe McCarthy; long-essay on the impact of Eisenhower’s presidency; speech analysis on civil rights movement rhetoric; DBQ on the evolution of the civil rights movement [CR9]; music review of Bob Dylan and the Beatles; short answer writing identifying one piece of evidence from the Cold War era that supports one of two differing viewpoints on the appropriateness of the government’s search for communists among its own ranks (sources for this question are cited in the “Secondary Sources” section above) [CR6]; multiple choice test on topics above

CR1c—The course includes secondary sources written by historians or scholars interpreting the past.

CR9—The course provides opportunities for students to identify and analyze patterns of continuity and change over time and connect them to larger historical processes or themes.
—Patterns of continuity and change over time

CR6—The course provides opportunities for students to identify and evaluate diverse historical interpretations.
—Interpretation
Unit 6: A New Age... A New Era

Period 8: 1945–1980
Text Readings: By the People, Chapters 27, 28, 29, and 30

Major Topics: In Unit 6, the student examines the most recent era of U.S. history with emphasis on scandals, the end of the Cold War, the changing nature of terrorism, new technologies, and expanding equal protection for more groups of Americans (POL-4) (WOR-8).

Primary Sources (sampling of examples, not full list): Watergate audiotapes

Data analysis:

Assignments and Assessments: Complete a comparison chart of Presidents Ford and Carter and a paragraph arguing which president was most effective; creative writing time capsule [CR10]; ranking historical events paragraph [CR11]; essay assessing the importance and pervasiveness of new technologies from the last two or three decades on economics, society, and politics [CR3] (CUL-7); multiple choice test on topics above; stimulus-based multiple choice test based on Units 4, 5, and 6; short answer writing identifying one piece of evidence from the late 1990s or early twenty-first century that supports one of two differing viewpoints on the cause of the collapse of the Soviet Union; short answer writing explaining the link between controversial government programs and the outcome of the election of 2012

CR1—The course provides opportunities for students to compare historical developments across or within societies in various chronological and geographical contexts.

CR10—The course provides opportunities for students to investigate and construct different models of historical periodization.

CR3—The course provides opportunities for students to apply detailed and specific knowledge (such as names, chronology, facts, and events) to broader historical understandings.
APPENDIX A
CURRICULUM

A.3 ELECTIVES AND OTHER COURSES
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# High School Additional Courses (9-12)

|----------------------------------------------------------|-----------------------|---------------------------------------|------------------------|------------------|-----------------|

# High School Elective Courses (9-12)

## Technology
- 3D Art I – Modeling (STEM)
- Business Keyboarding (STEM)
- Digital Arts I (STEM)
- Emergent Computer Technology (STEM)
- Engineering Design I (STEM)
- Game Design (STEM)
- Intro to Computers & Information Technology: IC3 A & B (STEM)
- Java Programming I & II (STEM)
- Learning Microsoft Office 2010 A & B (STEM)
- Web Design I A & B (STEM)

## Health and Physical Education
- Health, Fitness, and Nutrition A & B
- Personal Fitness (STEM)
- Physical Education

## Humanities
- Art History A & B
- Digital Photography (STEM)
- Living Music I and II
- Chinese I A & B, II A & B, and III A & B
- German I A & B, II A & B, and III A & B
- Japanese I A & Band II A & B
- Latin I A & B, II A & B, and III A & B
- Sign Language I A and IIA

## Other Courses
- Introduction to Entrepreneurship I & II
- Critical Thinking and Study Skills
- Life Management Skills
- College Prep with ACT
- College Prep with SAT
- Drivers Education

## Language Arts
- Journalism A & B
- Speech and Debate

## Science
- Earth Space Science A & B (STEM)
- Environmental Science A & B (STEM)
- Marine Science A & B (STEM)

## Math
- Statistics A & B (STEM)

## Social Studies
- Psychology A & B

Note: All courses marked in blue are STEM courses
# High School 9-12 – Elective Courses

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Note: All courses marked in blue are STEM courses
ELEMENTARY SCHOOL ELECTIVE COURSES (K-5)

ELEMENTARY CHINESE I

Availability: Grades 3-5

Chinese I is an introductory-level course that will introduce the student to Mandarin Chinese. The units are designed to introduce the student to Chinese language and culture through familiar topics such as my family, my week, and food. Culture is presented throughout the course to help the student make connections between his culture and the culture of people in the Mandarin-speaking world.

Units

My World

You will begin to study Mandarin, the official language of China and many other countries. Millions of people around the world speak Mandarin. This unit will teach you about Mandarin's importance in the world. You will also learn Mandarin words that describe your family. By the end of the unit, you will know how to introduce yourself and your family to others.

My Time

How is your life different from the life of a student who speaks Mandarin? In this unit, you will learn how students spend their time in countries where Mandarin is spoken. You will look for ways their activities are alike and different from yours. This unit will also introduce you to the Mandarin words that describe your everyday activities and time at school.

My Food

All cultures have different traditional foods, these are foods that are eaten for special occasions or have been eaten since a long time ago. Just like you have your own food traditions, other cultures have their own food traditions, too. In this unit, you will learn about food customs in Mandarin-speaking countries. You will also learn words that describe food in Mandarin.
**ELEMENTARY CHINESE II**

Availability: **Grades 3-5**

In this course, the student will further develop communication skills in Mandarin Chinese at a more advanced level. The student will continue to learn about Chinese culture by exploring historic places in China and other Mandarin-speaking countries, and by learning about holidays and special traditions celebrated there. In addition, the student will practice Mandarin Chinese skills by continuing to converse with a native Mandarin speaker.

**Units**

**My Travels**

You will take a trip through historical places in China and other Mandarin-speaking countries. During this experience, you will learn to describe people, yourself, places, and types of transportation.

**My Holidays**

What holidays do you celebrate? The people in the Mandarin-speaking world may celebrate some of your favorite holidays. They also have their own special holidays, too. In this unit, you will learn about the important holidays celebrated in China and other Mandarin-speaking countries. You will learn about why the holiday is celebrated, its history, and its importance to students your age in the Mandarin-speaking world. You will compare what you learn about the Mandarin-speaking world with your own country.

**My Home**

What are homes like in the Mandarin-speaking world? How are they different from homes in the United States? In this unit, you will learn about a typical home in some Mandarin-speaking countries, including the uses for different rooms of the home. You will find out how the activities that happen in the rooms are alike and different from yours. In this unit, you will also learn the names of some objects that can be found in a home, like furniture, clothes, flowers, and pets.
**ELEMENTARY SPANISH I**

Availability: **Grades 3-5**

Elementary Spanish I is an introductory-level course that will introduce the student to Spanish. The units are designed to introduce the student to Spanish language and culture through familiar topics such as family and friends, my home, and food. Culture is presented throughout the course to help the student make connections between his culture and the culture of people in the Spanish-speaking world.

**Units**

**My Family and Friends**

Did you know that millions of people speak Spanish in countries all around the world? In this unit, you will begin your study of Spanish, the language of Spain and many other countries. This unit will teach you about the importance of Spanish to the world at large, as well as where the language comes from and the different ways it is spoken. You will also learn the Spanish words for the members of your family, how to say your name and where you are from, and how to count from 1 to 10. By the end of the unit, you will know the expressions to introduce yourself and your family to others.

**My Home**

How does your home life compare to that of a student in the Spanish-speaking world? In this unit, you will learn about the housing and lifestyle of a Spanish-speaking student.

You will be introduced to the Spanish words for the rooms of a house, as well as the activities and traditions that relate to those rooms. This unit will also introduce you to the Spanish words for objects and actions related to each room, how to count from 11 to 19, and how to count from 20 to 100 by tens.

**My Food**

What kinds of food do people eat in the Spanish-speaking world? In this unit, you will take a trip through South America to learn about the popular food and drinks of several Spanish-speaking countries. You will be introduced to Spanish words related to mealtime, learn about Spanish dining traditions, and compare the dishes eaten in the Spanish-speaking world with those eaten in the U.S.
**ELEMENTARY SPANISH II**

Availability: **Grades 3-5**

Elementary Spanish II enables the student to further develop the communicative skills of listening, speaking, reading, and writing of Spanish at a more advanced level. The units are designed to develop the student’s knowledge of Spanish language and culture through familiar topics such as my school, my clothes, and my community. Culture is presented throughout the course to help the student make connections between his culture and the culture of people in the Spanish-speaking world.

**Units**

**My School**
What is a normal day of school like in the Spanish-speaking world? In this unit, you will learn about the daily life of a student in Puerto Rico. You will be introduced to the Spanish words related to school, including people and objects found in classrooms, as well as activities that take place at school. You will also explore Puerto Rico and other Spanish-speaking countries to learn about the local cultural traditions, sports, and wildlife.

**My Clothes**
How does clothing in the Spanish-speaking world compare to what people wear in the U.S.? In this unit, you will learn about the different styles of clothing native to the Spanish-speaking world. You will also explore the widespread influence of Spanish culture in the U.S. Lastly, you will learn the Spanish words for pieces of clothing for each season, and you will be introduced to some important Spanish Americans.

**My Community**
How important are communities in the Spanish-speaking world? In this unit, you will experience life in an average Central American neighborhood and learn about the strong sense of community in the Spanish-speaking world. You will be introduced to some Spanish words for the buildings, people, and activities that make a town lively and fun.
EXPERIENCING MUSIC I

Available: Grades K-2

Designed for students in grades K–2, this course explores differences between music and everyday sounds, and also how the body hears and responds to music. Aligning to the National Core Arts Standards, the course introduces skills that assist the student in making music individually and with another person. The student will identify instrument characteristics and sounds and begin to consider the way music of the student’s own culture might sound different to a person from another culture. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience.

Units

Music and Me!
Your student will begin to explore the differences between sound and music. He will begin by differentiating between sounds and musical patterns. Over the course of the unit, your student will explore ways in which people listen to and create music. This exploration will include performing simple melodies with his voice and with an instrument.

Fast and Slow, Stop and Go
Your student will learn to recognize simple rhythms using ta, ti-ti, and sh. Your student will use her listening skills to move her body in appropriate ways to match musical patterns. As she explores rhythm, your student will learn to recognize and perform rhythmic patterns and melodies with changes in tempo.

High and Low, Loud and Soft
Your student will use his listening skills to identify high and low pitches, and soft and loud sounds. He will move his body in appropriate ways to symbolize extremes of pitch and dynamic contrast. He will also learn the names for the pitches that make up the scale on the Virtual Xylophone.

Music Around the World
Your student will identify characteristics and sounds related to a selection of instruments and music from around the world. She will create instruments from various cultures. Finally, she will write her own song about her family’s background and culture.
EXPERIENCING MUSIC II

Available: Grades K-2

Designed for students in grades K–2, this course introduces younger students to the basic components of music: melody and rhythm. Aligning to the National Core Arts Standards, the course teaches the student to explore an individual voice by creating beats and rhythms. In addition, the student will use critical listening skills to analyze music while participating in interactive experiences. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience.

Units

Singing, Moving, and Shaking!

Focusing on Music Standards 1 and 2, your student will learn how to use the human body to experience and create music. He will explore the differences between rhythm and beat by using body percussion and learning about the one instrument people carry everywhere: the human voice.

A Musical Adventure!

Students will create melodies and rhythm patterns through basic symbols and notation. Students will experience these concepts through a variety of instructional strategies that induce engagement of aural, tactile, and kinesthetic learning components.

High, Low, Loud, Soft!

Your student will use his listening skills to identify and explain high, low, soft, and loud sounds.

Sound Familiar?

Your student will identify characteristics and traits of American folk music and connect those traits to the music and instruments from three different cultures around the world.
EXPERIENCING MUSIC III

Availability: Grades K-2

Designed for students in grades K–2, this course deepens the student’s understanding of the roles musicians play in today's society. Aligning to the National Core Arts Standards, this course uses dynamic media to help the student discover a musical identity while expanding knowledge of the foundations of music. The student will apply foundational knowledge to different musical styles and literature. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience.

Units

Creative Foundations
Your student will explore musical concepts. He will learn about new rhythms and experience melodic contour through movement and performance.

A Musician’s Role
Your student will gain an understanding of different musical roles. She will learn how being a composer, performer, and listener changes interpretation of music.

The Art of Music
Your student will experience different forms of art. He will integrate another discipline of art into his own work.

Musical Cultures
Your student will explore the music she engages in. She will share her musical culture and compare it with various other musical identities.
**ELEMENTARY SIGN LANGUAGE**

Available: **Grades K-5**

In this course, students are introduced to the fundamental concepts of American Sign Language. Students explore vocabulary, grammar, and conversational skills using basic signing and fingerspelling techniques.

**Units**

**Introduction**

Your student will be introduced to American Sign Language, or ASL. He will study the history of ASL and learn how it became the standard language for deaf and hard of hearing people in North America. He will also learn about some of the accepted rules of etiquette in Deaf culture. This introductory unit also teaches your student how to sign the letters of the alphabet and the mechanics of fingerspelling.

**Numbers**

This unit introduces the signing of numbers. Your student will learn how to sign numbers 1–100, as well as the signs for dollars and cents. A variety of fun activities give your student a chance to practice using ASL to discuss counting and using money.

**Time**

Your student will study various aspects of time. Not only will he learn how to communicate time using ASL, he will also learn the signs for the 7 days of the week and the 12 months of the year. The signs for various holidays as well as the four seasons are also taught in this unit.

**Nouns**

Your student will learn the signs for some commonly used nouns. The categories of family, places, food, colors, and animals are explored as your student practices these signs to add to her growing library of American Sign Language knowledge.

**Descriptions**

The lessons in this unit will teach your student how to sign various descriptions using American Sign Language. He will learn how to sign descriptive words that express feelings, sizes, possessions, and locations. In addition, he will combine some previously taught signs for numbers, time, and nouns, with descriptive signs taught in this unit.
HOME LIFE

Available: Grades K-5

Here, students select from a number of projects that develop skills through fun, experiential learning projects. Activities include cooking, crafts, sewing, home maintenance, family outings, and genealogy. Recently added projects include Lemonade Stand and Backyard Ecosystems.

Units

In the Kitchen
Explore and complete projects using kitchen implements and recipes. And as an added benefit, you get to eat your project!

In the Garage
Choose from an assortment of activities that use many of the tools you will find right in your garage. Activities include home and car maintenance, building a functional birdhouse, and building your own bridge.

In the Store
Learn how to manage your money and practice your entrepreneurial skills by building a lemonade stand business.

In the Garden
Choose from activities that include planting an herb garden, exploring your environment and your backyard ecosystem, orienteering, and stargazing.

In the Family
Plan and participate in a variety of enjoyable family activities. You may choose to plan a family outing, research your genealogy, research and play board games, improve the care of your pet, and/or create your own product using textiles.
WEBQUEST (STEM FOCUSED)

Availability: Grades K-5

Students help scientists monitor frog and toad populations across the country using FrogWatch USA™. Managed by the Association of Zoos & Aquariums, FrogWatch USA uses data collected by students to develop new ways to protect amphibians, which are extremely sensitive to ecological changes. Students visit a local wetland site once a week, make careful observations, and submit their data online. This online project joins students from other schools supported by Connections throughout the country and scientists around the country as they gather and analyze data.
DISCOVERING MUSIC I

Availability: Grades 3-5

Designed for students in grades 3–5, this course teaches fundamental musicianship skills from a Western-Classical approach, while aligning to the National Core Arts Standards. The course challenges the student to improve listening, notation, analysis, performance, and improvisation skills. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience.

Units

Expressing Groovy Beats

Your student will learn the rhythmic notation found in music. Performing at a steady tempo with proper rhythms is essential to any great musician. Upon learning the value in beats of basic notes and rests, your student will read, perform, and compose rhythms at a steady tempo in various time signatures. Your student will also learn expressive markings in music for dynamic levels and tempo changes. In addition, your student will explore the Virtual Music Tools, using them to perform, compose, and improvise music.

Musical Palette

Your student will learn the notation for pitch found in classical and popular music. The ability to interpret standard notation will enable your student to read, perform, and compose music. Pitch-related concepts of music theory will be learned and applied to these skills. Your student will learn expressive markings in music notation for reading, composing, and performing music.

Instrument Family Reunion

Your student will explore the different instrument families found in the standard orchestra. Your student will learn to identify the sections of the orchestra and the individual instruments within them. Instruments will be compared by traits including size, construction, appearance, and sound. The role of the conductor will also be introduced. Your student will practice reading, performing, and composing music with the sounds of various instruments.

Traveling Through Time: A Musical Journey

This unit will introduce the historical timeline of western Classical music from the fifteenth through twenty-first centuries. Students will learn the organization of this timeline into major style periods. The important composers, compositional techniques, and musical characteristics of each style period will be explored.
**DISCOVERING MUSIC II**

Availability: **Grades 3-5**

Designed for students in grades 3–5, this course builds on fundamental musicianship skills introduced in Discovering Music I. Aligning to the National Core Arts Standards, the course teaches the student to explore new concepts in rhythm and notation, as well as improve listening, notation, analysis, performance, and improvisation skills. The student will use a basic understanding of the orchestra to explore instrumentation and orchestration in more depth, and analyze compositional style from a range of periods. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience. Discovering Music I is a prerequisite for this course.

**Units**

**Rock-Solid Rhythm**
Your student will review knowledge of rhythm and practice recognizing rhythmic patterns by sight and sound. New types of note values, rests, rhythmic patterns, and time signatures will be introduced and explored. These concepts will be used in combination with previously learned notes and patterns as your student develops a sense of rhythmic security.

**Musical Tapestry**
Your student will improve her ability to recognize pitches on the grand staff. Your student will review the key signatures and scales she has already learned while also learning new ones. Learning more about harmony will enable her to change music to different keys. She will compare the sounds of different articulations, scales, and harmonies while examining their impact on music.

**Colors of the Orchestra**
Your student will review his knowledge of the orchestra. Your student will take a closer look at the differences among instruments within families of the orchestra. His ability to recognize their individual sounds will improve. Lastly, your student will learn about arranging instruments and how instruments interact together.

**Musical Makings**
Your student will get to know some famous composers and explore their musical styles. She will be introduced to new composers from each time period and learn more about composers previously studied. Lastly, your student will discover how history and culture shaped music around the world.
DISCOVERING MUSIC III

Availability: Grades 3-5

Designed for students in grades 3–5, this course enhances the student's knowledge of musical cultures as he or she discovers a musical identity. Aligning to the National Core Arts Standards, this course provides the student with engaging opportunities to combine musical knowledge with an exploration of different art forms to create new personal works. The student will apply foundational knowledge of music to a variety of musical styles and cultures. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience. Discovering Music I and Discovering Music II are prerequisites for this course.

Units

Creative Foundations
You will learn about the elements of music and learn how musicians skillfully use these elements to create and perform music. You will also apply your knowledge of the elements of music to create and perform music yourself.

Many Musical Roles
You will gain a deeper understanding of different musical roles. You will learn how being a composer, performer, and listener changes your interpretation of music.

Musical Influences
You will explore different forms of art. You will integrate another discipline of art into your own work while exploring the combination of music with other arts throughout history.

A Musical Community
You will explore the music you engage in. You will share your musical culture with others and explore the various musical identities of your peers.
**MIDDLE SCHOOL ELECTIVE COURSES (6-8)**

**MIDDLE CHINESE I**

Availability: Grades 6-8

Chinese I is an introductory-level course that will introduce the student to Mandarin Chinese. The units are designed to introduce the student to Chinese language and culture through familiar topics such as my family, my week, and food. Culture is presented throughout the course to help the student make connections between his culture and the culture of people in the Mandarin-speaking world.

**Units**

**My World**

In this unit, you will begin to study Mandarin, the official language of China and many other countries. Millions of people around the world speak Mandarin. This unit will teach you about Mandarin's importance in the world. You will also learn Mandarin words that describe your family. By the end of the unit, you will know how to introduce yourself and your family to others.

**My Time**

How is your life different from the life of a student who speaks Mandarin? In this unit, you will learn how students spend their time in countries where Mandarin is spoken. You will look for ways their activities are alike and different from yours. This unit will also introduce you to the Mandarin words that describe everyday activities and time at school.

**My Food**

All cultures have different traditional foods, these are foods that are eaten for special occasions or have been eaten for a very long time. Just like you have your own food traditions, other cultures have their own food traditions, too. In this unit, you will learn about food customs in Mandarin-speaking countries. You will also learn Mandarin terms that describe food.
**MIDDLE CHINESE II**

Availability: **Grades 6-8**

Middle Chinese II enables the student to further develop his communication skills as studies Mandarin Chinese at a more advanced level. The student will continue to learn about Chinese culture as the student studies about historic places in China and other Mandarin-speaking countries and learns of the holidays and special traditions celebrated there. The student will practice his acquisition of Mandarin Chinese skills by continuing to converse with a native Mandarin speaker.

**Units**

**My Travels**

In this unit, you will take a trip through historical places in China and other Mandarin-speaking countries. During this experience, you will learn to describe people, yourself, places, and types of transportation.

**My Holidays**

What holidays do you celebrate? The people in the Mandarin-speaking world may celebrate similar holidays. They also have their own special holidays. In this unit, you will learn about the important holidays celebrated in China and other Mandarin-speaking countries. You will learn about why the holiday is celebrated, its history, and its importance to students your age in the Mandarin-speaking world. You will compare what you learn about the Mandarin-speaking world with your own country.

**My Home**

What are homes like in the Mandarin-speaking world? How are they different from homes in the United States? In this unit, you will learn about a typical home in some Mandarin-speaking countries, including the uses for different rooms of the home. You will find out how the activities that happen in the rooms are alike and different from yours. In this unit, you will also learn the names of some objects that can be found in a home, like furniture, clothes, flowers, and pets. Finally, in this unit, you will learn some stories and traditions about home life in the Mandarin-speaking world.
**MIDDLE SPANISH I**

**Availability:** Grades 6-8

Middle Spanish I is an introductory-level course that will introduce the student to Spanish. The units are designed to introduce the student to Spanish language and culture through familiar topics such as my family, my week, and food. Culture is presented throughout the course to help the student make connections between his culture and the culture of people in the Spanish-speaking world.

**Units**

**My Family and Friends**

Did you know that millions of people speak Spanish in countries all around the world? In this unit, you will begin your study of Spanish, the language of Spain and many other countries. This unit will teach you about the importance of Spanish to the world at large, as well as where the language comes from and the different ways it is spoken. You will also learn the Spanish words for the members of your family, how to say your name and where you are from, and how to count from 1 to 10. By the end of the unit, you will know the expressions to introduce yourself and your family to others.

**My Home**

How does your home life compare to that of a student in the Spanish-speaking world? In this unit, you will learn about the housing and lifestyle of a Spanish-speaking student. You will be introduced to the Spanish words for the rooms of a house, as well as the activities and traditions that relate to those rooms. This unit will also introduce you to the Spanish words for objects and actions related to each room, how to count from 11 to 19, and how to count from 20 to 100 by tens.

**My Food**

What kind of food do people eat in the Spanish-speaking world? In this unit, you will take a trip through South America to learn about the popular food and drinks of several Spanish-speaking countries. You will be introduced to Spanish words related to mealtime, learn about Spanish dining traditions, and compare the dishes eaten in the Spanish-speaking world with those eaten in the U.S.
**MIDDLE SPANISH II**

Availability: Grades 6-8

Middle Spanish II enables the student to further develop the communicative skills of listening, speaking, reading, and writing of Spanish at a more advanced level. The units are designed to develop the student’s knowledge of Spanish language and culture through familiar topics such as my school, my family, and my neighborhood. Culture is presented throughout the course to help the student make connections between his culture and the culture of people in the Spanish-speaking world.

**Units**

**My School**

What is a normal day of school like in the Spanish-speaking world? In this unit, you will learn about the daily life of a student in Puerto Rico. You will be introduced to the Spanish words related to school, including people and objects found in classrooms, as well as activities that take place at school. You will also explore Puerto Rico and other Spanish-speaking countries to learn about the local cultural traditions, sports, and wildlife.

**My Clothes**

How does clothing in the Spanish-speaking world compare to what people wear in the U.S.? In this unit, you will learn about the different styles of clothing native to the Spanish-speaking world. You will also explore the widespread influence of Spanish culture in the U.S. Lastly, you will learn the Spanish words for pieces of clothing for each season, and you will be introduced to some important Spanish Americans.

**My Neighborhood**

How important are communities in the Spanish-speaking world? In this unit, you will experience life in an average Central American neighborhood and learn about the strong sense of community in the Spanish-speaking world. You will be introduced to some Spanish words for the buildings, people, and activities that make a town lively and fun.
EXPLORING MUSIC I

Availability: Grade 6-8

Designed for students in grades 6–8, this course teaches fundamental musicianship skills approached from a Western-Classical style, while aligning to National Core Arts Standards. The course challenges the student to improve listening, notation, analysis, performance, and improvisation skills. With audio, visual, and interactive technologies, the course provides a unique and advanced learning experience for the student.

Units

Feel the Pulse
You will learn the rhythmic notation found in standard music. Performing rhythms accurately and at a steady tempo is an essential skill for any musician.

Building Blocks
You will learn the notation of pitch. The ability to read and write music allows you to read and perform standard musical works and create your own compositions to share with the rest of the world.

What Is an Orchestra?
You will learn about the orchestra, the families of instruments, and their roles in making the characteristic sound of the orchestra. Composing and arranging activities will further develop your understanding.

Time Travel
You will look at various periods of development over the course of music history. You will examine the lives and works of some of the great composers of Western classical music, as well as the tools they used to compose their masterpieces. The unit will end with a composition assessment and a unit test.
**EXPLORING MUSIC II**

Availability: **Grades 6-8**

Designed for students in grades 6–8, this course reviews and expands fundamental musicianship skills approached from a Western-Classical style, while aligning to the National Core Arts Standards. The student will review and expand basic skills and concepts of rhythm and notation that were introduced in Exploring Music I. The student will use classic repertoire to analyze compositional style and improve listening, notation, analysis, performance, and improvisation skills. With audio, visual, and interactive technologies, the course provides a unique and advanced learning experience. Exploring Music I is a prerequisite for this course.

**Units**

**Cool Pulsations**
You will review essential elements of music such as rhythmic notation, reading notes on a staff, composing basic forms and phrases, and identifying key terms that relate to tempo and dynamics. For much of this unit, you will be refreshing skills you have already acquired, but you will be introduced to new concepts and skills as well. You will need to download Finale NotePad® and the Virtual Music Tools to complete a variety of activities.

**Absolutely**
You will review basic music notation and build on the fundamentals to learn advanced concepts in pitch and enhance your understanding of musical structures. You will learn about intervals, scales, and chords, and apply these elements in listening, thinking about, reading, playing, and composing music.

**Stylistic Imprints**
You will take a historical journey and learn about the major style periods and composers of Western classical music. You will also learn about the compositional techniques from these style periods, which will help you understand how music was written. This will enable you to compose and perform music from different style periods with authenticity.

**Architecturally Sound**
You will learn how to analyze music while using technical terms and constructs. This unit explores the idea of organized sounds. The study of how sounds are put together to form a musical composition will aid you in analyzing and critiquing music. You will learn the elements of music and how to apply these elements to an interpretation of a musical composition through hearing, thinking, reading, playing, and composing.
EXPLORING MUSIC III

Availability: Grades 6-8

Designed for students in grades 6–8, this course enhances the student's knowledge of musical cultures as he or she discovers a musical identity. Aligning to the National Core Arts Standards, this course provides the student with engaging opportunities to combine musical knowledge with an exploration of different art forms to create new personal works. The student will apply foundational knowledge of music to a variety of musical styles and cultures. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience. Exploring Music I and Exploring Music II are prerequisites for this course.

Units

Creative Foundations
You will review the foundations of music and observe how musicians engage in the fundamentals to create original works of music. You will explore these topics through your own performance and composition.

A Musician’s Role
You will gain a deeper understanding of different musical roles. You will learn how being a composer, performer, and listener affects your relationship to music.

The Art of Music
In this unit, you will explore different forms of art. You will combine music with another form of art while exploring the historical context of multidisciplinary art.

Musical Cultures
You will work to understand the various factors that influence musical styles and preferences. You will do this by developing an understanding of personal tastes, input of cultural practices, available resources, and varied genres.
MIDDLE SIGN LANGUAGE

Availability: Grades 6-8

In this course, students are introduced to the fundamental concepts of American Sign Language. Students explore vocabulary, grammar, and conversational skills using basic signing and fingerspelling techniques.

Units

Introduction

Your student will be introduced to American Sign Language, or ASL. He will study the history of ASL and learn how it became the standard language for deaf and hard of hearing people in North America. He will also learn about some of the accepted rules of etiquette in Deaf culture. This introductory unit also teaches your student how to sign the letters of the alphabet and the mechanics of fingerspelling.

Numbers

This unit introduces the signing of numbers. Your student will learn how to sign numbers 1–100, as well as the signs for dollars and cents. A variety of fun activities give your student a chance to practice using ASL to discuss counting and using money.

Time

Your student will study various aspects of time. Not only will he learn how to communicate time using ASL, he will also learn the signs for the 7 days of the week and the 12 months of the year. The signs for various holidays as well as the four seasons are also taught in this unit.

Nouns

Your student will learn the signs for some commonly used nouns and pronouns. She will also be introduced to the ASL concepts of Indexing, Agency, and Nonmanual Markers. Combining these new concepts and the signs your student has learned will expand her growing library of American Sign Language knowledge.

Descriptions

This unit will teach your student how to sign various descriptions using American Sign Language. He will learn how to sign comparative adjectives and show comparison between two or more nouns or pronouns. Also, he will learn the signs for descriptive words that express size, shape, possession, color, and location. In addition, he will combine some previously taught signs for numbers, time, and nouns, with descriptive signs taught in this unit.
HOME LIFE

Availability: Grades 6-8

Here, students select from a number of projects that develop skills through fun, experiential learning projects. Activities include cooking, crafts, sewing, home maintenance, family outings, and genealogy. Recently added projects include Lemonade Stand and Backyard Ecosystems.

Units

In the Kitchen
Explore and complete projects using kitchen implements and recipes. And as an added benefit, you get to eat your project!

In the Garage
Choose from an assortment of activities that use many of the tools you will find right in your garage. Activities include home and car maintenance, building a functional birdhouse, and building your own bridge.

In the Store
Learn how to manage your money and practice your entrepreneurial skills by building a lemonade stand business.

In the Garden
Choose from activities that include planting an herb garden, exploring your environment and your backyard ecosystem, orienteering, and stargazing.

In the Family
Plan and participate in a variety of enjoyable family activities. You may choose to plan a family outing, research your genealogy, research and play board games, improve the care of your pet, and/or create your own product using textiles.
WEBQUEST (STEM FOCUSED)

Availability: Grades 6-8

Students help scientists monitor frog and toad populations across the country using FrogWatch USA™. Managed by the Association of Zoos & Aquariums, FrogWatch USA uses data collected by students to develop new ways to protect amphibians, which are extremely sensitive to ecological changes. Students visit a local wetland site once a week, make careful observations, and submit their data online. This online project joins students from schools supported by Connections throughout the country and scientists around the country as they gather and analyze data.
DIGITAL ARTS I (STEM FOCUSED)

Availability: Grades 6-8

In this course you will become familiar with basic concepts essentially to visual and digital art, such as line, shape, form, color, value, space, and texture. Using Inkscape, a free open-source program, you will also develop core artistic skills through the creation of original digital art. You will have the opportunity to express yourself as well through a course-long art project that involves the creation of a still life scene.

Units

Course Overview
You will learn how to use the course technology. You will learn how to navigate through the course, find and zip files, set up your Web browser, and complete coursework. You will also learn about using trustworthy sources, avoiding plagiarism, and making proper citations.

Introduction to Digital Art
You will learn about basic concepts that inform visual arts, digital arts, and computer graphics. You will also start to learn how to use Inkscape, a software program for creating digital art.

Lines
You will explore the use of lines in art. Using Inkscape, you will create different types of lines, including a special kind of curve called the Bezier Curve. You will also start an art project that you will continue to work on throughout the course. This project will involve the creation of a still life scene depicting a glass, a decanter, and a bowl of fruit.

Shape and Form
You will explore the use of shapes and forms in art. Using Inkscape, you will create different types of shapes. You will also continue with your art project, adding shapes and forms to your still life.

Color
You will learn how color is related to light and how color is used in art. You will use Inkscape’s color sliders to practice using color. You will also continue with your art project, adding grapes and colors to your still life.

Value
You will learn how value, or the lightness or darkness of a color, is used in art. Using Inkscape, you will create a color value scale. You will also continue with your art project, adding value to your still life through highlights.

Space
You will explore how space and perspective is used in art. Using Inkscape, you will draw two-dimensional objects that look three-dimensional. You will also continue with your art project. You will add a table and book to your still life to create the illusion of 3D space.
Texture

You will explore how texture is used in art. You will create different textures using Inkscape’s filters. You will also complete your art project by adding texture to different parts of your still life.
**INTRODUCTION TO ENTREPRENEURSHIP I**

**Availability:** Grades 6-8

In this course you will learn the basics needed to plan and launch your own business. Do you have what it takes to start a new business? Do you have an idea for a business but need the tools to get started? This course will provide you with the core skills you need to become successful. In this course you will study the characteristics of successful entrepreneurs. You will also learn about self-employment and basic economic concepts related to small businesses, such as competition and production. This course will also walk you through the steps of setting up a business, including developing a business plan, a mission and a vision, attracting investors, and marketing your company.

**Units**

**Course Overview**

You will receive a basic overview of the course. You will learn how to navigate through the course, find and zip files, set up your Web browser, and complete coursework. You will also learn about using trustworthy sources, avoiding plagiarism, and making proper citations.

**The Role of the Entrepreneur**

You will receive an introduction to what it means to be an entrepreneur. You will learn about types of entrepreneurs and the role of entrepreneurs in society. This unit will also explain basic economic concepts related to entrepreneurship, including producers and consumers, strong and weak economies, and capitalism and competition.

**Entrepreneurship as a Career**

You will learn more about the life of an entrepreneur. This unit will explore some of the advantages and disadvantages of self-employment as well as detail the characteristics, skills, and education of successful entrepreneurs. This unit will also discuss reasons why a person becomes an entrepreneur and career paths that help develop entrepreneurial skills and characteristics.

**Economic Principles**

You will learn more about some basic economic concepts related to entrepreneurship. You will learn about profit and loss, profit motive, and competition. You will also learn about production, goods, scarcity, and the law of supply and demand.

**Production and Delivery**

You will learn how entrepreneurs produce and deliver goods and services to markets. You will explore some of the different industries and delivery methods. You will also learn about related economic concepts, including economic utility, economies of scale, market saturation, and product life cycle.
Small Business Basics
You will explore the stages and forms of small businesses. Related to this, you will learn about how to form departments and factors that contribute to success and failure. You will also become more familiar with the importance of business ethics.

Business Ideas and Opportunities
You will learn the role of entrepreneurs and small businesses in society and the global economy. Related to this, you will explore how business trends affect entrepreneurial ideas and opportunities. You will also learn about methods and resources that will help you generate business ideas and wisely select the best plan based on your goals, skills, personality, and resources.

Defining Your Business
You will learn about the importance and parts of a business plan. Related to this, you will learn how to craft a mission and vision statement. You will also learn how to determine the scope of a business, including the products and services that will be offered.

Business Organization
You will learn about various forms of business organization as well as accompanying legal and tax procedures. Related to this, you will learn about franchising, business licenses, and permits. You will also explore ways to organize and manage employees, records, purchasing, and inventory.

Marketing Basics
You will explore basic concepts related to marketing an entrepreneurial initiative or business, including market positioning, penetration, and research. You will also learn about establishing a corporate and brand image and the steps involved in developing a marketing message.

Promoting Your Company
You will learn about diverse methods for promoting an entrepreneurial initiative or business. Related to this, you will explore promotional methods, costs, and evaluation. You will also learn about advertising methods and goals as well as the parts of a marketing plan.
BUSINESS KEYBOARDING (STEM FOCUSED)

Availability: Grades 6-8

In this course, the student will explore a variety of keyboarding strategies including learning the function of all the keys, how to find them quickly, and the importance of keyboarding for his future career. Major concepts of this course include the alphabetic and numeric keyboard, history of the keyboard and new technology, and keyboard skill building (speed and accuracy).

Units

Learning the Game Part 1

Learning the Game is an introduction to the course. The game motif is expanded as it relates learning a new game to learning the rules of the course and the concept of keyboarding. Welcome to the Keyboarding Game! Working through Unit 1 will be much like opening the box to a new game and learning the rules and how to use the game board and game pieces. Here, you will familiarize yourself with the basic rules of the game, including electronic communication rules (Netiquette), and begin to work on becoming accustomed to the game board. Finally, you will perform some of the beginning moves in playing the game of keyboarding. As with any game, learning the rules and becoming proficient with the moves will make playing the game easier and increase your chance of success. Remember to have fun!

Learning the Game Part 2

In Unit 1, you focused on learning the Alpha keys. In Unit 2, you will continue to practice your keying skills while learning the number keys (both alphanumeric and keypad).

Playing the Game

You have now learned the basics of proper keying. You will now begin to learn about formatting business documents while you continue to practice your keying skills using MT3. Now that you have learned the basic skills of the keyboarding game, you are ready to move on to applying those skills. In Unit 3, you will continue to practice your keyboarding skills, as well as learning proper formatting for letters, memos, and reports. In addition, you'll spend some time learning more about your favorite game.

Games in Your Future?

This unit focuses on career choices and is referred to as a reality check (we can't all play games for a living). You will complete an interest inventory and select a career to research. This research project will be the final project for the course, worth 20% of the course grade when combined with the timed writing score. Instead of taking a single exam at the end of the course to show that you've mastered all of the skills needed to play the keyboarding game, you will complete a final project. Unit 4 is that project. All of the career assignments in Unit 4 must be completed satisfactorily in order for you to receive a passing grade in this course. The tasks you will be asked to perform include all of the skills you've been practicing throughout the course. As in the other units of this course, you will also take a timed writing exam at the end of Unit 4. You will continue to do some skill building activities to improve your speed throughout this unit.
CAREER PLANNING

Availability: 8th grade

In this course, you will focus on your own career planning. Over the span of your school career, you will cover topics ranging from interest inventories to skill building. The purpose of this program is to help you explore options for potential careers that would be a good fit for you, based on your interests, skills, and values. By exploring options during your secondary schooling, you will have opportunities to prepare yourself for your future, through hands-on experiences, course work, LiveLessons, and planning exercises.
HIGH SCHOOL ADDITIONAL COURSES (9-12)

ADVANCED ALGEBRA WITH FINANCIAL APPLICATIONS A (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will apply knowledge of algebra as he explores topics such as saving money, spending money, and dealing with debt. The student will apply formulas to determine account balances, monthly payments, and total costs. As the student applies knowledge in real-world scenarios, he will learn skills that provide a foundation for financial decisions.

Units

Saving
You are introduced to the concept of earning interest as opposed to saving your money in a piggy bank or under the mattress. You discover how interest allows an account balance to grow and how simple interest is different than compound interest. You will learn about the different variables that affect the total balance in a compound interest savings account while making connections between that type of exponential growth and that of population and other real-world scenarios.

Spending
You will learn about different algebraic models that can be used to represent data. You also see how a verbal model or written scenario can be translated into an algebraic equation or two that can then be solved for the missing variable(s). The examples throughout the unit connect back to the spending theme. When you reach the middle of the unit you are introduced to the concept of income tax and then to purchasing and financing options.

Debt
You will learn about factors that can get you into debt and then how to get yourself out of it. The unit starts with basics behind credit cards and then moves into credit scores/reports and cash management. After learning the many ways people can easily get themselves into debt, you will learn how to create a budget and get out of debt.
ADVANCED ALGEBRA WITH FINANCIAL APPLICATIONS B (STEM FOCUSED)

Grades: 9, 10, 11, 12

Credits: 0.50

In the second part of this course, the student will extend knowledge of the financial applications of algebra by exploring investments, mortgages, and retirement savings plans. While participating in real-world scenarios, the student will reflect on learning and evaluate progress as he continues to exercise financial decision-making skills.

Units

Mortgage

The Mortgage unit is all about what goes into borrowing a large sum of money to purchase a home. This is one of the biggest purchases you will make. Knowing some of the pros and cons will help you to be more knowledgeable for future decision making.

Investment

You will learn about the basics behind investing. You are given the opportunity to research some stock prices, make some predictions and calculate rates of return. By the end of this unit you should be able to describe risk tolerance and provide advice for someone looking to diversify his investment portfolio.

Retirement

You learn about what retirement is, how to plan for it and how to protect your assets for future dependents and loved ones.
**CALCULUS A (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

Calculus A introduces limits, differentiation, and applications of differentiation. The student will find and evaluate finite and infinite limits graphically, numerically, and analytically. The student will find derivatives using a variety of methods including the chain rule and implicit differentiation. Then the student will use the first derivative test and the second derivative test to analyze and sketch functions. Finally, the student will find derivatives using a variety of methods including substitution.

The use of a graphing calculator is considered an integral part of the course and the student will use a graphing calculator throughout this course.

**Units**

**Introduction**

Welcome to Calculus A. This brief unit introduces the course objectives and presents tips and grading guidelines for the Research Paper, which you will work on throughout the semester.

**Limits and Their Properties**

In this unit you will learn how to calculate limits and explore their central role in calculus. You will study the notation, domain, and range of functions as well as the families, transformations, and compositions of functions. Throughout the unit you will apply what you learn to real-world situations. You will also continue to work on your research paper.

**Differentiation**

In this unit you will learn how to calculate derivatives, one of the two major tools of calculus. You will study the rules of differentiation, explore the connection between differentiability and continuity, use derivatives to find rates of change, distinguish between functions written in implicit and explicit form, and apply related rates to solve real-world problems. Also, you will continue to work on your research paper.

**Applications of Differentiation**

In this unit, you will learn the fundamental applications of differentiation using the first and second derivatives. You will find extrema over closed intervals, sketch and analyze the graph of a function, solve applied minimum and maximum problems, and use a tangent line approximation. In addition, you will apply several tests and theorems including Rolle's Theorem, the Mean Value Theorem, and the First and Second Derivative tests. You will complete your research paper by the end of this unit.
Final Review and Exam
In this unit, you will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes and answers to questions before you begin to review.

Online Text/eBook

eText Thomas’ Calculus: Early Transcendentals

Textbook

Thomas’ Calculus: Early Transcendentals
CALCULUS B (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

Calculus B introduces integration of functions, differential equations, and applications of integration. The student will calculate antiderivatives using a variety of methods including substitution. The student will evaluate integrals using a variety of methods including numerical integration. Then the student will understand and apply Riemann sums, definite integrals, and the Fundamental Theorem of Calculus. In particular, the student will differentiate and integrate logarithmic, exponential, and inverse trigonometric functions. The student will solve simple differential equations, which can be solved by separation of variables, and use the calculations to solve applied problems. The student will use integration to determine the area between two curves, volume, and surface area. Finally, the student will apply integration to determine work, center of mass, and fluid force.

The use of a graphing calculator is considered an integral part of the course and the student will use a graphing calculator throughout this course.

Units

Integration

In this unit, you will learn the fundamentals of integration, a key concept of calculus. You will use integration to find the area of regions, apply the Fundamental Theorem of Calculus, compare differentiation and integration, and study the Trapezoidal Rule and Simpson’s Rule. In addition, you will research Georg Riemann, a German mathematician who made significant contributions to geometry and calculus.

Logarithmic, Exponential, and other Transcendental

In this unit, you will learn to apply integration to different functions, including trigonometric and hyperbolic functions. You will also explore how integration applies to the natural logarithmic function. You will learn how to use different functions to solve real-world problems, including the design of suspension bridges.

Differential Equations

In this unit, you will use differentiation and integration to solve differential equations. You will use differential equations to solve real-world problems involving cooling and falling objects, temperature variance, and bacterial growth. In addition, you will learn how to solve logistic differential equations, first-order linear differential equations, and Bernoulli differential equations.

Applications of Integration

In this unit, you will continue to apply the technique of integration. Specifically, you will learn how to calculate the area of a section between two curves; determine volumes, arc lengths, and areas of a surfaces; and use the disc, washer, and shell methods to solve problems. In addition, you will learn how calculus applies to physics as you calculate the work done by a constant force.
**Final Review and Exam**

In this unit, you will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the course. Since this is a comprehensive exam, it may be helpful to organize your notes and answers to questions before you begin to review.

**Online Text/eBook**

eText Thomas' Calculus: Early Transcendentals

**Textbook**

*Thomas' Calculus: Early Transcendentals*
EXPLORATIONS IN MATHEMATICS A (STEM FOCUSED)

Grades: 9, 10, 11, 12

Credits: 0.50

This course provides students with a foundation in fundamental mathematic concepts, allowing them to apply these concepts to real-world situations. Prime factorization and operations with rational numbers and integers are covered, establishing a solid base for the study of more complex math.

Units

Working with Rational Numbers
In this unit, you will learn the necessary skills to establish a solid mathematics foundation. Concepts emphasized in this unit will reappear throughout the course, so take the time to complete each lesson carefully.

As you work through the unit, you will expand your knowledge of rational numbers. You will explore divisibility patterns and prime factorization. You will use this knowledge to identify and determine the greatest common factor and the least common multiple of rational numbers. Then, you will learn how to add and subtract rational numbers with like and unlike denominators and how to reduce the answer to its simplest form. Finally, you will solve rational number problems by multiplying and dividing.

Variables, Equations, and Properties
In this unit, you will recognize and solve mathematical expressions and equations involving variables. You will identify, understand, and simplify expressions using the following properties: Associative Property of Addition and Multiplication, Commutative Property of Addition and Multiplication, Additive and Multiplicative Identity Property, Additive and Multiplicative Inverse Properties, and the Distributive Property. Finally, you will learn how to use the order of operations to evaluate expressions.

Explorations of Mathematics A Final
In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.
EXPLORATIONS IN MATHEMATICS B (STEM FOCUSED)

Grades: 9, 10, 11, 12

Credits: 0.50

In the B course, students build on fundamental math concepts and examine integers and solving equations. Probability and statistics round out the course; students explore mean, mode, and median, as well as more advanced concepts, such as permutations and combinations.

Units

Integers and Solving Equations

In this unit, you will explore the addition, subtraction, multiplication, and division properties of equality and use these properties to solve simple and one-step equations. You will be introduced to the concept of absolute values of integers in order to compare two or more integers. Then, you will learn how to add, subtract, multiply, and divide integers. You will solve simple equations using the reflexive, symmetric, transitive, and substitution properties of equality. Finally, you will expand your knowledge of one-step equations skills to solve real-world application problems and multi-step equations.

Probability and Statistics

In this unit, you will be introduced to and solve equations using the concepts of direct and inverse variation. You will learn the measures of central tendency including mean, median, mode, and range, and determine these measures in a data set. You will expand on the measures of central tendency by calculating the quartiles of an ordered data set. Then, you will explore some common concepts of probability including the counting principle, permutations, combinations, and probability of simple events. At the end of the unit, you will calculate real-world probability problems.

Explorations of Mathematics B Final

In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.
PERSONAL FINANCE (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

Through real-world applications and clear, engaging lessons, Personal Finance prepares students for making sound financial decisions. Exercises illustrate the influence of economics in daily life and how financial decisions made today affect the future.

Units

Money Management and Career Planning
You will define personal financial planning, and explore the six steps of financial planning. You will also identify economic factors that affect personal financial decisions and explain how opportunity costs are associated with personal financial decisions. Finally, you will identify strategies for achieving financial goals at different stages of life.

Taxes, Retirement, and Health Insurance
You will learn to identify the personal issues to consider when choosing and planning your career. You will also understand how education and training affect career advancement. You will study tax strategies, insurance and risk management, health insurance and financial planning, and culminate with a discussion of retirement planning.

Consumer Credit and Investing
You will identify different types of financial services, and calculate the cost and benefits of different savings plans. You will study how to build and protect your credit rating. You will discuss ways to obtain funds for investing and identify the factors that affect their investment choices. You will also identify the main types of savings and investment alternatives and explain the steps involved in developing a personal investment plan. As you explore your own personal plan, you will identify sources of financial information.

Starting a Business
You will study the three essential types of business arrangements, namely sole proprietorship, general and limited partners, and types of corporations. As you study how to form a corporation and explore its advantages and disadvantages, you will consider the broader concern of financial management for a business. As the lessons progress, you will formulate a business plan and explain its components. Similarly, you will describe the aspects of a financial plan and explain the importance of accounting in financial management. Finally, you will explore the primary functions of accounting.

Operating Your Business
You will be defining terms such as: start-up costs, operating costs, and reserve funds, and you will show how this is related to entrepreneurship. You will also identify sources of personal and private financing, and discuss the options available through bank funding. Additionally, you will examine the role of accounting and record keeping. Finally, you will explore the nuances of accounting, and you will apply this analysis to how businesses run from their inception to their perpetuation and growth.
Review and Final Exam

You will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review.
**PHYSICS A (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

The goal of physics is to describe the physical world using a small number of basic assumptions, concepts, and equations. In this course, emphasis is placed on relating physics to the everyday world. The student will explore the concepts involved with motion in one- and two-dimensions, forces, work and energy, momentum and collisions, circular motion and gravitation. The students will recognize the importance of the laws of thermodynamics.

Approximately 40 percent of the course involves virtual laboratory investigations. Some activities will require ordinary household items such as rulers, meter sticks, balls or marbles, string, paper, and pencils.

Physics A focuses on understanding motion. The student will learn kinematic equations and apply them to various situations. The student will explore forces, work, and energy and apply these concepts in the special case of circular motion. Heat and the laws of thermodynamics are covered.

**Units**

**Introduction**

Welcome to Physics A. This unit introduces the course objectives and explains the grading guidelines for research assignments and laboratory reports. In addition, the unit reviews the scientific method.

**Physics and Laws of Motion**

You will explore the motion of objects. Most of the types of motion described in this unit are likely familiar to you. You will learn about these common types of motion by studying laws of motion, performing calculations, and conducting virtual laboratory experiments.

**Energy and Motion**

You will learn about work, energy, and motion. You will study the different kinds of energy that are involved when things move and learn how energy is converted from one form to another during collisions. In addition, you will learn about the forces involved with circular motion and gravitation. You will continue to solve real-world problems and conduct virtual laboratory experiments.

**Heat and Thermodynamics**

In the previous unit you studied energy. In this unit you will learn about a particular form of energy: heat. Thermodynamics involves understanding how the transfer of heat affects the work done by a system. You will also study the first and second laws of thermodynamics and continue to solve real-world problems and conduct virtual laboratory experiments.
**Final Review and Exam**

You will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes and answers to questions before you begin to review.

**Online Text/eBook**

eText Physics
**PHYSICS B (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

The goal of physics is to describe the physical world using a small number of basic assumptions, concepts, and equations. In this course, emphasis is placed on relating physics to the everyday world. The student will learn the characteristics of waves and describe the behavior of waves with emphasis on light and sound. The student will understand the relationship between electricity and magnetism. Finally, the student will gain a simple understanding of atomic physics.

Approximately 40 percent of the course involves virtual laboratory investigations. Some activities will require ordinary household items such as rulers, meter sticks, balls or marbles, string, paper, and pencils.

Physics B focuses on waves, in particular sound and light. Then the course moves to understanding electricity and magnetism and the relationship between the two. It concludes with a basic exploration of atomic physics.

**Units**

**Waves**
You will explore the behavior of oscillations and waves. You will study periodic motion, analyze the characteristics of sound and light, and learn how waves transport energy. You will perform virtual labs to investigate the relationship between the length and period of a pendulum, and the correlations among frequency, speed, and amplitude of sound waves.

**Electricity**
You will explore the properties of electric charges. You will calculate the electric force produced by point charges, interpret electric field lines, learn how capacitors store electrical energy, and compare series and parallel circuits. You will perform a virtual lab to investigate the relationships between voltage and current and resistance and current. In an interactive discussion with your classmates, you will debate if using hybrid electric vehicles may help to solve some of our energy problems and discuss some of the environmental problems associated with carbon emissions.

**Magnetism and Atomic Physics**
You will explore the relationship between electricity and magnetism. You will learn how electromagnets work, analyze the forces exerted on charges in a magnetic field, and study a field of physics known as quantum mechanics, which describes the physics of the particles that make up atoms. You will perform virtual labs to investigate the magnitude of the magnetic fields of solenoids and the relationship between kinetic energy, emitted electrons, and the wavelengths of light.
**Final Review and Exam**

You will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes and answers to questions before you begin to review.

**Online Text/eBook**

eText Physics
WORLD GEOGRAPHY

Grades: 9, 10, 11, and 12

Credits: 0.50

Students master basic geography skills and principles in this course, which covers major locations, the United States, world economic activity, and understanding and using maps. Students acquire an understanding of multiculturalism and the relationships between people and their environment.

Units

People and Places

In this unit, you'll gain some background in the origins of geography in order to get a sense of where and how this science began. This brief history will also give you some perspective on just how much our knowledge of geography has changed and grown. Glimpses into the travel journals of Marco Polo and the epic story of Odysseus, among others, reflect how imagination took the wheel when facts could go no further. You'll also follow a timeline of maps, from the Babylonians simplistic clay-tablet world map to the minutely detailed satellite maps of today.

After delving in the beginnings of geography, you will familiarize yourself with the basics of physical geography, a necessary prerequisite to exploring human geography. You will scrutinize the anatomy of our planet, from its interior to its ionosphere. The science of plate tectonics will be introduced, and then you will dive into the topics of oceans and continents. You'll also examine the concepts of the latitude and longitude, hemisphere, equator, and prime meridian.

Climate and its effects on human populations

You will learn what defines human geography and how it is different than physical geography. You will also familiarize yourself with the aspects of study that fall under the umbrella term of human geography, how each in some way is intricately woven into the natural landscape of the planet.

Europe

You'll first examine the topographical characteristics of Europe and become acquainted with its flora and fauna (the plants and animals) of the continent, and take a trip in the process. You'll then get an overview of the many nationalities that make up Europe and pay a virtual visit to a selected country, keeping a travel journal of your stay. In the final lesson of the unit, you'll learn about the European Union, a group of 27 (to date) European nations that have made a commitment to work together as one entity to keep peace and grow economically.

Africa

You will examine the topographical characteristics of Africa and discover its incredible animals and plants. In the process, you will take a virtual field trip to an African nation to study one of its ecosystems. You will get an overview of the many peoples and tribes that make up Africa and pay a virtual visit to a selected country, keeping a travel journal of your stay. Finally, you will learn about the economic and political climates in Africa, and the efforts being made to include this continent into the globalization movement.
Asia
You have a lot of ground to cover—millions of miles, in fact. Your virtual trek now takes you to the vast and extraordinarily diverse continent of Asia. Because Asia encompasses vast stretches of the planet, scores of countries, and hundreds of individual cultures, economies, and governments, the first lesson in this unit will include a general introduction to Asia through video clips. Once you have an overview of the region, you will explore its physical geography. In lesson 2, you'll explore the culture of India, in which ancient traditions and religions meet modern technology and lifestyles. China's economic and political identity will be examined in lessons 3 and 4, as this country rides the fast track to becoming a global economic superpower.

North America
You will first examine the physical terrain of the continent and become acquainted with its rich biodiversity. You will also have the chance to pay a virtual visit to one of the few mega diverse countries in the world. Then, you will get an overview of the many peoples and cultures that make up North America and take another virtual trip to a selected country, keeping a travel journal of your stay. In the final lesson of the unit, you will learn about the political and economic landscape of this continent's major players and take a look at the economic phenomenon of free trade agreements, in particular, the North American Free Trade Agreement (NAFTA). If you are from North America, this unit gives you the grand tour of your own backyard. If you are from another part of the world, it may provide a rich and informative guide to this amazing continent.

South America
You arrive on the next continent in your whirlwind virtual world tour: South America. Like all the other continents you've studied thus far, South America has its own character, both physically and culturally. Its culture is similar to that of Central America, but with a stronger Latin influence. Even with all the cultural diversity found throughout this continent's 13 nations, the Latin flavor is ever present.

For starters, you'll take a look at the physical features of South America, which presents a varied landscape and holds several "world's no. 1" titles in the physical geography hall of fame (longest mountain range, biggest river, to name two). In the first lesson, you'll also take a little excursion off the coast of Ecuador to discover the weird and wonderful flora and fauna of the Galapagos Islands. In Lesson 2, you will learn how the story of the Spanish invasion of Mexico and Central America was continued into South America, and how its effects are evident in today's South American culture. Yet the continent has attracted an ethnic rainbow of people from throughout the world, and you'll discover how these immigrants have adapted while still maintaining their cultural identities. For the unit's final lessons, you will review the frequently changing political scene in South America and learn how South America, too, is working to facilitate economic growth.

Australia, New Zealand, and the Pacific Islands
You will study the final region in your virtual world tour: Oceania. You will learn more about its diverse and beautiful physical geography, as well as the diversity of cultures that have shaped Oceania's history. You will examine Australia, New Zealand, and some of the Pacific Island nations of Oceania.
Current Issues

You will gain an understanding of the characteristics of populations, including how they are distributed over the land, what spurs populations to grow, and the stages of growth—known as demographic transition. You will then study the topic of overpopulation, learn about exponential growth, and learn the world’s population—6.6 billion. As well, you will explore the causes and consequences of human overpopulation. In lessons 3 and 4, you will delve into what is arguably the most dire environmental issue we face—global warming. You will examine such questions as how did this phenomenon happen. Then you will be introduced to possible ways to mitigate this predicament while exploring what sustainability entails.

Final Review and Exam

You will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with the questions.
HIGH SCHOOL ELECTIVE COURSES (9-12)

TECHNOLOGY

3D ART I – MODELING (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

This course will introduce you to 3D modeling tools and concepts. Using Blender, a popular open-source 3D modeling package, you will learn the basics of creating shapes, adding textures and lighting, and rendering. By the end of the course, you will have produced a series of increasingly sophisticated projects for your 3D portfolio. This course is suitable for students with no prior experience in 3D design or digital media authoring tools.

Units

Course Overview

You will learn what you need your computer to have in order to take the course and software you will have to download. You will also learn about creating the 3D model and navigating through 3D space.

Project 1: Make a Hat

You'll make a hat for Suzanne the monkey.

Project 2: Build a House

You will learn to build a house using basic shapes, manipulated vertices and used image files. You will also create an animation in which a camera will follow a path.

Project 3: Create a Creature

You will begin creating the creature by using a background image as a guide to get started. You will have a completed creature by applying modifiers, materials and textures you will learn about as you get through the lessons.

Project 4: Animate a Character

You will be able to make the creature you created in the previous unit walk.

Project 5: Create Terrain

You will use various tools to create a terrain with a daytime and nighttime sky.
Project 6: Build a Car
You will build a car from top to bottom. In addition, you will create asphalt for the car to drive on and make a movie of the car driving.

Project 7: Make a Scene
You will create an animated scene in which the door of the house you built in Unit 2 will open. The creature you created and rendered in Units 3 and 4 will then walk in the house.

Build Your Own Project
You will create your own original project.
BUSINESS KEYBOARDING (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will explore a variety of keyboarding strategies including learning the function of all the keys, how to find them quickly, and the importance of keyboarding for his future career. Major concepts of this course include the alphabetic and numeric keyboard, history of the keyboard and new technology, keyboard skill building (speed and accuracy), business ethics, formatting various academic and business documents.

Units

Learning the Game Part 1

Description Learning the Game is an introduction to the course. The game motif is expanded as it relates learning a new game to learning the rules of the course and the concept of keyboarding. Welcome to the Keyboarding Game! Working through Unit 1 will be much like opening the box to a new game and learning the rules and how to use the game board and game pieces. Here, you will familiarize yourself with the basic rules of the game, including electronic communication rules (Netiquette), and begin to work on becoming accustomed to the game board. Finally, you will perform some of the beginning moves in playing the game of keyboarding. As with any game, learning the rules and becoming proficient with the moves will make playing the game easier and increase your chance of success. Remember to have fun!

Learning the Game Part 2

In Unit 1, you focused on learning the Alpha keys. In Unit 2, you will continue to practice their keying skills while learning the number keys (both alphanumeric and keypad).

Playing the Game

You have now learned the basics of proper keying. You will now begin to learn about formatting business documents while you continue to practice your keying skills using MT3. Now that you have learned the basic skills of the keyboarding game, you are ready to move on to applying those skills. In Unit 3, you will continue to practice your keyboarding skills, as well as learning proper formatting for letters, memos, and reports. In addition, you'll spend some time learning more about your favorite game.

Games in Your Future?

This unit focuses on career choices and is referred to as a reality check (we can't all play games for a living). You will complete an interest inventory and select a career to research. This research project will be the final project for the course, worth 20% of the course grade when combined with the timed writing score. Instead of taking a single exam at the end of the course to show that you've mastered all of the skills needed to play the keyboarding game, you will complete a final project. Unit 4 is that project. All of the career assignments in Unit 4 must be completed satisfactorily in order for you to receive a passing grade in this course. The tasks you will be asked to perform include all of the skills you've been practicing throughout the course. As in the other units of this course, you will also take a timed writing exam at the end of Unit 4. You will continue to do some skill building activities to improve your speed throughout this unit.
DIGITAL ARTS I (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course you will become familiar with basic concepts essential to visual and digital art, such as line, shape, form, color, value, space, and texture. Using Inkscape, a free open-source program, you will also develop core artistic skills through the creation of original digital art. You will have the opportunity to express yourself as well through a course-long art project that involves the creation of a still life scene.

Units

Course Overview
You will learn how to use the course technology. You will learn how to navigate through the course, find and zip files, set up your Web browser, and complete coursework. You will also learn about using trustworthy sources, avoiding plagiarism, and making proper citations.

Introduction to Digital Art
You will learn about basic concepts that inform visual arts, digital arts, and computer graphics. You will also start to learn how to use Inkscape, a software program for creating digital art.

Lines
You will explore the use of lines in art. Using Inkscape, you will create different types of lines, including a special kind of curve called the Bezier Curve. You will also start an art project that you will continue to work on throughout the course. This project will involve the creation of a still life scene depicting a glass, a decanter, and a bowl of fruit.

Shape and Form
You will explore the use of shapes and forms in art. Using Inkscape, you will create different types of shapes. You will also continue with your art project, adding shapes and forms to your still life.

Color
You will learn how color is related to light and how color is used in art. You will use Inkscape’s color sliders to practice using color. You will also continue with your art project, adding grapes and colors to your still life.

Value
You will learn how value, or the lightness or darkness of a color, is used in art. Using Inkscape, you will create a color value scale. You will also continue with your art project, adding value to your still life through highlights.
Space
You will explore how space and perspective is used in art. Using Inkscape, you will draw two-dimensional objects that look three-dimensional. You will also continue with your art project. You will add a table and book to your still life to create the illusion of 3D space.

Texture
You will explore how texture is used in art. You will create different textures using Inkscape’s filters. You will also complete your art project by adding texture to different parts of your still life.
**EMERGENT COMPUTER TECHNOLOGY (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, students learn the basics of building safe Web sites. Starting with the basic concepts of Web design (including using hypertext markup language, or HTML), students move on to planning their site and learning how to link and navigate pages. Students are introduced to more complex design techniques, including how to make sites more attractive and interesting through the use of graphics.

**Units**

**Introduction to Website Design**

In this unit you will be introduced to the fundamentals of website design which includes an introduction to html and its history, information on how to create links to other web pages, and how to organize your web page through text formatting.

**Graphics and Multimedia**

In this unit you will plan the graphics and multimedia that you will use to enhance your web page. This includes learning how to create inline images, create and adjust graphic size, and manipulate background and text colors on your web page.

**Forms and Tables**

In this unit you will practice form planning and design. Forms allow you to collect information from visitors on your website. You will also discover the usefulness and importance of tables to lay out any page content and provide you more control over the appearance of your web pages.
ENGINEERING DESIGN I (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this introductory course you will learn computer-aided design skills necessary for a career in engineering. To this end, you will learn the basics of using CAD software to draw engineering plans and diagrams. Using CAD, you will become familiar with creating points, lines, geometric forms, drawings, and 3-D models. As you learn these basics, you’ll gain the foundation that you need to translate abstract concepts into functional designs, a core engineering skill. During this course, you will create a diverse portfolio of projects that include orthographic projections, sectional views of 3-D objects, isometric drawings, and 3-D walkthroughs. Through these projects, you’ll develop the skills you need to design and create CAD projects of your own.

Units

Course Overview

Create Shapes
In this unit, you will learn how to set up and use CAD tools to draw lines and shapes. Using CAD, you will learn how to edit, copy, mirror, and rotate lines. You will also learn how to draw lines and shapes at specific points on other lines and shapes.

Create Orthographic Drawings
In this unit, you will learn how to create orthographic projections that show three-dimensional (3-D) objects in a two-dimensional drawing. You will learn how to define layers, dimensions, scale, and layout. You will also learn how to use visible lines, construction lines, hidden lines, and center lines. Additionally, you will draw an orthographic drawing of an object with a hole in it.

Draw Sectional Views
In this unit, you will learn how to draw sectional views of 3-D objects in CAD. You will also draw cutting plane lines that reveal the most important features of 3-D objects.

Create an Isometric Drawing
In this unit, you will analyze different types of pictorial drawings that create a realistic 3-D effect. You will also learn to use distance and angles to create isometric drawing.

Create an Oblique Drawing
In this unit, you will learn to use foreshortening to make oblique drawings look more realistic.

Create a Perspective Drawing
In this unit, you will learn about perspective drawing and vanishing points. To this end, you will analyze how vanishing points make things look realistic. You will also create a two-point perspective drawing.
**Draw an Auxiliary View**

In this unit, you will learn about the purpose of auxiliary views. You will also create an auxiliary view of a 3-D object.

**Dimension Drawings**

In this unit, you will learn and apply guidelines and CAD standards for dimensioning. You will learn to add dimensions to a rectangular block and interpret drawings with complex features. You will also learn about baseline dimensioning and use this knowledge to dimension a three-view orthographic drawing. Additionally, you will learn to apply a leader line to dimension a circle.

**Create Working Drawings**

In this unit, you will learn about the types of information that goes into working drawings. You will add a title block with text to a blank drawing. You will also create a bill of materials for your set of working drawings. Additionally, you will learn about working with clients, including how to save files in appropriate formats for client usage.

**Create a 3-D Design**

In this unit, you will learn how to navigate a 3-D CAD environment and use basic shapes to create 3-D objects. To this end, you will learn how to draw edges and surfaces in SketchUp to create a house. Additionally, you will create objects with specific dimensions—a swimming pool and a bird bath—as well as learn how to import a chair. Finally, you will learn about ways to view your design and share it with others.
GAME DESIGN (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

This course is for anyone who loves gaming and wants to design games. You’ll learn how to use popular game design software to create engaging, interactive games in a variety of genres. In addition, you’ll get a solid foundation in the basic concepts of game development. By the end of this course, you will have a variety of polished games for your game development portfolio.

Units

Game Design Overview
In this unit, you will learn what you need your computer to have in order to take the course and how to move through the course.

Ping
In this unit, you will create a two-player video game called Ping.

Ice Breakers
In this unit, you will create a one-player video game called Ice Breakers.

Cat Burglar
In this unit, you will create a one-player maze game called Cat Burglar.

Alien Attack
In this unit, you will learn how to create a one-player shooter game called Alien Attack.

Pest Busters
In this unit, you will learn how to create a one-player version and a two-player version of a shooter game called Pest Busters.

Amazon Adventure
In this unit, you will learn how to create a one-player platform game called Amazon Adventure.
INTRO TO COMPUTERS & INFORMATION TECHNOLOGY: IC3 A (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will gain an understanding of computing and common features of popular applications. The student will practice and apply computer skills needed in today’s academic and business environments including word processing, spreadsheet, and presentation applications. Skills needed for working in an Internet or networked environment are also covered. This course prepares the student for the three Internet and Computing Core Certification (IC3) tests.

Units

Unit 1: Exploring Computers
In this unit, you will explore Pegasus, read about the history of computers, and gain an understanding of your own computer hardware and software.

Unit 2: Exploring Input and Output
In this unit you will learn the basics of inputs and outputs as well as some specialized input and output functionality.

Unit 3: Analyzing Storage
In this unit you will learn some basics about storage, classify storage devices, and explore how data storage works on hard drives, flash drives, and optical storage devices.

Unit 4: Exploring Systems Software
In this unit you will be introduced and explore operating systems and utilities.

Unit 5: Analyzing Applications
In this unit you will examine and use types of application software and explore software versions and documentation.

Unit 6: Word Processing
In this unit you will learn the basics of word processing that includes creating, editing, formatting, publishing, viewing, and enhancing documents.

Unit 7: Spreadsheets
In this unit you will explore the basics of spreadsheet creation by entering and editing data, using formulas, formatting and managing worksheets, and sharing data among programs.

Unit 8: Databases
In this unit, you will explore the essentials and types of a database, as well as utilize database techniques such as creating and maintaining databases and using queries and filters.
INTRO TO COMPUTERS & INFORMATION TECHNOLOGY: IC3 B (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will continue to practice and apply computer skills needed in today’s academic and business environments including word processing, spreadsheet, and presentation applications. Skills needed for working in an Internet or networked environment are also covered. This course prepares the student for the three Internet and Computing Core Certification (IC3) tests.

Units

Unit 1: Graphics
In this unit you will explore graphics programs, prepare computer graphics, and use image editing programs and drawing and animation features of those programs.

Unit 2: Presentation Programs
In this unit you will create, enhance and finalize presentations using presentation software.

Unit 3: Multimedia
In this unit you will learn some multimedia basics, explore virtual reality, and develop online multimedia to include in your presentation.

Unit 4: Review
In this unit you will apply your new understanding and complete some projects using the software programs that you have learned about.

Unit 5: Communications
In this unit you will explore high speed telecommunications and discuss cell phone technology and choice of digital options.

Unit 6: Networks
In this unit you will learn some networking basics, differentiate local and wide area networks, and discuss the utilization of local and remote networks.

Unit 7: The Internet
In this unit you will compare Internet Services, explore internet structure, access data on the Internet, and explore internet communications.
Unit 8: The World Wide Web
In this unit you will be introduced to e-commerce, explore hypertext, and discuss designing and working on the Web.

Unit 9: E-mail and Other Messaging Systems
In this unit you will describe challenges and solutions around email communications and develop best practices.

Unit 10: Online Safety
In this unit you will discuss ethics around using your computer responsibly, protecting your data, and troubleshooting any computer issues.

Unit 11: Certificate Exam Review
In this unit you will apply your knowledge of Microsoft Word, Excel, PowerPoint, and Access by taking practice exams to prepare for the certification exam.
JAVA PROGRAMMING I (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

The student explores programming fundamentals, variables and assignments, conditional expressions, selection statements, loops, arrays, methods, string manipulation, program troubleshooting, and the basics of class design, object creation, and object interaction. The student will use Oracle’s Java programming language throughout this course.

Online Text/eBook

eText Introduction to Java Programming, Brief Version
JAVA PROGRAMMING II (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

The student will learn essential object-oriented programming concepts, exception handling, recursion, generics, and important data structures in the Java Collections Framework. Advanced topics include algorithm analysis using Big O notation, a comparison of major sorting algorithms, and creation and traversal of a binary search tree. Lessons are accompanied by frequent programming exercises.

Online Text/eBook

eText Introduction to Java Programming, Comprehensive Version
LEARNING MICROSOFT OFFICE 2010 A (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In the Learning Microsoft Office® 2010 course, the student will learn, practice, and apply the practical capabilities of the Microsoft Office productivity suite. The course begins with an introduction to essential Microsoft Office skills, including using the mouse and keyboard, as well as basic tools and functions. Through guided practice, the student will then learn to create, format, edit, and revise a variety of document types in Microsoft Word. Finally, the student will learn and use the tools and features of Microsoft PowerPoint to create engaging presentations. As the student learns the most commonly used software in today's academic and business environments, he prepares for Microsoft Office Specialist Core certification testing.

Units

Office Basics: Common Features in Microsoft Office
You will learn to use tools and features that are common to all applications in Microsoft Office 2010.

Getting Started with Microsoft Word 2010
You will learn how to format and edit documents, adjust alignment and spacing, and insert and format graphics into a Word document.

Editing Documents and Working with Tables
You will use the spelling and grammar check functions, create tables, use the find and replace and autocheck functions, and work with document templates.

Creating Reports and Newsletters
You will change case, manage document properties, create columns, and use other features to enhance a document. You will also create mailing labels.

Learning More About Merge and the World Wide Web
You will continue applying your knowledge of mail merge and begin exploring the World Wide Web.

Getting Started with Microsoft PowerPoint
You will insert and arrange slides, format, edit, and add slide transitions in creating PowerPoint presentations.

Working with Lists and Graphics
You will insert graphics, text boxes, and symbols. You will also apply your knowledge of WordArt and SmartArt in the creation of a photo album.
Enhancing a Presentation
You will modify themes and backgrounds and use effects and animations when creating your presentation.

Finalizing a Presentation
You will fine-tune your work by customizing, enhancing, reviewing, finalizing, and distributing your presentation.
LEARNING MICROSOFT OFFICE 2010 B (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will continue to learn, practice, and apply the practical capabilities of the Microsoft Office® productivity suite. The student will use Microsoft Access to use, create, build, and modify databases. Within a database, the student will view, add, navigate, manipulate, and report information. In Microsoft Excel, the student will learn tools, features, and navigation of spreadsheets. The student will work with cells, ranges, and formulas and will display data in a variety of formats. As the student learns the most commonly used software in today’s academic and business environments, he prepares for Microsoft Office Specialist Core certification testing.

Units

Getting Started with Microsoft Excel 2010
You will learn the basics of Excel by creating worksheets and formatting cells.

Working with Formulas, Functions, and Charts
You will explore functions, use tables, and manage worksheet operations.

Charting Data
You will build, format, and enhance charts by adding special effects and elements. You will also utilize the charts to compare and analyze data.

Advanced Functions, PivotCharts, and PivotTables
You will use advanced functions to create pivot tables and charts to predict trends and analyze data.

Advanced Printing, Formatting, and Editing
You will work with graphics and web data. You will also link data between workbooks and work with 3-D formulas.

Getting Started with Microsoft Access 2010
You will create a database, modify fields, add data, import and protect data, and use table templates.

Working with Queries
You will manipulate and summarize data, create queries, use comparison operators, and calculated fields.

Working with Forms and Reports
You will create and use lists and forms, reports, and tables.
WEB DESIGN I A (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

This course provides a comprehensive introduction to the essentials of website design. From creating page layouts to coding with CSS and JavaScript, the student will create a complete website. Through real-world design scenarios and hands-on projects, the student will create compelling, usable websites using KompoZer, one of the Internet's easiest to use open source editing tools.

Units

Course Overview
You will learn to use the Procedure Library, make your course folder and to change your folder view. Also you will learn to show file name extensions.

Favorite Page
You will create a web page while navigating in KompoZer, the website creation program used in this course. Also, you will have the opportunity to add text and images to your website.

Linked Site
You will explore setting up the navigation and color palette for your web page. You will learn to format your site and to make thumbnail images.

HTML Portfolio
You will learn to write HTML code, add headings, and add body text to the web page.
WEB DESIGN I B (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

This course provides a comprehensive introduction to the essentials of web design, from creating page layouts to coding with CSS and JavaScript to create a complete website. Through real-world design scenarios and hands-on projects, the student will create compelling, usable websites using KompoZer, one of the Internet's easiest to use open source editing tools.

Units

Styled Site
Your web page has been created, and now you will have the opportunity to style the page as you wish. You will learn how to title and name pages as you create your navigation bar. This unit will introduce cascading style sheets (CSS) and their usage in web page creation.

CSS Code
You will work exclusively with cascading styles sheets (CSS). You will explore inline, external and second style sheets.

JavaScript
The final unit introduces you to JavaScript including how to add image links, dialog boxes, and rollover images to your web page. You will also be able to create dynamic web pages by the end of this unit.
HEALTH AND PHYSICAL EDUCATION

HEALTH, FITNESS, AND NUTRITION A

Grades: 9, 10, 11, and 12

Credits: 0.50

The benefits of nutrition and exercise are among the many health-related topics covered in this course. Students gain awareness of their own fitness level and nutritional needs through the study of the body’s musculature and respiratory system.

Units

Unit 1
You will learn about the different aspects of being fit and why these aspects are important. You will also learn factors that determine fitness but are out of your control. Various tests, components, and guidelines for exercise, joints, flexibility, stretching, and the mind-body connection are covered.

Unit 2
You will study the anatomy of the heart and its relation to exercise and muscle strengthening. Aerobic training and the importance of training properly will also be discussed. You will discover why developing positive exercise habits at young age will help increase longevity and quality of life.

Final Exam
HEALTH, FITNESS, AND NUTRITION B

Grades: 9, 10, 11, and 12

Credits: 0.50

In the second of two courses, students learn first aid, personal wellness, and the dangers of alcohol and drug use. Students learn how to adopt long-term, healthy habits and lifestyle changes to improve and inspire an overall state of well-being. Students also explore how fitness can influence self-image and how to develop social strategies to understand peer pressure.

Units

Unit 1

Students will begin to explore the causes of obesity and the steps to prevent obesity and other diseases that arise from a sedentary lifestyle. You will learn about weight control and the different types of diets that are common today. You will also be able to determine which diets can and cannot work. Stress and stress management will also be explored in this unit.

Unit 2

In this unit, you will learn about first aid, personal wellness, and the dangers of alcohol and drug use. Students will discover myths that surround exercise and identify ways to prevent injury while exercising. You will also explore how fitness can influence self-image and how to develop and design a personal exercise program.

Final Exam
PERSONAL FITNESS

Grades: 9, 10, 11, and 12

Credits: 0.50

The lessons in Personal Fitness help students gain an understanding of the proper ways to exercise and diet, as well as learn how to assess their own fitness level. The course also teaches strategies to attain the highest possible fitness level.

Units

Fitness Awareness and Understanding
You will learn about the importance of fitness and be able to describe your fitness level. Topics covered include the five health-related factors and the six skill-related factors. You'll be able to define and perform a series of fitness tests to evaluate cardiovascular fitness, body composition measurements, and body fat evaluation. You will also be able to explain the principles of overload, progression, and specificity. With this knowledge, you will learn how to plan your own exercise sessions, including the warm-up and cool down. Flexibility, the different kinds of joints, and how to apply principles to flexibility will also be covered.

Cardiovascular Fitness
You will be able to define cardiovascular fitness, describe the functioning of the cardiovascular system, and will be familiar with the major structural features of the heart. You will learn about blood pressure, the respiratory process, features of the lungs, benefits of aerobic exercise, the types of muscle fibers, how to develop cardiovascular fitness and muscular strength and endurance, oxygen transport, how blood is carried, and body fat.

Nutrition
You will learn about the best food sources for the six major nutrients as well as the basic food groups to optimize your health benefits. Sports nutrition myths are debunked. Other topics include: hydration, weight control, fad diets, eating disorders, and the effect of stress.

Designing Your Personal Exercise Program
You will learn about common exercises and how to avoid injuries. You will learn how to track your progress and as well as how to reach specific goals. This program design will improve a) cardiovascular endurance, b) muscular strength and endurance, and c) promote positive changes in flexibility.
**PHYSICAL EDUCATION**

Grades: 9, 10, 11, and 12

Credits: 0.50

This course places priority on self-motivated physical activities that students can participate in throughout life. Students’ proficiency in the activities most important for personal development are measured with written assignments, class evaluations, and demonstrated physical skill competencies.

**Units**

**Fitness**
You will learn about the mechanics of several muscle specific stretches, the benefit of cardiovascular fitness, self-evaluations of personal fitness level, and proper technique and spotting for safe weight lifting.

**Team Sports**
You will learn the rules and regulations of various team sports, including basketball, volleyball, softball, baseball, and soccer. You will also acquire the skills that accompany these activities.

**Individual Sports**
You will learn various activities that can be performed on your own that promote lifelong fitness. Included in the unit are lessons on hiking, swimming, and running, among other activities. You will gain an appreciation for fitness and how it contributes to a higher quality of life.

**Final Exam**
JOURNALISM A

Grades: 9, 10, 11, and 12

Credits: 0.50

From examining the guidelines of proper journalism to firsthand practice in writing news, sports, and feature articles, students experience the media writing process and how it applies to today's world of journalism. In Journalism A, students review the guidelines for good journalism and learn the elements of news, feature, and sports writing.

Units

The Guidelines of Good Journalism

This unit introduces the guidelines for good journalism. In addition, you learn how to manage time and research so that publication deadlines are met on time. More importantly, you will learn about the legal issues that are important to avoid when using sources and information. To avoid these problems, skills such as summarizing, paraphrasing and attributing sources are practiced.

Learning the Process

This unit provides you with the skills and applications for mastering the process of writing a story for publication. You will learn to use a variety of sources to brainstorm for story ideas and sources as well as develop some strategies for designing and implementing surveys and interviews to provide primary sources for your stories. Overall, by the completion of this unit, you will be prepared to be a well-informed, efficient, and effective reporter.

News Writing

Within each lesson of this unit, you apply the process of thinking about stories, writing, brainstorming for ideas and sources, researching sources, drafting the first versions, copyediting, and writing the final stories. Each type of reporting has its own unique organization and writing style. To provide audience interest in your story, you may use published data, statistics, and survey results, as well as your own interviews and surveys.

Sports Writing

Whether or you are personally involved in a specific sport, you will find so many interesting topics to write about. If you are not interested in sports, you still have the ability to write about them. At the heart of all journalism is a similar set of skills that can be used to write about a football game, a bank robbery, a new film, or a tax bill. You will learn the criteria of sports reporting and develop story ideas.

Feature Writing

You use interviews and surveys for primary sources by using observations of an event or setting, including "on-the-spot" interviews. One of the best ways to make a feature story come to life is through photographs of the places and events covered, so if you are handy with a camera, you will be asked to start thinking about a story idea and looking for good photo opportunities.

Journalism A Review and Final Exam
**JOURNALISM B**

Grades: 9, 10, 11, and 12

Credits: 0.50

The second course in Journalism reviews the evolution of journalism and its role in today’s world. Students learn critical writing (reviews) as well as the steps for crafting editorials. The final unit introduces students to the basics in media design, including topics in multimedia presentation.

**Units**

**Evolution in Journalism**
You will understand the evolution of competitive journalism by analyzing the motives of William Randolph Hearst. You will explain how yellow journalism shaped the Spanish-American War. Later in this unit, you will define media and identify ways media changed in the 20th Century, including how television affected the habits and opinions of the American family. You will learn how new forms of media have changed journalism and analyze how the Internet has impacted the power of media.

**Journalism in the World Today**
You will examine the reciprocal effect that media have on political and international events. It might be said that a successful global community hinges on fair and accurate reporting. Communication among people of the world is dependent on the commitment and honesty of its journalists. When those factors are missing, communication breaks down.

**Review Writing**
You will conduct evaluations of the two products or services about which you will write. Time-management is important for setting up surveys or interviews, so make sure you have enough time to gather the information and determine your opinion. For most students, review writing is a rewarding and enjoyable endeavor!

**Opinion Writing (Op-eds)**
You have the opportunity to express your opinion on a variety of topics of your choice. The first two lessons will give you lots of ideas and links for forming an opinion about a written opinion or even creating your own opinion cartoon.

**Copy and Design**
You will learn some of the criteria for being an editor. You will learn more about the roles of the various editorial positions and what each entails. You will also consider the importance of honing your grammar and writing skills, and you will spend time practicing each. Finally, you will learn about writing good headlines.

**Journalism B Review and Final Exam**
**SPEECH AND DEBATE**

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will learn how to apply visuals, style, stories, organization, and nonverbal communication to speeches. The student will learn tactics to help overcome fear, participate in debates, and rehearse effectively. The student will also learn how to evaluate great speeches from history as well as more modern media messages.

This Speech and Debate course was developed by Connections with content and video excerpts provided by TJ Walker, Media Training Worldwide. Connections’ use of all content, including any video excerpts, is for educational purposes only, and specifically, for purposes of review, criticism, illustration or comment. All images, names, logos, and depictions belong to their respective parties.

**Units**

**Unit 1: Style and Nonverbal Communication**

Welcome to Speech and Debate. You will learn and practice skills that will help you as a public speaker for the rest of your life. You will be guided through this course by TJ Walker, one of the world’s leading authorities on media and presentation. Enjoy the learning experience as you, too, evolve into an excellent public speaker.

**Unit 2: Fear of Public Speaking**

Do you have a fear of speaking in public? Do you get nervous even when recording your outgoing voicemail message? If so, you are not alone! You will explore ways to deal with this common problem.

**Unit 3: Organizing a Presentation**

What good is a speech if the audience does not remember what was said? The more organized you are, the more likely it is that your message will be clear and memorable. You will learn strategies for organizing your speeches.

**Unit 4: Making Presentations Memorable**

Stories, as you now know, are essential components of a great presentation. You don’t want to tell a story just to tell a story, though. You need to have a message behind your story. A powerful message gets the audience thinking about and visualizing what you are saying and encourages people to take some sort of action.

**Unit 5: Using Visuals**

We are fortunate to live in an age of advanced technology. When used properly, tools such as Microsoft® PowerPoint can enhance a presentation. When used improperly, such tools can put an audience to sleep. You will learn some of the fundamentals of using visual aides.
Unit 6: Debate and Persuasion

Though Presidents Richard M. Nixon and John F. Kennedy were leaders before your time, you have certainly heard of them. What do you know about their landmark television debate?

Television had recently entered mainstream American households at that time. The Nixon/Kennedy debate went down in history because it was the first time that people running for President of the United States debated on television. Previously, the presidential debates were listened to over the radio or watched in front of an audience. How do you think a television debate might differ from a radio debate for the people debating? How would it be different for the audience?

You will learn the fundamentals of debate and analyze the famous Nixon/Kennedy television debate.

Unit 7: Great Speeches in History

You will observe some of the greatest speeches ever recorded. From memorable politicians to powerful business leaders, these speakers will give you a taste of what it means to speak in ways that create a lasting legacy.

Unit 8: Media Communication

You will examine media communication and strategies, politics in the media and media in our society.

Unit 9: Preparation, Rehearsal and Continuous Improvement

No matter how great the information you have to deliver is, no matter how witty your stories are, your presentation will not be the best it can be without rehearsing. Rehearsing is an important part of the preparation process.

You will have the opportunity to explore and develop effective preparation and rehearsal tactics to ensure your continued improvement and success as a public speaker and presenter

Final Exam
STATISTICS A (STEM FOCUSED)

Grades: 9, 10, 11, 12

Credits: 0.50

In this course, the student will become familiar with the vocabulary, method, and meaning in the statistics, which exist in the world around them. This is an applied course in which students actively construct their own understanding of the methods, interpretation, communication, and application of statistics. Each unit is framed by enduring understandings and essential questions designed to allow students a deep understanding of the concepts at hand rather than memorization and emulation. The TI-83+/84 OR 89 calculator and computers will be used to explore the world of data and the patterns which can be found by analyzing this information as well as statistical relationships. General topics of study include exploring data, planning and design of a study, and anticipating patterns.

Units

Univariate Data and Graphical Displays: Part 1
This unit begins with an introduction to univariate data, beginning with a video that covers the basics of statistics using real-world examples. Next, you will learn about different kinds of data, such as qualitative and quantitative. Different ways to display data is introduced, such as bar charts, pie graphs, plots, and histograms. You will begin to learn about data distribution in regards to center, shape, and spread. Then you will have the opportunity to practice displaying data using different methods, including using an interactive histogram. Finally, you will review and use all the information introduced in this unit prior to taking the unit test.

Univariate Data and Graphical Displays: Part 2
In this unit, you will continue the process of describing distributions by using quantities to describe the data set. Specifically, you will learn how to describe the center using the mean or the median and the spread using the range, quartiles, variance, and standard deviation. You will learn how this information contributes to the five-number summary and how to display this information in a boxplot. You will also learn about Tukey's Rule which can be used to determine if a data point is an outlier.

Introduction to Bivariate and Categorical Data
This unit provides an introduction to bivariate data beginning with classifying and identifying different types of variables, such as explanatory and response variables. You will then learn how to plot bivariate data using a scatterplot to determine if there is a relationship between the two variables. Interpreting scatterplots involves identifying and describing associations such as direction, form and strength and identifying any data points that do not seem to follow the pattern, called outliers. You will learn about correlation, such as how to calculate and interpret, and the difference between correlation and causation. Using a scatterplot, you will learn how data can be modeled with a least squares regression line and use this model to make predictions. Regressions will be evaluated through the use of residuals, as well as influential points and coefficient of determination.
Exploring Bivariate and Non-linear Data

In this unit, you will continue working with modeling and interpreting bivariate data. However, the focus will be on data in which linear regression is not the best model. You will learn about exponential data and the power function and how these can be used to model and interpret bivariate data. You will also get an opportunity to analyze bivariate data that is categorical rather than quantitative. Other concepts will include Simpson's Paradox, lurking variables, causation, and extrapolation.

Conducting Studies - Samples and Surveys

This unit introduces how reliable data can be obtained for studies, experiments, and simulations. You will learn how a sample can be used to represent a population and how to identify bias, including its affect on any conclusions drawn from the collection of data. Opportunities are provided for you to design samples and surveys, including how randomization should be used in order to obtain reliable data. You will also learn about the different types of good sampling methods that should be used to obtain reliable data as well as sampling cautions that can contribute to sampling error.

Semester Review and Exam

In this unit, you will have the opportunity to review and pull together all the information introduced in the first semester of the course in order to prepare for the semester exam.

Online Text/eBook

eText Stats: Modeling the World AP Edition

Textbook

Stats: Modeling the World AP Edition
STATISTICS B (STEM FOCUSED)

Grades: 9, 10, 11, 12

Credits: 0.50

In this course, the student will become familiar with the vocabulary, method, and meaning in the statistics, which exist in the world around them. This is an applied course in which students actively construct their own understanding of the methods, interpretation, communication, and application of statistics. Each unit is framed by enduring understandings and essential questions designed to allow students a deep understanding of the concepts at hand rather than memorization and emulation. The TI-83+/84 OR 89 calculator and computers will be used to explore the world of data and the patterns which can be found by analyzing this information as well as statistical relationships. General topics of study include exploring data, planning and design of a study, and anticipating patterns.

Units

Conducting Experiments

In this unit, you will learn about experiments and what information you can expect to obtain. Terminology related to experiments such as experimental units, treatments, factors, and levels are explained. You will learn about the different kinds of experiments and experimental designs. Experimental cautions are explained as well as how to conduct a simulation. The concept of generalizability, making generalizations about a population, is covered as well as how to control for variables that you know will affect the results, such as blocking.

Probability

In this unit, you will learn about experiments and what information you can expect to obtain. Terminology related to experiments such as experimental units, treatments, factors, and levels are explained. You will learn about the different kinds of experiments and experimental designs. Experimental cautions are explained as well as how to conduct a simulation. The concept of generalizability, making generalizations about a population, is covered as well as how to control for variables that you know will affect the results, such as blocking.

Random Variables

In this unit you will learn about random variables, such as discrete random variables and continuous random variables, including notation convention and probability distributions related to each. You will also learn how to calculate expected values and determine if a game is fair using mean, standard deviation, and variance.

Binomial and Geometric Distributions

In this unit you will learn that certain events can be described and predicted using binomial and geometric models. The criteria for each model is introduced as well as how to find the probabilities of each using mean, standard deviation, and formulas.
Sampling Distributions

This unit explores sampling distributions which provide descriptive measurements, such as mean, median, and standard deviation of a sample. You will learn how sampling statistics relate to the population through the Central Limit Theorem, normal approximations, and sample proportions and means.

Semester Review and Exam

In this unit, you will have the opportunity to review and pull together all the information introduced in the second semester of the course in order to prepare for the semester exam.

Online Text/eBook

text Stats: Modeling the World AP Edition

Textbook

Stats: Modeling the World AP Edition
HUMANITIES

ART HISTORY A

Grades: 9, 10, 11, and 12

Credits: 0.50

In Art History, students explore the basic elements and principles of art and its role in human history and the development of early cultures. Students look at how art impacted cultures from Paleolithic times to ancient Egypt, and explore the factors that affect the analysis and interpretation of art.

Units

Journey Through Ancient Art History

This unit offers a foundation of the elements and principles of art and the knowledge of what to look for when the student critiques and explores various works of art. Creating art is an important part of experiencing life. It allows the student the opportunity to express himself in a unique form. It forces the student to seek out new ways to convey his thoughts and feelings to others. Studying the art that has been created by others helps the student to understand the thoughts and feelings that motivated them to create. It opens the student’s mind to the similarities and differences among cultures and societies.

Art at the Start: Early Civilization

This unit explores Prehistoric art as well as the art and architecture of the civilizations of the fertile crescent. Historians usually consider works of art to be prehistoric if they were produced more than 5,000 years ago. This is the case with the works you will study in this unit. However, it is important to note that not all societies and cultures developed at the same time in history.

You will study the Sumerians who were responsible for the first forms of writing, law, a complex economy, irrigation methods, and singular expressions of art and architecture. The visual arts of the Sumerians were so influential that their legacy carried on in the cultures that followed: those of the Assyrians, the Babylonians, and the neo-Babylonians.

Egypt: Art on the Nile

Images of ancient Egypt abound in our imagination. The great treasures of the ancient world, such as the pyramids and the Sphinx, are instantly recognizable. In this particular unit, the student will begin by familiarizing himself with the geography and history of ancient Egypt. Then, the student will build a foundation of knowledge by getting an overview of the ancient art and architecture of this amazing civilization through the Old, Middle, and New Kingdoms.

Final Review and Exam

In this unit, you will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.
ART HISTORY B

Grades: 9, 10, 11, and 12

Credits: 0.50

In Art History, students embark on a journey of discovery examining the artistic endeavors of early Western civilizations. Students use art theory to analyze works from ancient Greece and the Roman Empire. Students gain an enhanced understanding of ancient history, as well as how art is both a reflection and engine of history.

Units

Greece: Gods and Glory

You will discover the world of Ancient Greece and the many wonders that have stemmed from this civilization. Ancient Greece is such an integral part of our modern view of the world that we see the evidence nearly everywhere we look, in our institutions and civil organizations as well as behind our ideas about beauty in art and architecture. The distinguishing periods of the ancient Greek civilization: the Archaic, the Classical, and the Hellenistic, will also be explored.

You will also look at the architecture of Ancient Greece and understand how its different styles reflect the different periods of ancient Greek history. You will explore the individual buildings and temples of Ancient Greece, namely those found on the Acropolis, the "sacred hill."

The history and beauty of Greek pottery will be explored. More than mere containers, the vases, amphorae, and other ceramics of this culture were beautiful objects that often told stories, myths, and legends on their painted surfaces.

Ancient Rome: Art of an Empire

Unit 2 embarks on a journey toward understanding life and artistic developments in ancient Rome. Early Rome, during the Roman republic, sheds light on a driving desire for territorial expansion, military initiatives, an advantageous geographical position, and views on citizenship. These topics set the stage for a gaining a deeper insight into the people, culture, and artistic legacy of ancient Rome. You will learn that Roman portrait sculptures not only serve as beautiful art pieces, but also serve as models for learning artistic influences from other societies, individualized national innovation, and esteemed ideals and perspectives. The concluding lessons on Roman architecture will demonstrate Roman ingenuity in its purest and highest manifestation.

Final Review and Exam

You will have the opportunity to prepare for and take the final exam. Since this is a comprehensive exam, it may be helpful to organize your notes in the order of the course outline before you begin to review. Using the test-taking strategies that you have previously learned can help you be successful with both objective and essay questions.
DIGITAL PHOTOGRAPHY (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

This course contains lessons in digital photography and graphic design. Students learn general photographic concepts and composition skills, elements of graphic design, and digital image-editing and special effects techniques. Students are introduced to the fields of photography, advertising, and illustration as possible career choices.

Units

Photo Essentials
In this introductory unit, you will be given a basic overview of digital photography. You will learn how the composition of a photograph is defined by framing, the angle at which the photo was taken, and the photographer’s intended perspective. You will also learn how pixels and resolution determine file size and the quality of your photographs.

You will be asked to take a photograph of an object from three different angles. You will also be asked to choose one of your photos and try different cropping techniques on it. Finally, you will experiment with saving photo files in specific file formats.

Exploring Color and Shape
You will explore color and shape with regard to digital photography. You will study the color wheel—defining primary, secondary, analogous, and complementary colors. In addition, you will explore saturation, value, and contrast, and you will complete activities on image adjustment and capturing different shapes in photographs.

You will complete a lesson on abstract art. You will learn that abstract art relies on shape, color, and brush stroke to convey a particular theme. You will be asked to use the GIMP image-editing program to create and save your own sample of abstract art.

Drawing with GIMP
You will practice drawing in GIMP. You will learn how to use layers in drawings and how to create different effects with a variety of brush types. You will be asked to make a drawing from a photograph of your choice. This activity will show you just how creative you can be when experimenting with digital photography.

You will complete a lesson on pattern and texture. You will learn how different design programs can help you show depth and contrast in your work. You will be asked to identify patterns and textures in various objects and photographs. Finally, you will complete a lab, Creating a Desktop Tile, which will require your creativity.
Creating Special Effects

You will be introduced to filters, or effects that can be applied to an image so that it is changed in unusual ways. You will explore a variety of special-effect filters in GIMP before completing the lab Adding Filters and Effects. You will also learn how to cut around a part of your image with the ellipse selection tool in GIMP.

You will complete the lab Experimenting with Filters. This lab will give you the opportunity to play with up to nine filters at once. By completing this lab, you will learn how the overuse of filters can completely distort an image.

Combining Images

You will learn how to make a composite image, or an image formed by combining two or more images to make a unified picture. You will be asked to use photographs of yourself and someone else to complete this activity. Next, you will complete the lab Creating a Double Exposure. In this lab you will learn how to combine two photographs to create a new photograph.

You will build your own panoramic picture. You will be asked to shoot a series of photos, which you will then combine to form a panorama in GIMP. Finally, you will use your imagination and creativity to create a visual hoax in GIMP.

Experimenting with Type Effects

You will study typefaces, or fonts. You will experiment with type effects, including pattern overlays, filter effects, and perspective. In addition, you will learn how to use text effectively with font type, spacing, color, and positioning.

You will complete the lab Creating Text Effects. In the lab you will experiment with different text-modifying tools in GIMP. You will find that you can change the mood of your chosen text in a variety of ways.

Building Your Portfolio

You will begin to create your own portfolio. First, you will learn how to optimize your images for viewing, which means making your image file size as small as possible. Smaller file sizes take up less computer space. Next, you will learn how to create a web gallery of your photographs in the photo-sharing program Picasa.

You will be able to share your portfolio with your teacher, family, and friends.
**LIVING MUSIC I**

Grades: 9, 10, 11, and 12

Credits: 0.50

Designed for students in grades 9–12, this course teaches fundamental musicianship skills from a Western-Classical approach, while aligning to National Core Arts Standards. The course challenges the student to improve listening, notation, analysis, performance, and improvisation skills. With audio, visual, and interactive technologies, the course provides a unique and advanced learning experience for the student.

**Units**

**Keeping Time: Understanding Rhythm**

Performing at a steady tempo with accurate rhythms is an essential skill for all musicians. In this unit, you will learn how to read, write, and interpret the rhythmic notation found in music. Composers use rhythmic notation to indicate the intended timing of their music. You will learn to interpret this notation accurately while clapping, singing, and playing an instrument.

**Keeping Score: Understanding Music Notation**

You will learn how to read, write, and interpret the common notation found in music. Being able to use music notation gives you the ability to read masterwork compositions, perform music, and create your own works to share with the rest of the world.

**It’s All Relative: The Musical Family Tree**

You will explore the many different instruments in the standard orchestra as well as instruments that are only sometimes found in the orchestra. You will learn how the use of the orchestra has evolved over time and how composers use groups of instruments for various purposes besides symphony concerts. You will learn about the conductor’s role and the special challenges a performer faces when playing with other musicians. You will also practice your music reading, you will perform, and you will compose using the sounds of orchestral instruments.

**The Big Picture: Music History and Styles**

You will travel back in time to learn about composers, compositional techniques, and styles from the Common Era of Western classical music. You will learn to recognize stylistic tendencies of each period, from the Baroque to the present. You will also try your hand at composing using techniques from past eras.


**LIVING MUSIC II**

Grades: 9, 10, 11, and 12

Credits: 0.50

Designed for students in grades 9–12, this course enhances the student’s fundamental musicianship skills from a Western-Classical approach, while aligning to National Core Arts Standards. The student will review and deepen skills and concepts of rhythm and notation learned and practiced in Living Music I. Through the use of virtual tools and analysis of classic repertoire, the student will work to improve listening, notation, analysis, performance, and composition skills. With audio, visual, and interactive technologies, the course provides a unique and advanced learning experience for the student. Living Music I is a prerequisite for this course.

**Units**

**Inspired to Move**

Performing rhythms at a steady tempo is an important musical skill. You will build upon your prior knowledge of rhythmic notation and learn how to read, write, and perform rhythms of greater complexity.

**Inspired to Relate**

The elements of pitch and harmony create color and depth in music. You will build upon your prior knowledge of melodic notation and learn how to read, write, and perform melodies and harmonic progressions of greater complexity.

**Inspired to Create**

Music is a powerful means of human expression. It can reflect the thoughts and values of an individual composer, and it can be representative of an entire culture. You will discover how Western music has changed over the last several centuries in response to cultural trends.

**Inspired to Understand**

Possessing knowledge of compositional techniques and historical context enriches your experience as a listener and performer of music. You will study four great works by Johann Sebastian Bach, Wolfgang Amadeus Mozart, Franz Schubert, and Johannes Brahms to gain a deeper understanding and appreciation of their work.
CHINESE I A

Grades: 9, 10, 11, and 12

Credits: 0.50

This is a beginning level course that will introduce the student to a variety of areas of Mandarin Chinese. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the four units, or themes, of material (introduction to Chinese, greetings, calendar, weather, and time), the student will learn to express himself using an ever-increasing vocabulary. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the Chinese-speaking world, people, geographical locations, and histories.

Units

Greetings

Each unit consists of a variety of activities that are designed for you to meet certain standards. These standards are a part of the objectives listed for each unit. You will learn how to greet people and exchange basic information like name and nationality in Chinese.

Family

You will learn how to present your family members to your peers in Chinese. Each Unit also has a rubric for a "final performance" which tells you what to do in order to show you how you have met the standards for the Unit.

Friends

Unit 3 focuses on your understanding of the nature of language through comparisons of the language studied and your own. You will learn how to introduce your friend's name, age, address and hobby in conversation while also presenting information and concepts on a variety of topics related to Chinese culture.

Time

Chinese festivals are a cultural spotlight for this unit along with teaching you how to express time in the Chinese language.
**CHINESE I B**

Grades: 9, 10, 11, and 12

Credits: 0.50

This is a beginning level course that will introduce the student to a variety of areas of Mandarin Chinese. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the four units, or themes, of material (places, family, food, activities, and school), the student will learn to express himself using an ever-increasing vocabulary. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the Chinese-speaking world, people, geographical locations, and histories.

**Units**

**Clothes and Food**

You will learn how to describe people and things; how to state likes and dislikes; and how to communicate on the topics of food, drinks, colors, and clothes. Unit 1 also transitions from Semester 1 to Semester 2 in the course, beginning with a review of the topics in Semester 1.

**Hobbies**

You will learn how to talk with somebody about hobbies, make an appointment, and ask directions properly in Chinese.

**Art**

You will learn how to describe some art patterns and how to talk about film and art works. You will also learn a series of vocabulary which have something to do with arts. In "Visit China," you will learn typical Chinese folk art like Chinese knot, paper cutting.

**Business**

Unit 8 is the last unit in the course. You will learn how to ask and describe price and brand and learn some famous company names in Chinese. You will also learn a series of vocabulary for currency.
CHINESE II A

Grades: 9, 10, 11, and 12

Credits: 0.50

Chinese II enables the students to further develop the communicative skills of listening, speaking, reading and writing of Mandarin Chinese at a more advanced level. Students are immersed in Chinese culture as virtual exchange students in China. Virtual excursions from one Chinese city to another expand their vocabulary helping them learn to interact with others and use appropriate terms to communicate in various everyday situations.

Units

School Life
You will first complete a knowledge review from Chinese 1 to help them with the transition between the two courses. Then you will learn about different aspects related to school life such as ways to greet classmates or teachers, and how to describe a typical school schedule in Chinese. For the cultural lesson, you will study the differences between Chinese and U.S educational system, you will also learn about some historical sites in Beijing, China. You will also learn to write 20 Chinese characters that appear in this unit, and study 4 radicals and their origins and meanings.

Sports and Leisure Activities
Unit 2 focuses on sports and leisure activities. You will learn the vocabulary of popular sports and leisure activities in China, ways to ask for directions or express personal opinions or feelings. You will also learn to discuss about sports injury and to use the word Zhengzai to express present tense. For the cultural lesson, you will learn about the Shaolin temple monks’ everyday rituals, and compare and contrast different styles of Chinese martial arts. You will have the opportunity to learn to write 20 Chinese characters that appear in the unit and study four radicals and their origins and meanings.

Careers
You will learn to discuss about popular occupations in China. You will accumulate the vocabulary of different occupation titles and identify skills required for different occupations in Chinese. In addition, you will learn to discuss in Chinese the process of job hunting. For the cultural lesson, you will learn about and reflect on the importance of learning a foreign language in seeking employment and career choice. You will also learn to writer 20 Chinese characters that appear in this unit, and study 4 radicals and their origins and meanings.

Travel
Unit 4 focuses on the “four corners” in China. You will learn to discuss travel arrangements such as transportation, weather, things to bring, and travel activities in Chinese. For the cultural lesson, you will learn about four beautiful cities in different regions of China and compare and contrast them with the four corners in the U.S. You will also learn to write 20 Chinese characters that appear in this unit and study 4 radicals and their origins and meanings.
**CHINESE II B**

Grades: 9, 10, 11, and 12

Credits: 0.50

Chinese II enables the students to further develop the communicative skills of listening, speaking, reading and writing of Mandarin Chinese at a more advanced level. Students are immersed in Chinese culture as virtual exchange students in China. Virtual excursions from one Chinese city to another expand their vocabulary helping them learn to interact with others and use appropriate terms to communicate in various everyday situations.

**Units**

**Places Where We Live**

Chinese architecture is discussed. You will learn new vocabulary and sentence structures used to describe various architectural formats and styles including Suzhou garden architecture, school architecture, as well as Feng Shui related to Chinese people’s general dwelling. For the culture lesson, you will learn about Feng Shui tips and traditions related to Chinese architecture. You will compare and contrast the Chinese and U.S. architecture styles. You will also learn to write 20 Chinese characters that appear in this unit and study 4 radicals and their origins and meanings.

**Community and Celebrations**

You will study the vocabulary, sentence structures, and grammar points related to Chinese festivals and traditions. Several typical Chinese festivals are introduced including the moon festival and Chinese Valentine’s Day. For the cultural lesson, you will learn about the origins of several Chinese festivals and compare and contrast the Chinese festivals with your favorite western festivals. You will also learn to write 20 Chinese characters that appear in this unit, and study 4 radicals and their origins and meanings.

**Food and Clothes**

You will study ways to order in a restaurant using Chinese. You will also learn the vocabulary, sentence structure, and grammar points related to buying items in a supermarket. In addition, you will learn about being a guest in someone’s house. For the cultural lesson, you will study about some famous Chinese dishes or food items as well as their origins. You will also learn about traditions and etiquettes in Chinese banquets. You will also learn to write 20 Chinese characters that appear in this unit and study 4 radicals and their origins and meanings.

**Art, Music, and Recreation**

You will learn about art and music in China in Unit 4. You will study about an art form that is very popular in China – yu (jade). You will learn about different forms of jade arts, as well as the origins and traditions behind the jade. You will then learn about pop music in China, as well as the vocabulary, sentence structures, and grammar points related to Chinese pop music. For the cultural lesson, you will study and discuss the origin and tradition of jade ornament used as presents between family members. You will also learn to write 20 Chinese characters that appear in this unit and study 4 radicals and their origins and meanings.
**CHINESE III A**

Grades: 9, 10, 11, and 12

Credits: 0.50

In Chinese III, the student will continue to expand his abilities in various aspects of Chinese Mandarin learning. The student will continue to build his knowledge in vocabulary, sentence patterns, and grammar points in communicative contexts. He will also enhance his Chinese Mandarin listening and speaking skills such as pronunciations and intonations. The student will learn more in-depth Chinese reading and writing strategies and skills. His Chinese reading abilities and efficiency will be greatly improved and will be able to write in Chinese in various formats such as a journal, letter, invitation, and an essay. The student's knowledge and skills in writing simplified Chinese characters will also be enriched and fortified.

The student will learn more about the essential Chinese culture knowledge including the origins, histories, anecdotes, and etiquettes for various cultural settings, events, or occasions. He will also gain the ability to compare and contrast the Chinese culture with his own cultures in many different aspects.

**Units**

**Family and Friends**

You are going to learn about typical family structure. You will be working on an interactive family tree by completing it according to the audio prompts. Then you will study Chinese surnames and given names. You will learn the five most popular Chinese surnames, their meanings and origins. You are also required to choose a Chinese name and discuss about its meaning and origin, as well as other background information. Besides the two main topics, you will also learn about dating rituals, different ways to communicate, and expressions of love. You will be able to learn about the famous Chinese love story Liangzhu, and compare it with Romeo and Juliet. At the end of the unit, you will review the entire unit and take the unit exam.

**Anatomy and Medicine**

You will focus on body parts and Chinese medicine. In the first lesson “Body Movements and Chinese Medicine”, you will study the five famous Chinese folk dances, and learn about terms for body movements. Then you will study typical Chinese herbal treatments that can help heal common illness such as cough or fever. In this unit, you are also exposed to some interesting Chinese medicine concepts such as homeopathic remedies, acupuncture, and diet treatment. In the end, you will also learn the special terms used by patients and doctors to describe pain and injury. At the end of the unit, you will review the entire unit and take the unit exam.

**Li Bai Poetry**

You are taught the basic concepts about Chinese poetry. First you will be engaged by poems written by famous poets in Chinese history such as Li Bai, Du Fu, and Li Qing Zhao. You will then learn about the basic principles of writing a traditional Chinese poetry. You will also learn about the Du’ou and Du Zhang rules that are commonly used when writing a Chinese poem. You are required to write a Chinese poem by applying these rules. In addition, you will also compare and contrast Chinese folk songs and poetry. At the end of the unit, you will review the entire unit and take the unit exam.
**Education and Community**

You are going to learn about college life. In the beginning, you will be introduced the college application process in China, and you will learn about the college life in China including the college course setup, everyday schedule, and about students’ leisure activities in Chinese colleges. You will be required to create a college application of your own in Chinese after you have learned these lessons. In addition, you are going to study about Chinese college art festival and create a brochure for an art festival. Toward the end of the unit, parental influence on students is discussed, and you will learn about the alternatives to higher education in China. At the end of the unit, you will review the entire unit and take the unit exam.
**CHINESE III B**

Grades: 9, 10, 11, and 12

Credits: 0.50

In Chinese III, the student will continue to expand his abilities in various aspects of Chinese Mandarin learning. The student will continue to build his knowledge in vocabulary, sentence patterns, and grammar points in communicative contexts. He will also enhance his Chinese Mandarin listening and speaking skills such as pronunciations and intonations. The student will learn more in-depth Chinese reading and writing strategies and skills. His Chinese reading abilities and efficiency will be greatly improved and will be able to write in Chinese in various formats such as a journal, letter, invitation, and an essay. The student's knowledge and skills in writing simplified Chinese characters will also be enriched and fortified.

The student will learn more about the essential Chinese culture knowledge including the origins, histories, anecdotes, and etiquettes for various cultural settings, events, or occasions. He will also gain the ability to compare and contrast the Chinese culture with his own cultures in many different aspects.

**Units**

**Environment and Health**

You are going to learn about pollution in China and discuss about suggestions that can be made to help with the pollution situation in China. Then you will study the current affairs about recycling in China. A collaborative assessment is provided here for you to work with others as a group, to provide constructive suggestions for environment in China. Then reforestation is discussed, and you will learn about pandas and panda natural reserves. You will also study about environmental clubs and environmental art in China. You are also required to create an art piece from a recycled item such as a coke cam. At the end of the unit, you will review the entire unit and take the unit exam.

**Entertainment and Generations**

You are going to learn about popular activities from different points of view. You will learn how to communicate formally and informally. On grammar, you will learn how to express past, present, and future tenses in Chinese correctly. An interesting topic, Karaoke, will be discussed, and you are going to compare and contrast western and Chinese music, popular recreational activities, as well as Chinese and Western economics and their mutual impact. At the end of the unit, you will review the entire unit and take the unit exam.

**Finding Work**

This is a short unit but you are going to learn very useful knowledge about job hunting in China. You will learn about finding employment in China, and you will study useful tips to be used during job interviews. In addition, volunteerism in China is discussed. By studying this unit, you will realize the importance of learning Chinese in the modern society, to bring more job opportunities. At the end of the unit, you will review the entire unit and take the unit exam.
**FRENCH I A**

Grades: 9, 10, 11, and 12

Credits: 0.50

The goal of this course is to give the student basic listening, speaking, reading, and writing skills through interesting and engaging activities. This course is organized into five topics including greetings, calendar, weather, time, and colors. The student will learn to talk about himself and other people, describe his surroundings, and use numbers for dates and times. The student will be introduced to regular verbs in the present tense and will practice simple grammatical structures in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the student understand the context of the language and the perspectives of the French-speaking world.

**Units**

**Bonjour**

In this unit, students will learn to:

- Introduce themselves to someone and ask their name
- Ask how someone is
- Ask where someone lives
- Ask others for some basic information in real conversations
- Recognize and recite the French alphabet
- Spell words out loud using the French alphabet
- Use appropriate basic vocabulary to greet people at different times of the day
- Choose the right farewell for the situation
- Begin to learn about the complex nature of language
- Understand French culture and how it differs from others
- Recognize the contributions that French-speaking countries have made to the world

**Le Jour et La Date**

This unit covers the following:

- Talking about days of the week and months
- Expressing dates
- Expressing likes and dislikes
- Using subject pronouns
- Numbers from 1–31
- Cultural aspects
Le Temps
In this unit, students will:
- Talk about the weather
- Talk about the seasons
- Convert degrees from the Fahrenheit scale to Centigrade and vice versa
- Express possession
- Learn the indefinite articles
- Manipulate regular -er verbs
- Talk about what to wear in various situations
- Learn about Switzerland

L’Heure
In this unit, students will:
- Talk about places in a town
- Talk about things to do in school
- Talk about things people do at different places in a town
- Manipulate some irregular verbs
- Manipulate regular -ir and -re verbs
- Learn to ask yes/no and information questions
- Learn about French-speaking Canada

Les Couleurs
In this unit, students will learn:
- to describe themselves and others using être and adjectives
- To describe things using colors
- That adjectives in French have different forms based on gender and number
- That most adjectives in French are placed differently than in English
- Additional people nouns
- How to talk about basic things that might be in a school, desk, or backpack
- How to talk about their school day
- About Côte d’Ivoire (Ivory Coast)

Exam
This unit contains the Semester Exam
**FRENCH I B**

Grades: 9, 10, 11, and 12

Credits: 0.50

The goal of this course is to continue to give the student basic listening, speaking, reading, and writing skills through a variety of activities. Throughout the course, the student will learn to talk about himself and other people, describe his surroundings, and use numbers for dates and times. The student will be introduced to irregular verbs in the present tense and will practice simple grammatical structures in innovative and interesting ways with a variety of learning styles in mind. In this course, the student will also begin to learn some complex grammar. Culture is presented throughout the course to help the student understand the context of the language and the perspectives of the French-speaking world.

**Units**

**Les Endroits**
In this unit, students will learn to:
- Talk about their cities or towns
- Talk about additional stores or places in their towns
- Describe where things are in relation to other things in a town
- Talk about things they do, like to do, need to do, want to do, or have to do
- Talk more about cognates
- Research and gather information about Québec
- Understand more about cities in French-speaking countries

**La Famille**
In this unit, students will:
- Talk about their family members
- Talk about family members' birthdays and ages
- Review dates and numbers
- Investigate cultural practices in French families
- Learn possessive adjectives
- Research holidays in the French-speaking world
- Learn additional cognates
- Learn additional verbs and how they work in French
Las Cuisine
In this unit, students will:

• Talk about foods
• Learn to order food and converse in a restaurant
• Learn the partitive article in French
• Learn additional factors in making a sentence negative in French
• Learn about dining habits in the French-speaking world

Les Passetemps
In this unit, students will:

• Talk about sports and leisure time activities in the French-speaking world
• Learn how to talk about what they like to do
• Learn the verb "jouer"
• Learn what activities they might be able to do in the French-speaking world
• Learn to talk about what games they like to play
• Learn to talk about how frequently they do activities
• Learn the stress pronouns and additional prepositions to use them with
• Learn additional cognate patterns

L’Ecole
In this unit, students will:

• Talk about schools and school activities in the French-speaking world
• Learn to talk about their school day in more detail
• Learn to talk about their house
• Learn to talk about chores and responsibilities they have at home
• Learn to talk about their plans
• Review verb structures they have had in this year of French
• Learn additional cognate patterns

Semester Exam
This unit contains the Semester Exam
FRENCH II A

Grades: 9, 10, 11, and 12

Credits: 0.50

This course builds on the skills the student learned in French I. In this course, the student will be introduced to a variety of areas of language learning. The student will learn listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics: daily routine, animals, hobbies, the body, and descriptions. Throughout this course, the student will learn to express himself using an ever increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements of the French-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

Units

La Routine
In this unit, students will learn to:
- Talk about what they do in a typical day
- Review telling time
- Continue to develop conversational skills
- Learn about important geographical regions in France

Les Animaux
In this unit, students will:
- Learn to talk about farm animals
- Learn to talk about tropical forest animals
- Compare nouns
- Form the superlative in French
- Use demonstrative adjectives to talk about which things they prefer
- Learn additional cognate patterns
- Learn about Corsica, another of France's regions

Les Distractions
In this unit, students will:
- Talk about their hobbies
- Talk about sports and other pastimes
- Make comparison statements
- Make superlative statements
- Learn direct object pronouns and placement
- Study another of France's regions
Le Corps
In this unit, students will:

- Talk about the body
- Talk about what different body parts do
- Talk about a doctor's visit
- Talk about various illnesses
- Learn indirect object pronouns
- Begin to learn the preterit (past tense) verb forms
- Learn about the Midi-Pyrenées region in France

La Description
In this unit, students will:

- Describe themselves and others using être and adjectives
- Learn more of the past tense verbs in French
- Learn to use the passé composé with être
- Learn to talk about people's nationalities
- Learn about the French region of Aquitaine

Semester Exam
This unit contains the Semester Exam
FRENCH II B

Grades: 9, 10, 11, and 12

Credits: 0.50

This course is a continuation of French II A. The student will continue to be introduced to a variety of areas of language learning. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics: house, shopping, entertainment, spare time, and travel. In this course, the student will learn to express himself using an ever increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements of the French-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

Units

La Maison
In this unit, students will learn to:

• Talk about their house (rooms and furnishings)
• Learn additional expressions to talk about things that are happening now
• Learn additional cognate patterns
• Learn about homes in other countries
• Continue to develop conversational skills in French

Les Achats
In this unit, students will:

• Learn to talk about shopping
• Compare things and people
• Talk about fashion
• Talk about their preferences
• Learn the numbers beyond one hundred
• Talk about activities that happened in the past
• Learn additional cognate patterns
Les Loisirs
In this unit, students will:

• Talk about events they can go to
• Talk about eating at a restaurant
• Learn negative expressions
• Talk about things that they enjoy
• Talk about how frequently they do things
• Talk about when things happen (today, yesterday, tomorrow)

Le Temps Libre
In this unit, students will:

• Talk about sports and other activities
• Learn additional expressions to talk about how they feel
• Learn additional cognate patterns
• Learn additional expressions to talk about who items belong to
• Talk about activities that happened in the past
• Talk about what hobbies or activities they like to do in their spare time

Le Transport
In this unit, students will:

• Learn to talk about taking a trip internationally
• Plan an international trip
• Learn to ask about where things are located in a city
• Learn to talk about things that are going to happen in the near future
• Talk about things that happened in the past
• Talk about things you know and about people/places you are familiar with
• Learn additional false cognates
• Review telling time

Semester Exam
This unit contains Semester Exam
**FRENCH III A**

Grades: 9, 10, 11, and 12

Credits: 0.50

French III A is a continuation of the first two years of French instruction. The student will continue to improve his listening, speaking, reading, and writing skills through a variety of activities. The course is organized into five topics: feelings, transportation, work, countries, and the future. Throughout this course, the student will build on his previous French knowledge. The student will learn additional vocabulary, verb tenses, and grammatical structures that are appropriate to his level. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Exposure to the culture of France and other French-speaking countries can be found throughout the course in order to help the student understand French, which is a dynamic language that is used by millions of people throughout the world.

**Units**

**Les Sentiments**

In this unit, students will learn:

- Additional negative expressions
- Adverbs used in negative expressions
- New idiomatic expressions
- New concepts with the Passé Composé
- Cultural information about France
- Talking about free-time activities
- Describing people in more detail

**Le Transport**

In this unit, students will learn:

- Formation of adverbs
- Adverbs of place
- Commands
- Vocabulary about transportation
- Cultural issues having to do with travel
- The Michelin Guide
- The Chunnel
Au Travail!
In this unit students will learn:

- Interrogative pronouns
- Pronouns with commands
- Relative pronouns
- Imperfect tense
- Expressions of obligation

Les Pays et les Nationalités
In this unit, students will learn:

- More on relative pronouns
- When to use the passé composé or the imperfect
- Interrogative pronouns
- Vocabulary
- Qui, Que, Quoi, Dont
- The pronoun Y

L’Avenir
In this unit, students will learn:

- Pronoun en
- Placement of pronouns
- Vocabulary on the French Educational System
- About Canada
- How to write a letter
- The future tense
- The conditional tense
- "Si" clauses

Semester Exam
This unit contains the Semester Exam
**FRENCH III B**

Grades: 9, 10, 11, and 12

Credits: 0.50

French III B is a continuation of the first two and a half years of French instruction. The student will continue to sharpen his listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics: health, home, measurement, professions, and my history. The student will learn to express himself using an ever-increasing vocabulary, verbs in various tenses, articles, and adjectives. The student will review all verb tenses, including present tense, past tense, future tense, conditional tense, the passive voice, imperative verbs, and more. The student will learn to use two-object pronouns and review grammar from previous French instruction. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements of the French-speaking world and culture appear throughout the course, including people, geographical locations, and histories. The student will also learn about the various countries where French is spoken.

**Units**

**La Sante**
In this unit, students will be introduced to:
- The health professions vocabulary
- Vocabulary and expressions to talk about physical and mental health
- Reflexive and reciprocal verbs
- Speaking in the past tense review

**La Maison**
This unit covers the following:
- Reviewing uses of "en"
- Irregular verb vivre
- Difference between vivre and habiter
- Talking about your house and where things are located in your house; what things are used for in your house
- Adverbs
- Conditional
- Command form
- Comparative/Superlative
Les Mesures
This unit covers the following:

- Review of verb tenses
- Review of numbers
- Comparatives and superlatives
- Causative faire
- Expressions with faire
- Cultural practices with regard to measuring distance, volume and weight

Les Professions
This unit covers the following:

- Vocabulary related to working
- Vocabulary related to education
- Review of relative pronouns
- Pronouns—how to ask and answer questions with pronouns.
- Using prepositions with pronouns
- Review of vocabulary related to weather and units of time

Mon Histoire Personnelle
This unit covers the following:

- Vocabulary and expressions to talk about yourself
- Expressions of time
- The passive voice
- Expressing quantities
- A review of the pronouns y and en
- A review of all the tenses learned so far
- Talking about things you used to do
- An overview of what the European Union is

Semester Exam
This unit contains the Semester Exam
**FRENCH IV A**

Grades: 9, 10, 11, and 12

Credits: 0.50

In the first semester, students cover present-tense verbs, past-tense verbs, future tense, conditional tense, subjunctive mood, articles, and adjectives while delving more deeply into French culture. This course, rich in authentic reading material, uses native speaker recordings to enrich culture, grammar, and vocabulary lessons.

**Units**

**Les Gens**

In this unit, students will be introduced to:

- French historical and cultural information
- Additional family members they might wish to talk about
- Irregular plural noun patterns
- Irregular feminine adjective formations
- Adjective and adverb placement
- Cultural information about families and weddings
- Well-known French-speaking personalities

**La Realisation**

In this unit, students will learn:

- To explain about things they have accomplished
- To talk about activities that involve uncertainty or doubt
- To express what you want others to do, what they wish others would do, etc.
- To express what others wish or want for them to do.
- To gather information about a French-speaking city
- Cultural and historical issues

**Les Desirs**

In this unit, students will be introduced to:

- Talking about what their desires are
- Talking about things they hope will happen
Les Activités
In this unit, students will review:

- Talking about things they like to do in the outdoors
- Talking about things they want others to do
- Expressing that others want them to do certain things
- Talking about things related to the outdoors and to cities in general

They will be introduced to:

- How to talk about what has happened by a certain time

Les Fêtes
In this unit, students will review:

- How to talk about things that are happening
- How to talk about things that will happen
- How to talk about things that happened in the past
- How to talk about dates and days

Students will be introduced to:

- Special dates and holidays in the French-speaking world
- How to talk about what will have happened by a certain time

Semester Exam
This unit contains the semester exam.
**FRENCH IV B**

Grades: 9, 10, 11, and 12

Credits: 0.50

In the second semester students continue to cover present-tense verbs, past-tense verbs, future tense, conditional tense, subjunctive mood, articles, and adjectives while delving more deeply into French culture. This course, rich in authentic reading material, uses native speaker recordings to enrich culture, grammar, and vocabulary lessons.

Units

**Possibilités**

In this unit, students will:

- Review talking about the future and things that would happen (if other conditions were met)
- Learn patterns in words
- Analyze proverbs in French
- Learn about France and their contributions, musically and artistically, to the French-speaking world

**Le Passe**

In this unit, students will:

- Use adverbs to talk about how frequently or how well they do things
- Talk about their past and things that happened in the past

Students will be introduced to:

- Verbs in the past tense that take on a special meaning
- New proverbs in French
- Additional suffix patterns that will help them expand their vocabulary in French
- Additional food vocabulary

**Les Arts**

In this unit, students will learn to:

- Learn to talk about what others have said
- Learn about the fine arts in the French-speaking world
- Review the correct sequencing of tenses for expressing thoughts in the past, present, and future
- Learn additional proverbs or sayings that are well known in the French-speaking world and that will help them gain insight to the French thought process
- Learn about artists, both contemporary and historic, of great significance
- Learn to talk about other art forms and learn ways in which they relate to the French-speaking world
Maintenant
In this unit, students will:

- Learn vocabulary that will allow them to talk about electrical items that are very common in today's world
- Learn to talk about actions that happen that were not planned
- Review irregular verbs in French in order to be able to use them in conversation
- Learn shortcuts in order to be able to use colloquial expressions instead of always using the noun
- Learn additional idioms and sayings in French and learn to analyze them for understanding
- Sharpen listening skills

C’est Fini!
In this unit, students will:

- Review talking about happenings in the past, present, and future
- Review "shortcuts" for talking about others using a variety of pronouns
- Review ways to talk about how they do things
- Learn of additional writers important to the French, both contemporary and historical
- Learn of additional traditions that are important to the French-speaking world

Semester Exam
This unit contains the Semester Exam
GERMAN I A

Grades: 9, 10, 11, and 12

Credits: 0.50

This is a beginning level course that will introduce the student to a variety of areas of language learning. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the five units, or themes, of material (greetings, the date, weather, time, and colors), the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

Units

Unit 1: Die Grüße
Understanding the German language and culture offers great opportunities for appreciating art, history, and science. You will learn and recite the German alphabet, respond appropriately to good and bad news regarding various topics, greet, ask where others are from, and bid farewell in written German.

Unit 2: Der Kalender
Learning the basics of any language is essential to communicating effectively. You will learn the days of the week, numbers, and dates in German. You will examine calendars and participate in activities that require you to write, recite, and discuss.

Unit 3: Das Wetter
The climate of German-speaking countries and the climate in the United States are similar. You will examine the weather in these two countries. You will also learn how to discuss your likes and dislikes and use interrogatives and conjugating verbs.

Unit 4: Die Uhrzeit
In this unit, you will use the location and time vocabulary that you have learned to provide and obtain information, present information about everyday activities, and solve and explain solutions to simple math problems orally.

Unit 5: Die Farben
You will be taking a closer look at the German school system, school supplies, and school subjects. You will learn new adjectives to describe items, colors, and cognates. You will also identify, discuss, and analyze themes, ideas, and perspectives related to cultural products.
**GERMAN I B**

Grades: 9, 10, 11, and 12

Credits: 0.50

German I B is the second semester of a beginning level course that will introduce the student to a variety of areas of language learning. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the five units, or themes, of material (city, family, food, leisure time, and school and chores), the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

**Units**

**Unit 1: Die Stadt**

This unit will present you with vocabulary and skills which are essential for understanding and communicating in authentic German. In this unit you will compare living in the city versus the country, express living preferences and desires, obligations, and abilities. You will also learn about the Austrian culture and its parallels and differences to the United States.

**Unit 2: Die Familie**

You will learn about German culture and history, by creating a family tree and comparing our shared national history. You will also learn how to express family information, including relationships and birthdays through writing and speaking.

**Unit 3: Das Essen**

There are many types of foods and preferred meals in the world. You will be exploring what mealtimes and food consist of in Germany's Black Forest. You will learn new vocabulary that will help you describe these foods and the culture of the Black Forest.

**Unit 4: Die Freizeit**

There are many different types of leisure activities and most vary from one culture to the next. You will learn what German speakers enjoy doing in their free time. You will also share your own leisure activities and compare the cultural similarities and differences.

**Unit 5: Die Schule und Pflichten**

You will study the German school system. You will identify common school objects that all cultures recognize. Then you will compare and contrast cultural similarities and differences between German and American schools and create a school schedule that showcases the similarities and differences.
**GERMAN II A**

Grades: 9, 10, 11, and 12

Credits: 0.50

German II A is an intermediate level course that will introduce the student to a variety of areas of language learning. In this course, the student will continue to learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the five units, or themes, of material (daily routine, animals, pastimes, the body, and descriptions), the student will learn to express himself using an ever-increasing vocabulary, past-tense verbs, demonstrative articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

**Units**

**Unit 1: Der Tagesablauf**

You will review German vocabulary and grammar structures and will talk about daily routines in German. You will learn how to introduce yourself in German, use reflexive verbs to describe daily activities, and tell and ask time. Then you will explore Bavarian culture through reading and discussion activities.

**Unit 2: Die Tiere**

You will cover three major topics throughout this unit including German vocabulary for animals, describe various animal features, and the comparative forms of adjectives to communicate about caring for pets. Then you will learn how to use the correct negative forms of words depending on its sentence structure, and you will also adjust demonstrative articles according to case. Finally, you will learn about the development of the German capital and common expressions that people use Berlin.

**Unit 3: Die Freizeit**

You will explore sports and pastimes enjoyed by German people and engage in conversations about your own hobbies and interests. You will also learn how to make comparison and superlative statements, proper placement of direct object pronouns in a sentence, and use the future tense of the verb to describe upcoming plans.

**Unit 4: Der Körper**

You will learn German vocabulary for the parts of the body. You will explore common expressions that people use for the different parts of the body using indirect object pronouns. Then, you will learn how to report and describe physical complaints or illnesses to a doctor.

**Unit 5: Die Beschreibung**

You will practice and review how to describe people’s nationalities and learn the German names for many of their fellow European Union member countries. You will also learn how to describe yourself and others using “sein” and adjectives, obtain and present information about people's nationalities and use verbs of motion in the past tense.
GERMAN II B

Grades: 9, 10, 11, and 12
Credits: 0.50

This course is a continuation of German II A. In this course, the student will continue to learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the five units, or themes, of material (house, shopping, leisure, travel destinations, and flying), the student will learn to express himself using an ever-increasing vocabulary, past-tense verbs, dative expressions, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

Units

Unit 1: Das Haus
The focus of this unit is on the home. You will learn new vocabulary for the rooms of a house and the types of furnishings that can be found within each room. In addition, you will learn about the differences between homes in German-speaking countries and other countries throughout the world. By the end of the unit, you will discuss events in the past, explore cognate patterns, and learn more about prepositions.

Unit 2: Das Einkaufen
You will go shopping. You will use numbers greater than 100 to understand prices of items and practice your German by asking for and understanding information as it related to shopping for various items. You will also compare the shopping habits between Germans and Americans, explore European currency, and learn more about Germany's largest department store.

Unit 3: Die Freizeit Angebot
You will learn about leisure activities in Germany in this unit including sports, entertainment, and food. You will learn new vocabulary throughout the unit, and you will continue to expand your grammar skills in German. You will practice German using more past terms, adjective and adverbial phrases of time, and negative responses to various questions.

Unit 4: Reiseziele
You will explore various modes of transportation. In particular, you will learn that the most common transportation method is by train. You will also learn new German vocabulary for traveling and camping. By the end of the unit, you will be able to demonstrate your understanding of dependent clauses, use indirect questions, and give commands.

Unit 5: Flugreisen
You will continue your study German by exploring air travel as a mode of transportation. You will continue to build on your German vocabulary and grammar skills by using terms related to travel, airports, and other methods of public transportation. You will also learn about the economic importance of Airport Frankfurt Hahn in Frankfurt, Germany, which is the third busiest international airport in Europe.
**GERMAN III A**

Grades: 9, 10, 11, and 12

Credits: 0.50

German III A is a continuation of the first two years of German instruction. In this course, the student will continue to learn and practice successful communication through speaking, writing, reading, and listening. Throughout the five units, or themes, of material (Die Gefühle, Der Verkehr, Bei der Arbeit, Land und Leute, and Die Zukunft), the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

**Units**

**Unit 1: Ferien**

Germans are among some of the most traveled people in the world. When provided the opportunity to get away, most Germans take off for places all over the world. Even within Germany’s borders, the places to visit are abundant. You will explore vacation destinations in Germany, discuss leisure activities, learn new vocabulary, and keep a travel log.

**Unit 2: Gesund Leben**

You will learn about Kurort’s or “towns with a health resort and spa.” Baden-Baden, Germany is known across Europe as a premier place to come to relax and tend to one’s overall health. You will examine the culture of Baden-Baden through reading, discussion, and writing activities.

**Unit 3: Rechte und Pflichten**

You will learn about the German school system and its requirements for graduation. Throughout the unit, you will also examine the rights and responsibilities of 18-year-olds; the Abitur, which is similar to an associate’s degree; Gymnasium, or high school, studies; and military and civilian service professions.

**Unit 4: Miteinander Leben**

Relationships between and among people and countries are very important. You will learn how to talk about relationships. In addition, you will explore friendships, fashions and trends, and the culture that existed between East and West Germany.

**Unit 5: Märchen**

Most Americans think of fairy tales when they hear a mention of the Grimm Brothers. However, many German speakers think not only of the Kinder- und Hausmärchen, but they also think of the major contributions to scholarly work that these two men made as well as their devotion to democracy and the preservation of the German culture. You will learn about the brothers and the fairy tales that have been made famous by them.
**GERMAN III B**

Grades: 9, 10, 11, and 12

Credits: 0.50

This course is a continuation of German III A. In this course, the student will continue to learn and practice successful communication through speaking, writing, reading, and listening. This course presents material according to a specific theme, and the student will learn to express himself through a variety of activities using his ever-increasing vocabulary and grammar knowledge. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

**Units**

**Unit 1: Medien**

Movies, television, newspapers, and magazines transcend the entire world. You will learn vocabulary that is used when talking about media and how media affects culture in German-speaking countries. You will also explore the use of propaganda in German media.

**Unit 2: Meine Kindheit**

People often reminisce about their childhood memories. You will learn how to talk about the events that happened during your childhood. You will also read short selections and learn about Franz Marc, Haribo, Diddl, Ligretto, and other aspects and figures of German pop culture.

**Unit 3: Meine Zukunft**

Students in Germany may attend university for various studies, or they may begin an occupation after high school. You will learn more about university and vocational options for German students. You will also learn the vocabulary that is used when talking about occupations and review relative pronouns.

**Unit 4: Guten Appetit**

Food is at the center of many cultures, and German culture is not an exception. You will explore various items relating to food. You will learn how to read German menus and recipes in German cookbooks. You will also learn about the vocabulary that is used when talking about restaurants and cooking, review adjective endings, and practice using the subjunctive to make polite requests.

**Unit 5: Die Umwelt**

Understanding the problems that involve the environment and taking care of it is the focus of this unit. You will learn about the environment in Germany, the problems of the environment there, and any possible solutions. You will also learn new vocabulary that is related to the environment and how to form and use the past tense of the passive.
**JAPANESE I A**

Grades: 9, 10, 11, and 12

Credits: 0.50

Japanese I A is a beginning-level course that will introduce the student to a variety of areas of the Japanese language. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics: greetings, the date, time, colors, and places. The student will learn to express himself using an ever-increasing vocabulary, present-form verbs, particles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. The student will also learn about the Japanese people, their culture, society, and history.

**Units**

**Unit 1: Greetings**

Students will learn to:

- Introduce themselves to someone and ask their name
- Ask how someone is
- Ask where someone lives
- Ask some basic information from others in real conversations
- Recognize and recite _hiragana_, one of the Japanese phonetic characters
- Spell words using _hiragana_
- Use appropriate basic vocabulary for greeting people at different times of day
- Choose a farewell appropriate in various situations
- Begin to learn about the complex nature of language
- Investigate the Japanese culture and how it differs from theirs with regard to talking to an individual
- Begin to realize the contributions that Japanese have made to world culture

**Unit 2: Calendar**

Students will learn to:

- Talk about the day of the week
- Learn the numbers 0–31
- Talk about the date
- Talk about what things they like to do on different days
- Talk about their birthdays
- Learn about several cultural aspects of Japan
• Learn about additional hiragana characters and sounds
• Learn to identify someone or something
• Learn to ask yes or no questions

Unit 3: Time
Students will:
• Talk about time
• Talk about places in a town
• Talk about things to do in school
• Talk about things students do at different places in town
• Learn to ask yes/no and information questions
• Learn more numbers, up to 100
• Learn about an old capital city of Japan, Kyoto
• Learn to give feedback in communication
• Practice typing in hiragana

Unit 4: Colors
Students will:
• Describe themselves and others using adjectives
• Learn to describe things using colors
• Learn how to talk about basic things that might be in a school, desk, or backpack
• Learn how to talk about their school day
• Learn how to talk about what you like or dislike
• Learn katakana

Unit 5: Places
Students will:
• Talk about their own cities or towns
• Talk about stores or places in their towns
• Describe where things are in relation to other things in their town
• Talk about things they do or are doing, like and dislike to do, or want to do
• Review katakana
**JAPANESE I B**

Grades: 9, 10, 11, and 12

Credits: 0.50

Japanese I B is a beginning-level course that will introduce the student to a variety of areas of the Japanese language. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics: family, weather, food, pastimes, and school. The student will learn to express himself using an ever-increasing vocabulary, present-form verbs, particles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. The student will also learn about the Japanese people, their culture, society, and history.

**Units**

**Unit 1: Family**

Students will:

- Talk about family members
- Talk about family members' birthdays and ages
- Review dates and numbers
- Learn the dictionary forms of verbs
- Investigate cultural practices in Japanese families
- Start to read and write kanji

**Unit 2: Weather**

You will learn to:

- Talk about the weather
- Talk about the seasons
- Convert degrees from the Fahrenheit scale to Centigrade and vice versa
- Talk about what to wear in various situations
- Talk about what they like to do
- Learn new kanji
Unit 3: Food
Students will:

- Talk about foods
- Learn to order food and converse in a restaurant
- Learn about a verb form, so called “て form” of verbs
- Learn expressions to make requests using ～て form
- Learn about dining habits in Japan

Unit 4: Pastime
Students will:

- Talk about sports and leisure time activities in Japan
- Learn how to talk about what they like to do
- Learn how to talk about what they do well
- Learn how to invite someone for some activities
- Learn how to make a phone call

Unit 5: School
Students will:

- Talk about schools and school activities in Japan
- Learn to talk about their school day in more detail
- Learn to talk about their houses
- Learn to talk about chores and responsibilities they have at home
- Learn to talk about their plans
- Review verb structures they have had in this year of Japanese
JAPANESE II A

Grades: 9, 10, 11, and 12

Credits: 0.50

This course builds on the skills the student learned in Japanese I. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics: daily life, animals, activities, the body, and descriptions. The student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Throughout the course, the student will explore the Japanese people, their culture, lifestyle, geographical locations, and histories.

Units

Unit 1: Daily Life

Students will learn to:

- Review Japanese sounds, Hiragana and Katakana
- Review introducing themselves
- Review verbs
- Talk about what they do in a typical day
- Review numbers 1–100
- Review telling time
- Continue to develop conversational skills
- Learn more about the history of Japan

Unit 2: Animals

Students will:

- Learn to talk about domestic animals
- Learn to talk about many other animals
- Compare nouns
- Use demonstrative adjectives to talk about which things they prefer
- Learn about different musical styles in Japan
- Learn the present progressive in Japanese
Unit 3: Activities

Students will:

• Talk about hobbies
• Talk about sports and other pastime activities
• Make comparison statements
• Make superlative statements
• Study art from Japan and Japanese artists
• Talk about things they like to do (Noun / Dictionary Form of Verb十の）がす・shy;です。)
• Talk about preferences and desires （Pre-MASU form of Verb +たいです。Nounがほしいです。）
• Talk about plans (Dictionary Form of Verb +つもりです)

Unit 4: The Body

Students will:

• Talk about the body
• Talk about what different body parts
• Talk about a doctor's visit
• Talk about various illnesses
• Begin to learn past tense verb forms

Unit 5: Descriptions

Students will:

• Describe themselves and others using I-adjective and NA-adjective
• Describe themselves and others using a Noun and です
• Learn more of the past tense verbs in Japanese.
• Learn to talk about people's nationalities
• Learn about how to quote
• Learn about some of famous sites in Japan
• Learn about Japanese poet Kenji Miyazawa
**JAPANESE II B**

Grades: 9, 10, 11, and 12

Credits: 0.50

This course is a continuation of Japanese II A. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics: house, shopping, entertainment, spare time, and travel. The student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Throughout the course, the student will explore Japanese culture, people, lifestyle, geographical locations, and histories.

**Units**

**Unit 1: House**

Students will learn to:

- Talk about their homes (rooms and furnishings)
- Talk about activities that happened in the past
- Learn about homes in Japan
- Continue to develop conversational skills in Japanese

**Unit 2: Shopping**

Students will:

- Learn to talk about shopping
- Learn to shop at Japanese stores
- Compare items in Japanese
- Talk about fashions
- Talk about their preferences
- Learn to use the numbers beyond 100 in conversational Japanese and especially when dealing with shopping
- Practice talking about activities that happened in the past
Unit 3: Entertainment

Students will:

- Talk about events they can go to for entertainment
- Talk about eating at a restaurant
- Learn to make negative responses in answering questions
- Learn to talk about things they love or like
- Talk about how frequently they do things
- Talk about when things happen (today, yesterday, tomorrow)

Unit 4: Spare Time

Students will:

- Talk about sports and other activities
- Learn expressions to talk about feelings they are experiencing
- Learn to talk about to whom things belong
- Review talking about activities in the past
- Talk about what hobbies or activities they like to do in their spare time

Unit 5: Travel

Students will:

- Learn to talk about taking a trip internationally
- Plan an international trip
- Learn to ask about where things are located in a city
- Express activities that are going to happen in the near future
- Talk about activities that happened in the past
- Talk about things you know and people or places you are familiar with
- Learn additional false cognates
- Review telling time
LATIN I A

Grades: 9, 10, 11, and 12

Credits: 0.50

The student will be building a Roman Information Highway—the Via Latina. The student will be the builder, or aedificator. The building blocks for this Roman road will include the following: 1) laying the foundation of bedrock comprised of Latin grammatical structures; 2) cementing the layers of rock together with the mortar—new Latin vocabulary; 3) fitting the top layer of cobblestones together for a smooth translation into English of Latin stories and sentences; 4) connecting your new road to other paths through words and customs derived from Latin and the Romans; and finally, 5) stopping at the rest stops along the road to learn more about Roman culture and daily life.

Unit 1 covers grammar basics, the nominative and accusative cases, first declension, first conjugation, the present active tense and the present tense of sum. Unit 2 covers the genitive, dative, and ablative cases, and the imperfect and future tenses of sum. Unit 3 covers second declension nouns, ablative of means, vocatives, imperatives, the perfect active system, and the perfect system of sum. Unit 4 covers second conjugation, infinitives, and first and second declension adjectives. Unit 4 also contains both parts of the Semester 1 Exam. Numerous cultural lessons are scattered throughout each unit.

Units

Unit 1
Lucia, Pausanias, and Magister Grammaticus will guide you through the entire course.

- Use derivatives to recognize Latin words
- Identify mottoes, abbreviations, and Roman quotations
- Use first declension nouns, present tense first conjugation verbs, and the present tense of the verb sum
- Translate sentences and short stories from English into Latin and from Latin into English
- Identify cultural aspects of ancient Rome, the Roman Forum, and Roman daily life

Unit 2
Lucia's presence indicates there is new vocabulary to learn.

- Translate and interpret written Latin
- Use the ablative, genitive, and dative cases; apply the imperfect and future tenses to first conjugation verbs; apply the imperfect and future tenses to sum
- Use Latin vocabulary and English derivatives within Latin and English sentences
- Recognize and use Latin abbreviations
- Identify aspects of Roman culture as revealed in mottoes, quotations, and gladiatorial games
Unit 3
Magister Grammaticus indicates that there are grammar rules to learn. You will usually want to print the information on these pages.
  • Translate and interpret written Latin
  • Use the vocative case, imperative mood, second declension masculine and neuter, and the perfect system of first conjugation verbs
  • Use Latin vocabulary and English derivatives within Latin and English sentences
  • Identify aspects of Roman culture as revealed in the art and architecture of ancient Rome

Unit 4
You will learn about Roman culture through its education system. You will also increase knowledge of your own language by understanding elements of Latin.
  • Translate and interpret written Latin
  • Use second conjugation verbs, adjectives, Roman numerals, and infinitives
  • Use Latin vocabulary and English derivatives within Latin and English sentences
  • Recognize and use the Roman numeral system
  • Identify aspects of Roman culture as revealed in the education of the children of ancient Rome
LATIN I B

Grades: 9, 10, 11, and 12

Credits: 0.50

The student will be building a Roman Information Highway—the Via Latina. The student will be the builder, or aedificator. The building blocks for this Roman road will include the following: 1) laying the foundation of bedrock comprised of Latin grammatical structures; 2) cementing the layers of rock together with the mortar—new Latin vocabulary; 3) fitting the top layer of cobblestones together for a smooth translation into English of Latin stories and sentences; 4) connecting your new road to other paths through words and customs derived from Latin and the Romans; and finally, 5) stopping at the rest stops along the road to learn more about Roman culture and daily life.

Unit 1 covers the present passive system, the ablative of agent, -er adjectives, questions, and adverbs. Unit 2 covers the perfect passive system and appositive. Unit 3 covers third conjugation and Latin idioms. Unit 4 covers fourth conjugation and personal pronouns. Unit 5 contains a comprehensive review of the entire course, as well as both parts of the Semester 2 Exam. Numerous cultural lessons are scattered throughout each unit.

Units

Unit 1

Pausanias indicates that you will learn about Roman culture.

- Translate and interpret written Latin
- Differentiate between the passive and active voice; apply the passive voice
- Apply the ablative of agent; use -er adjectives and adverbs
- Use Latin vocabulary and English derivatives
- Identify aspects of Roman culture as revealed in ancient Roman and Greek religion and mythology

Unit 2

You will learn about perspectives of the Roman culture through myths in the Roman calendar. You will also learn more about your own language through connectors, appositives, and idioms in Latin.

- Translate and interpret written Latin
- Apply the passive voice perfect system, connectors, appositives, and idioms
- Use Latin vocabulary and English derivatives
- Identify mottoes and abbreviations of the Romans
- Identify aspects of Roman culture as revealed in mythology and the Roman calendar
**Unit 3**

You will read famous epic the *Aeneid*, learn about third conjugation, and continue increasing your vocabulary.

- Translate and interpret written Latin
- Use third conjugation verbs and epic conventions
- Identify mottoes and Roman abbreviations
- Use Latin vocabulary and English derivatives
- Identify aspects of Roman culture as revealed in the life of Virgil, the story of the Trojan War, and the *Aeneid*

**Unit 4: Optional Semester 2 Exam Review**

In this optional unit, you will have the chance to review nouns, adjectives, verbs, culture, and Vergil before taking the Semester 2 Exam.

- Recall, recognize, and use Latin nouns, adjectives, and verbs
- Recall and identify major aspects of Roman culture
- Recall and identify key ideas and characters from Virgil's *Aeneid*

**Unit 5**

Tempus fugit! Time flies! The final unit of the course is here! You will continue studying Latin grammar as well as interview people for the Latin Lives! assessment.

- Translate and interpret written Latin
- Use fourth conjugation verbs and personal pronouns
- Use Latin vocabulary and English derivatives
- Identify aspects of Roman culture as revealed in Virgil's *Aeneid*
- Examine the etymology of English technical words and create a chart presenting their etymology and definitions
LATIN II A

Grades: 9, 10, 11, and 12

Credits: 0.50

The student will continue his journey to the time of the ancient Romans, but this time, the student will be a film student in the Roman movie, An Epic of Great Proportion. The student will be the director, and his script will include visits with some of the men who made Rome great. The student will learn about the Roman government and how Rome grew to rule most of the known world. This epic movie will also take the student back to the Trojan War where he will accompany the Greeks on a great adventure.

In Unit 1, the student will review first year grammar, the third declension, and relative pronouns. Then the student will also learn about a classical hero, common Latin roots and derivatives, epic conventions, mottoes, and abbreviation. Unit 2 continues with more information about the third declension and also Sum and Possum. The student will learn about the stories of Cyclops, Circe, and the Sirens. Unit 3 builds on what was learned in Unit 2. The student will continue with more third declension work along with further readings from The Odyssey and more on derivatives. The study of The Odyssey comes to an end with "Ulixes ad Ithacam." In Unit 4, the student will study pronouns and the fourth and fifth declensions and begin his instruction on Roman history, learning about Romulus and Remus, and the Kings of Rome. The student will also study the ablative absolute and future participles.

Units

Unit 1: Act I: Monsters, Inc.
Now, ab ovo usque ad mala ... from soup to nuts ... you will begin your study of the individual units.

In this unit, you will review first year grammar, the third declension, and relative pronouns. You will also learn about a classical hero, common Latin roots and derivatives, epic Conventions, mottoes, and abbreviation.

Unit 2: Call of the Wild
This unit continues with more information about the third declension and also Sum and Possum. You will learn about The Odyssey along with derivatives of Latin words.

Unit 3: The Castaway
Unit 3 builds on what was learned in the previous unit. You will continue with more third declension work, further readings from The Odyssey, and more on derivatives. The study of The Odyssey comes to an end with "Ad Ithacam."

Unit 4: The Twins
You will study pronouns and the fourth and fifth declensions. You will begin your instruction on Roman history, learning about the history of the monarchy and geography. Finally, you will continue your work on derivatives.
**LATIN II B**

Grades: 9, 10, 11, and 12

Credits: 0.50

The student will continue his journey to the time of the ancient Romans, but this time, the student will be a film student in the Roman movie, An Epic of Great Proportion. The student will be the director, and the script will include visits with some of the men who made Rome great. The student will learn about the Roman government and how Rome grew to rule most of the known world. This epic movie will also take him back to the Trojan War where the student will accompany the Greeks on a great adventure.

In Unit 1, the student will learn about participles and ablative absolutes. Then the student will continue his discussion of Roman history focusing on the beginnings of the Republic. The student will also review quotes and continue working on derivatives.

Unit 2 has a considerable amount of culture and history. Much happened during the Republic! Caesar; the Roman army; famous battles, mottoes, and abbreviations pertinent to the times; Cincinnatus; and Regulus are covered.

Unit 3 contains the study of the empire. The student will look at various emperors and the factors that caused the demise of the empire. This unit is an anomaly since it has no translation story in it. The reason is that it contains the hardest grammar concept in the course, which is indirect statement. A heavy dose of history in this unit gives the student a break from the heavy dose of grammar.

In Unit 4, the student will apply the mythological stories to his life. Unit 5 is one of review. There are no assignments. The student will find appendix links, rollovers, concentration games, practice sites, self-drill opportunities, and matching games to review the course material and to prepare for the final exams. The student may take as much time as necessary with these and use them as often as needed before taking the exams in Unit 4.

**Units**

**Unit 1: King of Kings**

In this unit, you will learn about participles and ablative absolutes. You continue your discussion of Roman history by focusing on the beginnings of the Republic. You will also review quotes and continue working on derivatives.

**Unit 2: Arms and the Man**

This unit has a considerable amount of culture and history. Much happened during the Republic! Caesar, the Roman army, famous battles, mottoes, and abbreviations pertinent to the times; Cincinnatus and Regulus are covered.
**Unit 3: Silent Movie**

Unit 3 contains the study of the Empire. You will look at various emperors and the factors that caused the demise of the empire. This unit is also an anomaly since it has no translation story in it. The reason is that it contains the hardest grammar concept in the course, which is indirect statement. The heavy dose of history in this unit gives you a break from the heavy dose of grammar.

**Unit 4: Metamorphoses**

This entire unit is one of review. There are no assessments. You will find appendix links, rollovers, concentration games, practice sites, self-drill opportunities, and matching games to review the course material and to prepare for the final exams. You may take as much time as necessary with these and use them as often as needed before taking the exams in Unit 4.

**Unit 5: Goldfinger**

You will apply the mythological stories to your own life.
LATIN III A

Grades: 9, 10, 11, and 12

Credits: 0.50

The design of Latin III is the Library of Celsus at Ephesus, Turkey. Since this is a survey course of Latin literature, each unit is a Caesar reading room, a Cicero reading room, etc. The student will check in at the reading room when he finds the "ask the librarian" on the oral assessments and discussions regarding content and style of each author. There is also a liber mensis, or book of the month, where the student will read additional works by the author or learn other information connected with the chosen author. The ex bibliotheca assignments will take the student away from the computer, and the interlibrary loan assignments will require the student to study something connected to the author (e.g., the region of Provence, France, in the Caesar unit) or to exchange thoughts with classmates in the discussion area.

The first half of the course is the prose of Caesar and Cicero. In Cicero, the student will look at the figures of speech. The student will also work on his clarity of writing and defense of his arguments. The student will expect this course to demonstrate why a classic is a classic, whether in a foreign language or in English, and to provide tools to appreciate the author’s talent and to understand why he is enjoying a particular novel.

Units

Unit 1: Checking In
You will review your syllabus and assignments and prepare to read Julius Gaius Caesar.

Unit 2: Julius Caesar Collection
No name is more associated with Rome than Julius Gaius Caesar and no quote more famous than his "Veni, vidi, vici." In this collection, you will examine his writing style in Latin and read some of his adventures in translation.

Unit 3: Marcus Tullius Cicero Collection
This is an extensive unit. It can be divided into two parts mentally. The lessons through lesson 27 are all preparatory work for the translations and grammar assessments that conclude the unit in lesson 45.
**LATIN III B**

Grades: 9, 10, 11, and 12

Credits: 0.50

The design of Latin III is the Library of Celsus at Ephesus, Turkey. Since this is a survey course of Latin literature, each unit is a Caesar reading room, a Cicero reading room, etc. The student will check in at the reading room when he finds the "ask the librarian" on the oral assessments and discussions regarding content and style of each author. There is also a liber mensis, or book of the month, where the student will read additional works by the author or learn other information connected with the chosen author. The ex bibliotheca assignments will take the student away from the computer, and the interlibrary loan assignments will require the student to study something connected to the author (e.g., the region of Provence, France, in the Caesar unit) or to exchange thoughts with classmates in the discussion area.

The second half of the course is the poetry of Ovid, Catullus, and Vergil. There is an emphasis on the craft of writing using figures of speech, scansion, and SWIMTAG. The student will also work on his clarity of writing and defense of arguments. This course will demonstrate to the student why a classic is a classic, whether in a foreign language or in English, and to provide tools to appreciate the author's talent and to understand why he is enjoying a particular novel.

**Units**

**Unit 1: Checking In**
You will review your syllabus and assignments and prepare to read Vergil and his epic poem the *Aeneid*.

**Unit 2: Poetae Collection**
Welcome to the world of poetry! You will again look at the beauty of Latin through the versatility of meter, stylistic devices and purpose, but this time, you will do so in poetry, not prose.

**Unit 3: Tantae molis erat Romanam condere gentem**
Units 2 and 3 are Vergil. Unit 2 is the first 33 lines of the *Aeneid*, the introduction to the work. Unit 3 is selected readings from Book 1 of the *Aeneid*.

**Unit 4: O tergue quaterque beati!**
Unit 4 is selected readings from Book 1 of the *Aeneid*.
SIGN LANGUAGE I A

Grades: 9, 10, 11, and 12

Credits: 0.50

Students are introduced to the fundamental concepts of American Sign Language. Students explore vocabulary, grammar, and conversational skills using basic signing and fingerspelling techniques, and are exposed to activities and exercises that help them understand the culture of deaf and hard-of-hearing people.

Units

Intro
Your student will be introduced to American Sign Language, or ASL. He will study the history of ASL and learn how it became the standard language for deaf and hard of hearing people in North America. He will also learn about some of the accepted rules of etiquette in Deaf culture. This introductory unit also teaches your student how to sign the letters of the alphabet and the mechanics of fingerspelling.

Numbers
This unit introduces the signing of numbers. Your student will learn how to sign numbers 1–100, as well as the signs for dollars and cents. A variety of fun activities give your student a chance to practice using ASL to discuss counting and using money.

Time
Your student will study various aspects of time. Not only will he learn how to communicate time using ASL, he will also learn the signs for the 7 days of the week and the 12 months of the year. The signs for various holidays as well as the four seasons are also taught in this unit.

Nouns
Your student will learn the signs for some commonly used nouns and pronouns. She will also be introduced to the ASL concepts of Indexing, Agency, and Nonmanual Markers. Combining these new concepts and the signs your student has learned will expand her growing library of American Sign Language knowledge.

Descriptions
This unit will teach your student how to sign various descriptions using American Sign Language. He will learn how to sign comparative adjectives and show comparison between two or more nouns or pronouns. Also, he will learn the signs for descriptive words that express size, shape, possession, color, and location. In addition, he will combine some previously taught signs for numbers, time, and nouns, with descriptive signs taught in this unit.
SIGN LANGUAGE II A

Grades: 9, 10, 11, and 12

Credits: 0.50

This course follows Sign Language I A. The goal of Sign Language I B is for the student to become a confident signer by mastering American Sign Language grammar and building vocabulary. Lessons incorporate the various important components of signs including handshape, position, movement, palm orientation, and non-manual markers. The student’s vocabulary is strengthened by studying special categories such as lexicalized signs, classifiers, and topic-related signs. The student will learn to translate from Standard English into American Sign Language gloss. Videos and interactive websites provide abundant practice. A unit on Deaf Culture and Community provides a good perspective and context for practicing American Sign Language.

Units

Signing and Fingerspelling
You will continue to build on the fundamental concepts of American Sign Language. You will increase your vocabulary, grammar, and conversational skills using signing and fingerspelling techniques.

Language in Practice
You will engage in American Sign Language conversations that involve giving, receiving, providing, and retaining information. To assist in developing your skills, you will learn about and use classifiers, space, eye gaze, palm orientation, and body shift.

Deaf vs. Hearing Culture
You will demonstrate an understanding of the relationship between the practice and perspective of Deaf Culture and its subcultures.

Looking Beyond the Sign
You will reinforce and strengthen your knowledge of various American Sign Language features including mouth morphemes, non-manual markers, gestures, and negation. You will learn the difference between an actual sign and a gesture, as well as study the evolution of American Sign Language.

More American Sign Language Grammar
You will come to understand different American Sign Language statement and question grammatical structures including yes or no vs. WH- questions, declarative sentences, negative declarative sentences, neutral declarative sentences, conditional sentences, rhetorical questions, topicalized WH- questions, and commands.
SPANISH I A

Grades: 9, 10, 11, and 12

Credits: 0.50

Students cover basic vocabulary, grammar, spelling, and punctuation to build a solid foundation for further study. Assignments include engaging in simple conversation, writing paragraphs, and listening to Spanish dialogue. Students also study the history and culture of Spanish-speaking peoples.

Units

Bienvenidos
You will learn vocabulary related to greeting and saying goodbye, numbers, time, parts of the body, classroom objects, the date, the calendar, the weather, the seasons, and how to ask for help. You will also learn about several grammar topics: the lexical use of estar, ser, and hacer, plural commands, nouns, and singular definite articles. Finally, in terms of culture, you will examine appropriate behavior when greeting someone in the Spanish-speaking world, as well as the reversed seasons in the Northern and Southern hemispheres. Be sure to keep a notebook on hand as you work through the unit so that you can take notes and answer activity questions as you go.

Lo que nos gusta
You will learn vocabulary related to activities that you and others like and don't like to do. You will also examine three grammar concepts: infinitives, making affirmative and negative statements, and expressing agreement or disagreement. In terms of culture, you will explore the similarities and differences between the popular activities of the Spanish-speaking world and the United States, as well as notable aspects of Spain, Argentina, and Mexico, including their popular destinations, activities, and social life. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

Como somos
You will learn about personality traits and how to describe what people are like. You will also examine three grammar concepts: adjectives, definite and indefinite articles, and word order: the placement of adjectives. In terms of culture, you will compare cultural perspectives on friendship, explore the geographical and cultural characteristics of Cuba, and examine popular games and famous works of art and literature from the Spanish-speaking world. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

Mis clases
You will learn vocabulary related to school schedules, subjects you study in school, and school supplies. You will also learn about several grammar topics: subject pronouns and how to use -ar verbs in the present tense. Finally, when we talk about culture, you will examine how schools in the Spanish-speaking world compare with schools in the United States in terms of daily routines, classes, buildings, and graduation ceremonies. Be sure to keep a notebook on hand as you work through the unit so that you can take notes and answer activity questions as you go.
A estudiar
You will learn vocabulary related to communication, computer-related activities, and Internet and digital products. You will also examine two grammar concepts: how to use the present tense of pedir and servir and how to use the verbs saber and conocer. In terms of culture, you will explore the technological and occupational characteristics of several Spanish-speaking regions of the United States, including the technology institutes that characterize Silicon Valley, California, and the aerospace centers found in Houston, Texas, and Cape Canaveral, Florida. You will also examine how to prepare for a technological career, including the role of Spanish-speakers and outreach programs such as The Hispanic Foundation of Silicon Valley. Lastly, you will examine the lives and works of Alfredo Quiñones-Hinojosa, a physician, author, and researcher, Ellen Ochoa and José Moreno Hernández, notable space engineers, and Luis Walter Álvarez, an experimental physicist, inventor, professor, and winner of the Nobel Prize in Physics. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

Mis comidas
You will learn vocabulary related to foods and beverages for breakfast and lunch, as well as adverbs of frequency and expressions to show surprise. You will also examine two grammar concepts: the present tense forms of -er and -ir verbs and how to indicate preferences for what you like and don’t like using me gustan and me encantan. Finally, in terms of culture, you will explore the concept of meals in the Spanish-speaking world, including cultural practices and traditions related to meal schedules and table manners, as well as the cultural significance of staple foods such as rice and chiles. You will also examine the lives and works of several Nobel Prize winners throughout the Spanish-speaking world and analyze the ability of food to inspire artistic creation. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

Comida y salud
You will learn vocabulary related to foods and beverages for dinner and dessert, as well as adjectives to describe food and expressions to discuss health and indicate preference, agreement, disagreement, and quantity. You will also examine two grammar concepts: the plural forms of adjectives and the use of the verb ser. Finally, in terms of culture, you will express and compare cultural opinions regarding diet and health in the Spanish-speaking world with those in the United States and examine the traditional foods and exercise routines of various Spanish-speaking countries. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

Mi tiempo libre
In this unit, you will learn vocabulary related to leisure activities and social locations in a community. You will also examine two grammar concepts: the use of the verb ir and interrogative words used to ask questions about where and with whom someone is going. Finally, in terms of culture, you will explore the concept of leisure activities in the Spanish-speaking world, including popular activities and places to go, as well as how these activities compare to those in the United States. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.
**Vamos a jugar**

You will learn vocabulary related to sports and other after-school activities, as well as expressions used for extending, accepting, and declining invitations and expressions to tell when something happens. You will examine two grammar concepts: the use of the grammatical construction ir + a + infinitive and the verb jugar. Finally, in terms of culture, you will explore the role of sports in the Spanish-speaking word, including traditional games, famous athletes, and the significance of fan clubs. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

**Semester Test**

You will review vocabulary related to greetings, activities, words used to describe people, school and classroom items, food, places for leisure activities, and playing sports. You will review grammar concepts related to asking for help, infinitives, adjectives, subject pronouns, plurals of nouns and articles, regular –ar, –er, and –ir verb conjugations, and ir + a + infinitive phrases. Finally, in terms of culture, you will review characteristics of the Spanish language, popular activities, Pan American games, the diversity of meal schedules, baseball in the Caribbean, and other leisure activities throughout the Spanish-speaking world. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.
SPANISH I B

Grades: 9, 10, 11, and 12

Credits: 0.50

Students cover basic vocabulary, grammar, spelling, and punctuation to build a solid foundation for further study. Assignments include engaging in simple conversation, writing paragraphs, and listening to Spanish dialogue. Students also study the history and culture of Spanish-speaking peoples.

Units

Una Fiesta de Cumpleanos
You will learn vocabulary related to family members, pets, celebrations, and party decorations. You will also learn about the verb tener and possessive adjectives. In terms of culture, you will learn about family celebrations, and one special celebration in the Spanish-speaking world, the quinceañera. You will also learn about the culture, tradition, and places of interest in Perú. Then you will learn about Peruvian painter and writer, Teodoro Núñez Ureta. Be sure to keep a notebook on hand as you work through the unit so that you can take notes and answer activity questions as you go.

Vamos al restaurante
You will learn vocabulary related to describing people and things. You will also learn words and expressions related to eating out in a restaurant, and food and table settings. You will also learn how to express basic needs. You will also learn about the verbs venir, ser, and estar and some of their uses in context. In terms of culture, you will learn about dining out in Asunción, Paraguay, and traditional foods of Paraguay. You will also examine Paraguay's second official language, Guaraní, and discover Ñacunday National Park. The life and work of artist Rosa Brítez will give you a look into the Guaraní language as well. Be sure to keep a notebook on hand as you work through the unit so that you can take notes and answer activity questions as you go.

Me gusta mi dormitorio
You will learn vocabulary related to bedroom items, electronic equipment, colors, and descriptions. You will also learn about several grammar topics: comparing and contrasting, using the superlative and some stem-changing verbs in Spanish. You will learn about some cultural characteristics of Bolivia, such as traditional musical styles, and popular attractions. You will also examine the similarities and differences between bedrooms in Bolivia and the U.S. Be sure to keep a notebook on hand as you work through the unit so you can take notes and answer activity questions as you go.
**En nuestra casa**

You will learn vocabulary related to houses, apartments, rooms, and household chores. You will also examine two grammar concepts: the use of affirmative tú commands and how to use the present progressive tense. In terms of culture, you will explore the cultural and historical characteristics of Panamá, including its demographics, cuisine, popular attractions, housing, and traditional art. You will also examine the life and work of Spanish historian Gonzalo Fernández de Oviedo y Valdés, including his role in the Spanish colonization of the Caribbean. Lastly, you will compare and contrast various types of housing in Panamá, including traditional mud houses in the countryside and modern apartments in the downtown area, as well as other traditional homes such as Ngãbes and quinchas. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

**En la tienda**

You will learn vocabulary related to shopping, clothing, prices, and numbers. You will also examine two grammar concepts: how to use the stem-changing verbs pensar, querer, and preferir, and how to use demonstrative adjectives in the Spanish language. In terms of culture, you will explore the cultural and historical characteristics of El Salvador and Honduras, including their demographics, geography, history, clothing, fashion styles, and places to shop. You will also examine Mayan culture in Central America, including Mayan numerals and the Site of Copán in Honduras. Lastly, you will learn about the life and work of Enrique Salaverría, a famous Salvadorian sculptor. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

**Comprar un regalo**

You will learn vocabulary related to stores, online shopping, gifts, clothing accessories, and expressions used to describe past events. You will also examine two grammar concepts: how to use the preterit of verbs that end in -ar, -car, and –gar, and how to use direct object pronouns in the Spanish language. In terms of culture, you will explore the cultural and historical characteristics of Argentina, including its demographics, popular activities, art, major cities, and cuisine. You will also examine the life and musical work of Ástor Piazzolla, a famous tango composer, as well as the lives and literary works of Horacio Quiroga, a short story writer, and Alfonso Sorno, a celebrated poet. Lastly, you will examine the shopping and eating habits of Argentinians, including what they buy and how their cuisine reflects Italian influences. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

**Mis vacaciones**

You will learn vocabulary related to vacation destinations and activities, modes of transportation, attractions, parks, animals, and expressions to talk about a trip or vacation. You will also examine two grammar concepts: how to use the preterite tense of -er and -ir verbs, including the verb ir, and how to use the personal a in the Spanish language. In terms of culture, you will explore the cultural and historical characteristics of the Dominican Republic, including its demographics, geography, popular activities, cuisine, wildlife, and modes of transportation. You will also examine the Taíno culture and the ways it has influenced life in the Dominican Republic. Lastly, you will examine the lives and works of Eugenio De Jesús Marcano Fonseca, a celebrated Dominican biologist, and Salomé Ureña de Henríquez, a Dominican poet and pedagogist. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.
Ayudar a los demas

You will learn vocabulary related to recycling, places in the community, and volunteer work. You will also examine three grammar concepts: how to use the present tense of decir, the use of indirect object pronouns in the Spanish language, and the preterite tense of hacer and dar. In terms of culture, you will explore the cultural and historical characteristics of México, including its demographics, geography, popular activities, cultural traditions, community programs, and geology. You will also examine the important work performed by various disaster relief and volunteer recycling programs in México. Lastly, you will examine the lives and works of activist and writer Elena Poniatowska and impressionist painter Joaquín Clausell Throup. Be sure to keep a notebook on hand as you work through the unit so that you can make notes and answer activity questions as you go.

La television y las peliculas

You will learn vocabulary related to television programs, movies, and words and expressions used to give opinions. You will also examine two grammar concepts: how to use acabar de + infinitive phrases and how to use the verb gustar and similar verbs. In terms of culture, you will explore cultural and historical characteristics of Spain, including its films, television programs, entertainment awards and honors, and notable Spanish filmmakers, actors, directors, and writers. Lastly, you will examine the lives and works of Emilia Pardo Bazán, a Galician novelist, journalist, essayist, critic, and activist, and Fernando Fernán-Gómez, a Spanish writer, poet, actor, screenwriter, and film and theater director. Be sure to keep a notebook on hand as you work through the unit so you can make notes and answer activity questions as you go.

Computadoras y tecnologia

You will learn vocabulary related to communication, computer related activities, and Internet and digital products. You will also examine two grammar concepts: how to use the present tense of pedir and servir and how to use the verbs saber and conocer. In terms of culture, you will explore the technological and occupational characteristics of several Spanish-speaking regions of the United States, including the technology institutes that characterize Silicon Valley, California and the aerospace centers found in Houston, Texas and Cape Canaveral, Florida. You will also examine how to prepare for a technological career, including the role of Spanish speakers and outreach programs like The Hispanic Foundation of Silicon Valley. Lastly, you will examine the lives and works of Alfredo Quiñones-Hinojosa, a physician, author, and researcher, Ellen Ochoa and José Moreno Hernández, notable space engineers, and Luis Walter Álvarez, an experimental physicist, inventor, professor, and winner of the Nobel Prize in Physics. Be sure to keep a notebook on hand as you work through the unit so you can make notes and answer activity questions as you go.

Semester Test
SPANISH II A

Grades: 9, 10, 11, and 12

Credits: 0.50

As they engage in more advanced conversations, write paragraphs and stories, and translate to and from Spanish, students improve their vocabulary and grammar. Intense listening comprehension exercises aid in understanding more complex thoughts and subjects. Be sure to keep a notebook on hand as you work through the units so that you can take notes and answer activity questions as you go.

Units

Como soy
You will learn vocabulary you can use to describe yourself and others in terms of your personalities and the kinds of things you like to do. You will also learn about the uses of the verb ser. Finally, you will learn about the culture and history of Nicaragua, including its traditions, celebrations, and general demographics, as well as the life and work of Nicaraguan poet Rubén Darío and his literary influence throughout the Spanish-speaking world.

Como estudias
You will learn vocabulary related to traditional school activities, objects, supplies, and rules. You will also examine three grammar concepts: how to use stem-changing verbs and how to make affirmative and negative statements. Finally, in terms of culture, you will explore the cultural and historical characteristics of the U.S.-Mexican border region, including the demographics, geography, popular activities, and bilingualism of the Southern regions of California, Texas, Arizona, and New Mexico.

You will also examine the life achievements of famous Hispanic baseball and basketball players in Texas and other states. Lastly, you will analyze the importance of exhibiting good manners throughout the Spanish-speaking world.

Despues de clases
You will learn vocabulary related to extracurricular activities, making comparisons, and talking about how long people have been doing things. You will also learn about several grammar topics: saber vs. conocer, hace+expressions of time, and tan...como. Finally, in terms of culture, you will examine the demographics, geography, environment, and popular cultural activities of Central American countries.

Para prepararse
You will learn vocabulary related to daily events and getting ready for an event. You will also learn to use reflexive verbs, possessive adjectives, and the verbs ser and estar. In terms of culture, you will learn about Cuba, its geography, environment, and places of interest. Then you will learn about writer Jose Martí and his impact on Latin American literature.
De compras
You will learn vocabulary related to shopping and clothing. You will learn about the preterit tense of regular verbs, and you will learn how to use demonstratives as adjectives and adjectives as nouns. In terms of culture, you will learn more about the Caribbean as we focus on Puerto Rico and the Dominican Republic. You will learn about popular places to visit as well as different events in each place.

Ayer hice...
You will learn vocabulary related to running errands around town as well as different places in town, and the items found there. You will also learn about several grammar topics: the use of direct object pronouns in Spanish, and the preterit tense of some irregular verbs. Finally, in terms of culture, you will learn about Colombia, including tourist attractions in its major cities as well as look at several important Colombians.

Como llegamos
You will learn vocabulary related to driving and the giving or receiving of driving advice and directions. You will also examine three grammar concepts: the direct object pronouns me, te, and nos, the use of irregular, affirmative tú commands, and how to use the present progressive tense for irregular verb forms. Finally, in terms of culture, you will explore the cultural and historical characteristics of Venezuela, including its demographics, environment, popular activities, traditions, transportation, and geography. You will also examine cultural activities and locations found in cities such as Caracas, Santa Ana de Coro, Maracaibo City, and Sinamaica Lagoon, including public squares, Avila Mountain, and Canaima National Park. Lastly, you will examine the life and work of famous Venezuelan public figures, including Jacinto Convit García, Andrés Bello, and Milka Duno.

Ninos y ninas de ayer
You will learn vocabulary related to childhood toys and things you used to do. You will also examine two grammar concepts: how to use the imperfect tense of regular and irregular verbs and how to use indirect object pronouns. Finally, in terms of culture, you will explore the cultural and historical characteristics of Chile, including its demographics, environment, popular activities, traditions, celebrations, main cities, indigenous people, and geography. You will also compare and contrast school breaks in Chile and other Spanish-Speaking countries with those of the United States. Lastly, you will examine the lives and accomplishments of notable Chilean women and other significant public figures, including Antonia Tarragó e Isabel Lebrun, Eloísa Díaz Insunza, Matilde Throup, Claudio Bravo Camus, and José Donoso.

Los dias de fiesta
You will learn vocabulary related to common etiquette and holiday celebrations. You will also examine two grammar concepts: how to use the preterite tense and imperfect tense in order to describe a situation and how to communicate reciprocal actions. Finally, in terms of culture, you will explore the cultural and historical characteristics of Spain and Equatorial Guinea, including their demographics, environments, popular activities, traditions, celebrations, main cities, and geography. You will also compare and contrast common practices for wedding celebrations in small Spanish villages to those of the United States. Lastly, you will examine the life and work of Juan Tomaso Ávila Laurel, an Annobonese writer from Equatorial Guinea.

Semester Review
SPANISH II B

Grades: 9, 10, 11, and 12

Credits: 0.50

As they engage in more advanced conversations, write paragraphs and stories, and translate to and from Spanish, students improve their vocabulary and grammar. Intense listening comprehension exercises aid in understanding more complex thoughts and subjects. Be sure to keep a notebook on hand as you work through the units so that you can take notes and answer activity questions as you go.

Units

Las noticias
You will learn vocabulary related to natural disasters, including extreme weather and fire, as well as vocabulary used in news reports about these events and the heroic men and women involved in emergency rescue operations. In the grammar sections, you will learn to use the preterite and imperfect verb tenses to express actions that occurred in the past, with special emphasis on the verbs oír, leer, creer, and destruir. In terms of culture, you will learn about the country of Uruguay, its geography and weather, and some of the natural disasters it has faced. You will also learn about Uruguay’s first national hero, Atilio Pelossi.

Los accidentes
You will learn vocabulary related to medical treatments, accidents, and body parts. You will also examine two grammar concepts: how to use the irregular preterite tense of venir, poner, and traer, and how to use the imperfect progressive and preterite tenses. In terms of culture, you will explore the cultural and historical characteristics of Ecuador, including its demographics, geography, and environment, as well as the transportation system of downtown Quito. You will also examine the cultural traditions and lifestyles of the indigenous peoples of Ecuador. Lastly, you will examine the life and work of Matilde Hidalgo, an Ecuadorian physician and activist, and Eugenia María del Pino Veintimilla, a prominent Ecuadorian biologist.

Los deportes en la television
You will learn vocabulary related to sporting events, contests, and emotions. You will also examine two grammar concepts: how to use the preterit of -ir stem-changing verbs and how to use other reflexive verbs. In terms of culture, you will explore the cultural and historical characteristics of Colombia and Venezuela, including its demographics, geography, traditions, popular activities and locations, and history of the Colombian-Venezuelan border. Lastly, you will examine the cultural traditions and lifestyles of the Wayuu people, the indigenous cultures of Venezuela and Colombia.

Mis peliculas favoritas
You will learn vocabulary related to movies and making movies. You will also examine two grammar concepts: how to use verbs that use indirect object pronouns and how to use the present perfect tense. In terms of culture, you will explore the cultural and historical characteristics of Argentina, primarily the demographics, geography, wildlife, and popular activities of the La Pampa province. You will also examine culturally significant Argentinian and Uruguayan films and festivals. Lastly, you will compare and contrast Argentinian estancias with ranches, plantations, and other farming areas in the United States.
Me encanta la paella
You will learn vocabulary related to foods and other items found in kitchens, recipes, and food preparation. You will also examine two grammar concepts: how to use negative tú commands and how to use the impersonal se. In terms of culture, you will explore the cultural and historical characteristics of Northern Spain, including its demographics, geography, and popular activities. You will also examine popular meals and restaurants in various Spanish and Mediterranean coastal cities, including those which blend traditional and modern foods. Lastly, you will learn about the life and work of Diego Velázquez, a Spanish still-life and portrait painter.

Vamos a comer al aire libre
You will learn vocabulary related to camping, eating outdoors, and food in general. You will also examine two grammar concepts: the uses of por and how to use formal usted and ustedes commands. In terms of culture, you will explore the cultural and historical characteristics of southern México, including its demographics, geography, tourist destinations, indigenous cultures, and traditional foods. You will also examine outdoor activities to do in southern México, including visiting the Limontitla Botanical Garden, Lacandona Rain Forest, Sumidero Canyon, and Palenque National Park.

Quiero viajar en avion
You will learn vocabulary related to travel plans and airports. You will also examine two grammar concepts: how to use the present subjunctive tense and how to use irregular verbs in the subjunctive tense. In terms of culture, you will explore the cultural and historical characteristics of the Caribbean region, including its demographics, geography, and climate. You will also examine popular travel and vacation activities in the Caribbean, including Puerto Rico, Cuba, the Yucatán Peninsula, and other minor Caribbean islands. Lastly, you will examine the life and work of Francisco Oller, an impressionist painter of landscapes, and the ancient Mayan Books of Chilam Balam.

Buen Viaje
You will learn vocabulary related to sites of interest in a city, staying in a hotel, and tourist activities and behaviors. You will also examine two grammar concepts: how to use the present subjunctive tense with impersonal expressions and how to use the present subjunctive of stem-changing verbs. In terms of culture, you will explore the cultural and historical characteristics of Costa Rica, including its demographics, geography, major cities, wildlife, and tourist destinations and activities. You will also examine geographical and cultural characteristics of various national parks, reserves, and historical sites of Costa Rica, including the Tortuguero National Park and the Monteverde Cloud Forest. Lastly, you will examine common Costa Rican Spanish expressions and regional dialects.

Cual sera mi profesion
You will learn vocabulary related to professions and talking about the future. You will also examine two grammar concepts: the future tense and how to use it with both regular and irregular verbs. In terms of culture, you will explore the historical and geographical characteristics of areas of volcanic activity throughout the Spanish-speaking world, including prominent volcanic sites in México, Ecuador, Chile, and Colombia. You will also examine the significance and effects of El Cinturón de Fuego (the Pacific Ring of Fire) on Spanish-speaking countries and become familiar with the important work of a volcanologist. Lastly, you will examine the life and work of Gerardo "Dr. Atl" Murillo, a painter and writer with a passion for volcanoes.
Un Future Mejor

You will learn vocabulary related to the planet Earth, energy, and the environment. You will also examine two grammar concepts: how to use the future tense for other irregular verbs and how to use the present subjunctive tense with expressions of doubt. In terms of culture, you will explore the cultural and historical characteristics of Belize, the Philippines, and Western Sahara, including their demographics, geography, environment, and language trends. Lastly, you will examine the Ladino or Judeo-Spanish language that is spoken by Sephardic communities around the world.

Semester Review
SPANISH III A

Grades: 9, 10, 11, and 12

Credits: 0.50

Spanish III A is a continuation of the first two years of Spanish instruction. The student will continue to sharpen his listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics: feelings, transportation, work, countries, and the future. The student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, past-tense verbs, articles, and adjectives. Elements of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

Units

Los Sentimientos
Students will review the following:
- Describing people and things
- Talking about things that happened in the past
- Talking about things that they and others do
- Using appropriate expressions to express everyday things they would like to say
- Expressing things they do not do with the correct negative expressions
- Talking about your daily routine

Students will also be introduced to the following:
- Reviewing and discussing cultural practices of the Hispanic people
- Reviewing historical details about Spain
- How to say that they do something with other people

La Transportacion
Students will review the following:
- Describing things and people
- Talking about things that happened in the past

Students will be introduced to the following:
- Talking about how frequently or how they do things
- Talking about where things are
- Making commands
- Talking about transportation and getting from one place to another and how
- New cultural and historical issues in the Spanish-speaking world
A Trabajar
Students will review the following:
- Telling others what to do and giving advice
- Making negative statements and negative advice

Students will be introduced to the following new concepts:
- Asking questions
- Talking about the past, what they used to do
- Expressing what things they may be obligated to do
- Talking about various professions that people have and their responsibilities in these professions

Los Países Y Las Nacionalidades
Students will review the following:
- Talking about and describing actions that happened in the past
- Talking about what they or someone are doing right now
- Talking about things, people and places they know

They will be introduced to the following:
- New vocabulary having to do with international affairs

El Futuro
Students will review the following:
- Talking about things happening in the present
- Talking about things that happened in the past

They will be introduced to the following:
- Learning to write a letter in Spanish
- Talking about things that will happen in the future
- Talking about things that might happen (if other conditions are met)
- Talking about the environment

Examen
This unit contains the Semester Exam.
SPANISH III B

Grades: 9, 10, 11, and 12

Credits: 0.50

Spanish III B is a continuation of the first two and a half years of Spanish instruction. The student will continue to sharpen his listening, speaking, reading, and writing skills through a variety of activities. Throughout the five topics covered in this course, the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, past-tense verbs, future-tense verbs, conditional-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

Units

La Salud
Students will review:

- Talking about themselves, how they feel, how others feel
- Asking questions about how others feel
- Expressing things that happened in the past
- Talking about the future

New concepts:

- Talking about health professions
- Talking about things that can be wrong or hurting
- Talking about your daily routine and things they do with or to other people

La Casa
Los estudiantes van a estudiar lo siguiente:

- They will review talking about how they do things or how frequently or how well they do them.
- They will review talking about things that would happen (if other things were to happen).
- They will review telling people what to do.

New concepts:

- Expressing what they would like
- Giving directions
- Additional ways to talk about their homes
- Cultural issues about Argentina
Las Medidas
This unit covers the following:

- A review of talking about past, present, and future activities
- A review of numbers
- A review of comparing people, things, and activities
- Using a variety of expressions to express things in Spanish

Las Profesiones
Students will:

- Talk about professions and jobs.
- Talk about getting an education.
- Reviewing the use of pronouns to talk about things and people.
- Reviewing weather and units of time.

Mi Historia Personal
Students will review:

- Vocabulary and expressions to talk about themselves
- Expressions of time and talking about the past
- More with the passive voice
- Expressing quantities
- A review of talking about the present, past, and future

Examen
This unit contains the Semester Exam.
**SPANISH IV A**

Grades: 9, 10, 11, and 12

Credits: 0.50

This fourth year of Spanish covers advanced grammar including present-tense verbs, past-tense verbs, future tense, conditional tense, subjunctive mood, articles, and adjectives. In the first semester, students focus on the Spanish-speaking world, including culture, people, geographical locations, and histories.

**Units**

**La Gente**

Students will review:

- Describing people and things
- Talking about what they like to do
- Talking about what their day is like
- Talking about the activities they like to do

Students will be introduced to:

- Spanish historical and cultural information
- Additional family members they might wish to talk about

**Los Logros**

Students will review:

- Telling people how to do things
- Talking about things they do or have done
- Talking about their accomplishments
- Reviewing the use of numbers in Spanish

Students will learn:

- To explain about things they have accomplished
- Talking about activities that involve uncertainty or doubt
- Cultural and historical issues
**Los Deseos**

Students will review:

- Talking about things they want others to do
- Talking about the environment
- Talking about things they should do to be responsible in the environment
- Talking about their homes and things they do in their homes

Students will be introduced to:

- Talking about what their desires are
- Talking about things they hope will happen

**Actividades**

Students will review:

- Talking about things they like to do in the outdoors
- Talking about things they want others to do
- Expressing that others want them to do certain things
- Talking about things related to the outdoors and to cities in general

Students will be introduced to:

- How to talk about what has happened by a certain time

**Celebraciones**

Students will review:

- How to talk about things that are happening
- How to talk about things that will happen
- How to talk about things that happened in the past
- How to talk about dates and days

Students will be introduced to:

- Días de fiesta in Spanish-speaking America
- How to talk about what will have happened by a certain time

**Examen**

This unit contains the Semester Exam.
SPANISH IV B

Grades: 9, 10, 11, and 12

Credits: 0.50

This fourth year of Spanish covers advanced grammar including present-tense verbs, past-tense verbs, future tense, conditional tense, subjunctive mood, articles, and adjectives. In the second semester students continue to focus on the Spanish-speaking world, including culture, people, geographical locations, and histories.

Units

Posibilidades
Students will:
- Review talking about the future and things that would happen (if other conditions were met)
- Learn patterns in words
- Analyze proverbs in Spanish
- Learn about Puerto Rico and its contributions, musically and artistically, to the Spanish-speaking world

El Pasado
Students are going to review:
- How to use adverbs to talk about how frequently or how well they do things
- Talking about your past and things that happened in the past

Students will be introduced to:
- Verbs in the past tense that take on a special meaning
- New proverbs in Spanish
- Additional suffix patterns that will help to expand their vocabulary in Spanish
- Additional food vocabulary

Las Artes
Students will:
- Learn to talk about what others have said
- Learn about the fine arts in the Spanish-speaking world
- Review the correct sequencing of tenses for expressing thoughts in the past, present and future
- Learn additional proverbs or sayings that are well known in the Spanish-speaking world and will help gain insight to the Hispanic thought process
- Learn about artists, both contemporary and historic, of great significance
- Learn to talk about other art forms and learn ways in which they relate to the Spanish-speaking world
Ahora
Students will:

- Learn vocabulary that will allow them to talk about electrical items that are very common in today's world
- Learn to talk about actions that happen that were not planned
- Review irregular verbs in Spanish in order to be able to use them in conversation
- Learn shortcuts in order to be able to use colloquial expressions instead of always using the noun
- Learn additional idioms and sayings in Spanish and learn to analyze them for understanding
- Sharpen listening skills

Se Acaba
Students will:

- Review talking about happenings in the past, present, and future
- Review "shortcuts" for talking about others using a variety of pronouns
- Review ways to talk about how you do things
- Learn of additional writers important to the Latin Americans, both contemporary and historical
- Learn of additional traditions that are important to Hispanics

Examen
This unit contains the semester exam.
**OTHER COURSES**

**INTRODUCTION TO ENTREPRENEURSHIP I**

Grades: 9, 10, 11, 12

Credits: 0.50

In this course you will learn the basics needed to plan and launch your own business. Do you have what it takes to start a new business? Do you have an idea for a business but need the tools to get started? This course will provide you with the core skills you need to become successful. In this course you will study the characteristics of successful entrepreneurs. You will also learn about self-employment and basic economic concepts related to small businesses, such as competition and production. This course will also walk you through the steps of setting up a business, including developing a business plan, a mission and a vision, attracting investors, and marketing your company.

**Units**

**Course Overview**

You will receive a basic overview of the course. You will learn how to navigate through the course, find and zip files, set up your Web browser, and complete coursework. You will also learn about using trustworthy sources, avoiding plagiarism, and making proper citations.

**The Role of the Entrepreneur**

You will receive an introduction to what it means to be an entrepreneur. You will learn about types of entrepreneurs and the role of entrepreneurs in society. This unit will also explain basic economic concepts related to entrepreneurship, including producers and consumers, strong and weak economies, and capitalism and competition.

**Entrepreneurship as a Career**

You will learn more about the life of an entrepreneur. This unit will explore some of the advantages and disadvantages of self-employment as well as detail the characteristics, skills, and education of successful entrepreneurs. This unit will also discuss reasons why a person becomes an entrepreneur and career paths that help develop entrepreneurial skills and characteristics.

**Economic Principles**

You will learn more about some basic economic concepts related to entrepreneurship. You will learn about profit and loss, profit motive, and competition. You will also learn about production, goods, scarcity, and the law of supply and demand.

**Production and Delivery**

You will learn how entrepreneurs produce and deliver goods and services to markets. You will explore some of the different industries and delivery methods. You will also learn about related economic concepts, including economic utility, economies of scale, market saturation, and product life cycle.
Small Business Basics
You will explore the stages and forms of small businesses. Related to this, you will learn about how to form departments and factors that contribute to success and failure. You will also become more familiar with the importance of business ethics.

Business Ideas and Opportunities
You will learn the role of entrepreneurs and small businesses in society and the global economy. Related to this, you will explore how business trends affect entrepreneurial ideas and opportunities. You will also learn about methods and resources that will help you generate business ideas and wisely select the best plan based on your goals, skills, personality, and resources.

Defining Your Business
You will learn about the importance and parts of a business plan. Related to this, you will how to craft a mission and vision statement. You will also learn how to determine the scope of a business, including the products and services that will be offered.

Business Organization
You will learn about various forms of business organization as well as accompanying legal and tax procedures. Related to this, you will learn about franchising, business licenses, and permits. You will also explore ways to organize and manage employees, records, purchasing, and inventory.

Marketing Basics
You will explore basic concepts related to marketing an entrepreneurial initiative or business, including market positioning, penetration, and research. You will also learn about establishing a corporate and brand image and the steps involved in developing a marketing message.

Promoting Your Company
You will learn about diverse methods for promoting an entrepreneurial initiative or business. Related to this, you will explore promotional methods, costs, and evaluation. You will also learn about advertising methods and goals as well as the parts of a marketing plan.
INTRODUCTION TO ENTREPRENEURSHIP II

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course you will continue to learn the skills and key concepts that you’ll need to plan and launch your own successful business. You will learn about establishing a personal vision and setting goals for your business. You will also learn about the lives of entrepreneurs and inventors. Additionally, you will gain a better understanding of the stages involved in entrepreneurship, including identifying opportunities, planning, developing strategies, and making sales. You will likewise learn financial concepts and skills involved in entrepreneurship, such as budgeting, financing, costs, pricing, accounting, bookkeeping, and financial reporting. Through this course, you will also learn the basics of working with others and managing employees.

Units

Course Overview
You will receive a basic overview of the course technology. You will learn how to navigate the course, find and zip files, set up your browser, and complete coursework. You will also learn about using trustworthy sources, avoiding plagiarism, and making proper citations.

Sales
You will learn the principles of selling, including the stages and steps involved in sales. You will learn to identify and take advantage of selling opportunities through various tools and strategies. You will also learn about meeting sales quotas, earning commissions, and network marketing.

Pricing
You will learn about setting the price of goods and services. You will learn how to calculate costs and take into account variable and fixed costs as well as break-even points and external pricing factors. You will also learn about elastic and inelastic demand, price fixing, and bait-and-switch advertising.

Personal Finance
You will learn about personal finance. You will learn how to develop a personal vision statement and establish financial goals. You will also become familiar with concepts and strategies related to budgeting, banking, and investing.

Credit, Funding and Risk
You will learn how to build good credit, obtain funding, and manage risk. To this end, you will learn about credit history and scores. You will also learn about loans and lines of credit. Additionally, you will become familiar with business and opportunity costs, cash flow, and insurance.
Accounting
You will learn the concepts and skills important to accounting. You will become familiar with financial health factors, such as revenue. You will also learn bookkeeping principles and become familiar with financial reporting and ratios.

Taxes and Laws
You will learn about taxes and laws that particularly affect small businesses and entrepreneurs. You will learn about preparing taxes and the government’s role in the economy. You will also explore legal practices that affect small businesses, such as contracts, torts, and intellectual property.

Culture, Globalization and Technology
You will focus on business culture and the impact of globalization and technology on entrepreneurship. You will explore global trade and the various benefits. Likewise you will learn about the uses of technology in the workplace and how to conduct business over the internet.

Workplace Skills
You will become familiar with attitudes and behaviors that ensure success in the workplace. You will also learn skills that translate into workplace success, such as proper communication, management, and leadership. Likewise, you will learn the skills necessary to obtain a job, including interviewing well and developing a strong resume. Finally, you will learn how to locate, hire, and orientate employees.
CRITICAL THINKING AND STUDY SKILLS

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will implement thinking strategies, learn test-taking strategies, time management and organization skills, build verbal competence, and sharpen his mathematics reasoning. Specifically, the student will learn strategies for acquiring, storing, and retrieving knowledge, and strategies for linking new information with prior knowledge.

Units

Starting Your Sojourn
You will begin creating a rapport with the instructor while discussing their future goals in education and thoughts of careers.

Begin Your Vocabulary Adventure
You will begin the vocabulary section. Giving good feedback is the important key for the teacher in this and other units.

In Flight “Air”ithmetic
Unit 3 begins the algebra and math portion of the course. It is important to give good feedback and be available for help when you need it.

Traveling Europe for Verbal Adventure
Unit 4 begins the verbal learning portion of the course. By learning more about Greek and Latin root words, you can only see improvement in the areas of analogies, sentence completion and critical reading skills.

Ambling Through Africa
Unit 5 begins the higher level math content. As this is a critical unit, it is recommended that you contact your teacher to go over missed questions in order to be successful and understand the question types.

Asian Adventures
Unit 6 contains the reading portion of the course. Here, you will need to think about the topics and current items used, and decipher content in different ways. Should you miss a main point, it is important for the teacher to help them either through lesson feedback, discussions, chats, or phone calls.

South American Adventures
Unit 7 covers Geometry and other miscellaneous math topics required for standardized testing success.

What’s New in North America?
Unit 8 contains the writing portion and the final exam.
LIFE MANAGEMENT SKILLS

Grades: 9, 10, 11, and 12

Credits: 0.50

This course provides an opportunity for the student to explore important decisions he may have to make as a teenager. The course provides important information pertaining to issues such as nutrition, substance abuse, coping with stress, and sexual abstinence. In this course, the student will also learn how to be a savvy consumer in a world of advertising and credit cards as well as review Earth-friendly practices.

Units

Construction Site
Unit 1 is an introduction to the course and includes four assessments. Caution: Life Skills Under Construction is the signpost and it will be used to construct and enhance self-esteem, build strong families and explore basic parenting responsibilities.

The Crosswalk
This unit includes an overview of nutrition, which addresses eating disorders, nutrient needs, dietary guidelines, food preferences, and alternatives to junk foods. Learning about nutrition will help you establish and maintain a healthier lifestyle.

Two-Way Street
After successfully completing this unit, you will know techniques for communicating effectively and for dealing with hostile, threatening, or dangerous situations. In addition, you will know methods for effectively expressing your feelings and opinions.

Warning: Dangerous Chemicals
You will learn various strategies to employ when making decisions related to health issues. Peer pressure skills will be practiced to help equip you with personal skills needed to help you refuse alcohol, tobacco, and other harmful substances.

Points of Interest
Unit 5 teaches you that coping skills are essential in a world that can be filled with constant stress and decision making. In this unit you'll discover some decision-making techniques, goal-setting activities, time management strategies, and stress management skills. This unit will aid you in facing the many "curves" they receive in life by equipping them with coping skills.
**Turn Right for Consumer Savvy**

Love to shop? Influenced by advertising? This section of Life Management Skills will help you make sound consumer decisions by evaluating consumer information, advertisements, services, and products. Consumer savvy is a must in an economy that encourages spending.

Plastic cards, interest rates, checkbooks, advertising fraud, consumer rights and other consumer issues will be addressed to help you make the right turn when deciding how to spend money.

**Mixed Messages**

It may often seem that peers, society, parents, school, media, and clergy are giving you many mixed messages about your body and sexuality. You explore some facts and factors that affect adolescent sexuality and the consequences of making misinformed turns.

**The Safe Way is the Best Way**

"It can't happen to me." This unit will provide you with facts about the dangers of believing that you are invincible. This section can be a "life saver" for you and your friends. The unit explores the HIV immune response, medications, and other relevant information, as well as a study of other sexually transmitted diseases (STDs). This unit will also target injury prevention and safety habits.

**The Passing Zone**

The last sign post will guide you in the completion tasks for this course. This unit will include instructions for CPR certification submission and the final exam review. Pat yourself on the back; you have followed the signposts to course completion!


**COLLEGE PREP WITH ACT**

Grades: 9, 10, 11, and 12

Credits: 0.50

This course will help the student navigate through the ACT's Online Test Preparation™ Web site, access two full ACT® practice tests, and learn the necessary skills in order to take the ACT test. This course also includes several lessons on other critical aspects of preparing for college, including developing a college resume, writing effective personal essays, and requesting letters of recommendation.

This course is intended to prepare the student to take the ACT test. As the student works through the course, he will focus on learning more about his strengths and weaknesses as well as learn test-taking strategies that are specific to the ACT test. That way, when the student takes the actual test, the scores will be a good representation of the student's abilities.

Finally, the student will submit a Personal Improvement Plan, which will reflect the areas for improvement that the student has identified throughout this course.
**COLLEGE PREP WITH SAT**

Grades: 9, 10, 11, and 12

Credits: 0.50

This course will help you navigate through the Official SAT Practice from the Khan Academy website, access SAT practice tests, and learn the necessary skills in order to be prepared to take the SAT test. This course also includes several lessons on other critical aspects of preparing for college, including developing a college resume, writing effective personal essays, and requesting letters of recommendation. As part of this course, you will create a College Planning Portfolio containing college planning and application elements.

This course is intended to prepare you for the SAT test. As you move through the course, you should focus on learning more about your strengths and weaknesses as well as specific test-taking strategies for the SAT test. When you take the actual test, your scores will be a good representation of your abilities.
**DRIVERS EDUCATION**

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will learn the fundamental skills for responsible driving. The emphasis of this course is placed upon the mechanics of driving, execution of driving operations, and rules of safe driving. The student will identify and recognize traffic laws, signs and other markings, and basic checks on a vehicle, and the student will learn the rules for sharing the roadway, responding to weather conditions, and other vehicle emergencies.

**Units**

**The Driving Task**

You will learn about the highway transportation system and the driving task. You need to develop good social, physical, and mental skills to become a low-risk driver. You will learn how the licensing process, driver education, and driving practice work together to produce better drivers.

**Being a Responsible Drive**

In this unit, you will learn about the IPDE process and how to use it while driving. You will also examine how changes in emotional, mental, and physical states affect driving. You will address different types of distractions and how to minimize them while driving. Finally, you will continue completing your driver’s log.

**Controlling Your Vehicle**

You will learn how to drive in various weather conditions and share the road with pedestrians and other types of vehicles. You will also examine different types of driving emergencies and how to respond in each. You will continue completing your driver’s log.

**Driving in Different Environments**

You will learn about the challenges and safety procedures for driving in cities and rural areas. You will also distinguish different types of highways and how to safely navigate them. You will submit their completed driving log portfolio for grading.

**Final Exam**

You will complete your final exam for Driver’s Education. You will be required to recall the foundations of driving that you have learned throughout this course.
**EARTH SPACE SCIENCE A (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

Why did early explorers risk their lives to reach the North Pole? Why does Earth look so beautiful when seen from space? What is really down at the bottom of the ocean? Discovering new things about Earth has been the dream of scientists and explorers for centuries. Today, it is your turn to continue that journey of discovery. Earth Space Science is a laboratory course focusing on the study of space and the geologic and atmospheric forces that shape the world. Through experimentation and investigation, the student will explore Earth cycles including the geosphere, hydrosphere, cryosphere, atmosphere, and the carbon cycle. The student will learn about scientific inquiry, geologic time, space exploration, the solar system, and the universe. The student will use web 2.0 tools, interactive experiences, higher-order thinking, collaborative projects, and real-world application through labs and a variety of assessments. Upon completion of the course, the student will have a clear understanding of the dynamic forces at work in the surrounding world, becoming better caretakers of planet Earth.

**Course Objectives**

- Define Earth science and identify skills that scientists use to solve problems
- Explain why Earth is studied as a system of structures and spheres
- Relate solar energy and the water cycle to weather and climate
- Describe the composition of Earth's water
- Describe the impact of water pollution

**Units**

**Introduction and Foundation**

This unit is an introduction to the course. Some items covered include the motif, pace, lab safety, Scientific Method, and basic skills.

**Weather and Climate**

You will explore the motion of objects. Most of the types of motion described in this unit are likely familiar to you. You will learn about these common types of motion by studying laws of motion, performing calculations, and conducting virtual laboratory experiments.

**The Water**

You will learn about the water cycle and the processes involved in that cycle; watersheds and their importance; sea water; ocean currents; maps; and sea floor features.
**EARTH SPACE SCIENCE B (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

Why did early explorers risk their lives to reach the North Pole? Why does Earth look so beautiful when seen from space? What is really down at the bottom of the ocean? Discovering new things about Earth has been the dream of scientists and explorers for centuries. Today, it is your turn to continue that journey of discovery. Earth/Space Science is a laboratory course focusing on the study of space, and the geologic and atmospheric forces that shape the world. Through experimentation and investigation, the student will explore Earth cycles including the geosphere, hydrosphere, cryosphere, atmosphere, and the carbon cycle. The student will learn about scientific inquiry, geologic time, space exploration, the solar system, and the universe. The student will use web 2.0 tools, interactive experiences, higher order thinking, collaborative projects, and real-world application through labs and a variety of assessments. Upon completion of the course, the student will have a clear understanding of the dynamic forces at work in the surrounding world, becoming better caretakers of planet Earth.

Course Objectives

- Summarize the theory of plate tectonics and related phenomena
- Describe the composition of Earth's surface and interior
- Explain the rock and carbon cycles; explain the causes and impact of erosion
- Describe and differentiate energy sources
- Explain geologic time and differentiate relative and absolute dating techniques
- Describe components of the solar system and the universe and theories related to the origin of the universe
- Explain Earth/moon/sun relationships that relate to time, tides, and seasons
- Discuss pros and cons of space exploration

**Units**

**Lands**

In this unit, you will learn about the theory of plate tectonics, volcanoes, earthquakes, and other phenomena related to this theory. You will also learn about minerals, rocks and the rock cycle.

**The Past**

In this unit, you will learn about geologic time; relative and absolute dating techniques; the principles and laws by which geologists make assumptions about time; and fossils.
Space: The Final Frontier

In this unit, you will learn about the scientific beliefs about the origin of the universe; the components of the universe; galaxies; our galaxy; our solar system; the planets; and will take a closer look at earth/moon/sun relationships that result in our year, day, tides, and seasons.
ENVIRONMENTAL SCIENCE A (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

Environmental Science A offers students the opportunity to understand the concepts fundamental to ecology and measures to prevent damage to the environment. Lessons in the A course review the scientific method, discuss biodiversity, and review earth processes, including the rain and carbon cycles. Students take a detailed look at the various types of pollution and study how to safeguard resources.

Units

The Methods and Nature of Environmental Science

Welcome to environmental science, the study of the interactions between the physical, chemical, and biological components of the environment, including their effects on all types of organisms. In this opening unit you will learn about the job of an environmentalist, review the scientific method, and explore how organisms are classified.

Earth’s Processes

Several natural processes and cycles affect organisms that inhabit the Earth. In this unit, you will learn about such phenomena as you analyze the water and carbon cycles, examine the greenhouse effect, and explore causes of air, water, and food chain pollution.

Final Review and Exam

In this unit, you will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes before you begin to review.
ENVIRONMENTAL SCIENCE B (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In the second course of Environmental Science, students learn about environmental programs and policies, including waste management and conservation. Students study the effect of environmental organizations as well as government agencies charged with protecting the environment. The final unit examines technology and its impact on the environment; topics include energy production, modern agriculture, and public land management.

Units

Environmental Science Programs and Policies
The United States has several agencies and departments that are dedicated to monitoring and protecting the nation’s natural resources. In this unit, you will learn about how these local and federal agencies work together to effect policy changes, regulate environmental concerns, and prevent further harm to the environment as we move into the future.

The Effects of Environmental Science Technology
There have been many recent advancements in environmental science technology. Many of the previous methods of energy and fuel production have caused harm to the world around you. Today, there are new and innovative methods geared towards preserving and protecting the environment. In this unit you will examine these technological advances and learn how environmental science is changing.

Final Review and Exam
In this unit, you will have the opportunity to prepare for and take the final exam. The final exam may include any material that has been presented throughout the semester. Since this is a comprehensive exam, it may be helpful to organize your notes before you begin to review.
**MARINE SCIENCE A (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

As our amazing planet continues to change over time, it becomes increasingly more apparent how human activity has made environmental impacts. In the marine science course, you will delve deep into Earth's bodies of water and study geologic structures and how they impact the oceans. You will investigate characteristics of various populations, patterns of distribution of life in our aquatic systems, and ongoing changes occurring every day in our precious ecosystems. You will be amazed and enlightened at just how much our oceans and lakes affect climate, weather, and seasonal variations. You will have the opportunity to explore the relationships among living organisms and see how they are affected by our oceans currents, tides, and waves. Hold on, it is one amazing journey.

**Units**

**Nature of Science**

Unit 1 reviews the scientific method, how to write a hypothesis, independent and dependent variables, the properties of water, origins of the earth's oceans, and information about the Bay of Fundy.

**Ocean Exploration**

Unit 2 covers navigation, early ocean expeditions, the rocky shore habitat, crustaceans, and ocean zones. This unit gets you started on your voyage around the world, so it starts with navigation, then discusses earlier ocean research. You will explore the rocky shores of New England, and the organisms that live there. The end of the unit looks at the different ocean zones beginning at the continental shelf and moving outward.

**Sea Turtles and Sandy Beaches**

In Unit 3, you continue to travel south along the east coast of the United States and explore the sandy beach ecosystem. In Lessons 1-4, you will begin learning about sea turtles. Lesson 5 deals with the problems of the shrimping industry related to turtles, and then Lessons 6 and 7 deal with the sandy beach. Lessons 8 and 9 deal with pollution on the beach, and Lesson 9 with oil spills specifically.

**Phytoplankton and Energy**

Unit 4 has you traveling through the Panama Canal into the Pacific Ocean where you will explore the Galapagos Islands and then travel down the coast of South America. During the end of the unit you will look at organisms in the Galapagos, and complete some assignments looking at organisms adapting to the environment. At the very end of the unit, you will learn about food webs, and the energy pyramid.
**MARINE SCIENCE B (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

As our amazing planet continues to change over time, it becomes increasingly more apparent how human activity has made environmental impacts. In the marine science course, you will delve deep into Earth’s bodies of water and study geologic structures and how they impact the oceans. You will investigate characteristics of various populations, patterns of distribution of life in our aquatic systems, and ongoing changes occurring every day in our precious ecosystems. You will be amazed and enlightened at just how much our oceans and lakes affect climate, weather, and seasonal variations. You will have the opportunity to explore the relationships among living organisms and see how they are affected by our oceans currents, tides, and waves. Hold on, it is one amazing journey.

**Units**

**Currents and the Antarctic**

In Unit 1 you travel to the Antarctic and explore the different ocean currents, El Nino and La Nina, hurricanes and organisms in the Antarctic and their adaptations.

**Mollusks and Estuaries**

In Unit 2 you will travel past Madagascar and then on to Australia. In this unit you will look at coral reefs, mollusks, estuaries, and nutrient cycles. You will also complete a dissection lab where you dissect a squid and an oyster.

**What we do not see under the Sea**

Unit 3 has you traveling from Australia to Hawaii. You will look at the abyss, waves, tides, plate tectonics, as well as fish classification and adaptations.

**Marine Mammals**

Unit 4 takes you from Hawaii to the west coast of the US, up the coast into Alaska. This unit covers marine mammal classification and characteristics, human involvement with marine mammals, the kelp ecosystem, and the commercial fishing industry.
PSYCHOLOGY A

Grades: 9, 10, 11, and 12

Credits: 0.50

The exploration of psychology begins with a historical review of how man has sought to explain human behavior from ancient times to today. Students learn about the research methods and how the scientific method of inquiry moved psychology from hypnosis and mesmerism to serious inquiry utilizing hard science to prove theories.

Units

Introducing Psychology

You will learn about the importance of psychology as a field of inquiry and how for thousands of years man has sought to understand the inner workings of the human mind. You will explore psychology’s early roots in philosophy, religion, and mythology; marvel in the strange early "pseudo sciences;" and begin to understand how the rise of science set the stage for psychology as we know it today. The unit begins with an exploration of the value of psychology as a field of study through its practical applications to your everyday life. Through this, you will develop an appreciation for the goals of psychology and an understanding of its scientific basis. The road to modern day psychology is a long and twisting one that is marked by various conflicting perspectives. Because of this, our journey through this unit will take us through the last few centuries where we will meet the major players and the various schools of thought they represent. By building on these early perspectives you will come to understand how modern psychology is indeed a reflection of our current view of the world.

Research Methods Statistics

You learned about the scientific method and that psychologists rely on formal systematic observations to address their questions. It is this methodology that makes psychology scientific. In this unit, we will deepen your understanding of these methods so that you will be able to evaluate the research-based information that is presented to you in your daily life. It is important to think critically about data because you are bombarded with research findings nearly every day. The government, advertisers, scientists and others use research data to draw conclusions about everything from the state of the economy and the safety of products to how to improve your health. Learning how to evaluate these reports from a research perspective will help you use this information wisely and to know which reports you should disregard because of flaws and/or limitations with the study.

Basics of the Nervous System

You will explore the depths of the nervous system and its components. You will begin by understanding the form and functions of the most basic unit of the nervous system, the neuron. You will discover how electrochemical impulses stimulate neurons and nervous system pathways that affect both physical activities and thoughts. You will dissect the human brain in all its beauty and explore the amazing findings that have occurred as a result in technological advances in modern medicine and neuroscience. You will also examine the effects of other factors on behavior, both hormonal and genetic.
This investigation of the nervous system and the brain will further your understanding of the biological bases of behavior and lay the foundation for understanding how people think and perceive the world, and how drugs, sleep, and dreams affect the brain and behavior.

**Altered States**

The phrase "altered state of consciousness" was coined in the 1970s and describes intentionally, unnaturally induced changes in one's mental state, sometimes attained through the use of recreational drugs and psychedelic substances such as LSD and marijuana.

To understand altered states of consciousness, you will build on what you have learned about the normal functioning of the brain and the nervous system and will explore what occurs in the brain during unconscious states. In this exploration, you will attempt to understand the mysteries of the most common unconscious states: sleep and dreams. You will discover that dreams are a language of imagery and that this imagery ranges from the normal to the surreal and can include frightening nightmares. You will come to realize that although this is an area of psychology research that has intrigued scientists and has been the subject of considerable research, no one is actually certain about the function of dreams and sleep.

**Sensation and Perception**

How do you obtain reliable and useful information about the environment through your senses? That is to say, how do you come to be aware of the stimuli in your surroundings? What can illusions tell you about how the visual system normally works?

You will look at behavior (how does an outfielder catch a fly ball?) and neurophysiological evidence (what parts of the brain are most active when we view a spot of red light?). You will explore the anatomical structure of the various sensory systems (how is light transformed into a neural signal within the eye?); the functional architecture of the perceptual parts of the human brain; psychophysics (the quantitative measurement of perceptual experience); form, depth, and motion perception; color vision; visual attention; perceptual memory; auditory perception, and the sense of touch. You will learn about conscious awareness.

**Development Theories**

You will be introduced to the field of developmental psychology, which is the study of behavior across the life span. You will survey the major theorists of this field and discern the key themes of various theoretical perspectives on human development related to cognitive, social, and emotional development, from birth through adolescence. You will learn that psychologists face two critical problems in understanding human development: 1) determining how environmental variables (such as parental attitudes) and biological characteristics (such as health) interact and influence behavior, and 2) understanding how behavioral changes influence one another. Finally, you will look at current research trends that stress the interaction of environmental events and biological traits that influence behavior and development, and understand how and why this research provides methods for helping children with risk factors to develop more normally.

**Final Review and Exam**
PSYCHOLOGY B

Grades: 9, 10, 11, and 12

Credits: 0.50

In Psychology B, students investigate the brain personality theories in order to understand the complex mental processes of learning, memory, thought, and language. Mental health issues, ranging from stress to disorders, are discussed, and the last unit reviews various methods of therapy.

Units

Psychological Testing

What is the nature of intelligence? All of us have some vague notion as to what intelligence means, but do we really know? In this unit, you will look at how psychologists seek to define this elusive notion of intelligence and how the various definitions of this phenomenon influence the development of instruments used to measure intelligence. Some of the instruments for measuring intelligence that you will look at will be very familiar. In fact, you have probably taken a few or more of these tests. You will learn what these tests really seek to measure and how such tests measure different things. In this unit, you will learn about the difference between objective and projective tests, and you will begin to understand the difference between what an SAT or MMPI measures in contrast to some other measurement devices such as the Rorschach Ink Blot tests. Finally, you will have an opportunity to take a few of these tests online and see what the experts say about your personality.

Theories of Personality

On personality theories, you will examine a number of theories from Sigmund Freud’s psychoanalysis to Carl Roger’s cognitive theory of "self." While the sheer volume of personality theories will amaze you, you might find this area a bit confusing. You might ask, "who’s right?" Interestingly, this aspect of psychology is the least amenable to research and provides a great number of complimentary and sometimes conflicting theories. Another interesting thing about the exploration of personality theories is that you might expect it to be the easiest of all since we all come to it with direct access to our own thoughts and feelings and since we have plenty of experience dealing with people. But do not mistake familiarity with knowledge. In fact, the topic of theories of personality is probably one of the most difficult and most complex in the field of psychology. Finally, in this unit, you will come to realize that the study of personality theories is less scientific than you might hope. There will be theories that fit in better with your experiences of self than others. You will also find that there will be times that several theorists say similar things, even though they are taking very different approaches.

Learning, Memory, and Motivation

Learning is involved in almost every phenomenon psychologists study and occurs in many different ways. In this unit, you will explore the major learning theories that shape your understanding of learning principles and applications. Once you have an understanding of how learning occurs, you will begin your study of memory including the memory processes and systems and the nature of forgetting. In the later lessons, you will apply the foundational principles of learning and memory to explore the various forms of human thought and reasoning. This exploration will culminate in your study of the most complex cognitive product that humans have – language.
Stress, Coping, and Mental Health

What is stress? We think that we know what it means, but what does it have to do with psychology or mental health? In this unit, you will not only look at how psychologists define stress, but also what role stress plays in our psychological and physical well-being.

You will be very familiar with some of the ways that stress is defined. However, you will also look at the positive and necessary role that stress plays in our lives through functions such as "fight or flight" and "eustress."

And since it seems that people are constantly looking for ways to reduce the amount of stress in their lives, you will also investigate various methods of stress management.

Disorders

You will learn about the various disorders that can strike during a lifetime. Yet, while you will examine a range of disorders from schizophrenia to drug addiction, you will begin your exploration of disorders by considering an age-old question: "What is normal?" You will discover and learn to evaluate what constitutes normalcy within any given society. You will find that there are many more distinct, recognized disorders than you could have imagined, and you will learn the general characteristics of each. Along the way you will also gain some insight into the cause and prevalence of these disorders. You might be surprised to find which of them are influenced by biological factors (such as genetics and chemical imbalance) as well as how many of them strike adolescents and very young adults.

Therapy and Change

If you are at all familiar with Greek mythology, you will know or recognize the story of Pandora's Box. In the story, Pandora, in her curiosity, briefly released from the box all Disease, Sorrow, Vice, and Crime that plague humanity. Yet, among all of the evil unfurled upon humanity was Hope. And Hope's mission was to heal the damage that was caused by the other inhabitants of the box.

This story is especially fitting for this unit on therapy and change because that is exactly what it represents: hope. With this idea in mind, you will learn about the history and modern practice of various methods of therapy, such as Psychoanalytic, Cognitive, and many others. You will also investigate the potential for change that these methods, and the therapists who practice them, bring to the millions of people who suffer everyday with emotional and mental disorders.

Final Review and Exam
CAREER TECHNICAL EDUCATION (CTE)

ACCOUNTING I (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

This course introduces you to accounting concepts and principles, financial statements, internal control design, and accounting for partnerships. By the end of the course, you will be able to:

- Define terms related to business accounting
- Apply accounting concepts and principles
- Prepare financial statements
- Analyze financial statements for decision making
- Evaluate internal controls
- Account for partnership transactions
- Differentiate international financial reporting standards from generally accepted accounting principles

Online Text/eBook

eText Horngren's Accounting
**ACCOUNTING II (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

The student will build upon knowledge gained in Accounting I and continue to explore topics such as corporate accounting and financial statements, long-term liabilities, cash flow, financial statement analysis, managerial accounting, budgeting, and using financial data to make business decisions.

**Online Text/eBook**

eText Horngren's Accounting
ADMINISTRATIVE DUTIES AND OFFICE MANAGEMENT

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course you will learn the skills and knowledge required to perform tasks in the administrative department of a medical office. Topics include, but are not limited to, receiving patients, scheduling appointments, handling medical records, and processing insurance claims. By the end of the course, you will be able to:

- Employ the steps for basic medical office operating procedures
- Produce clear written communication in the administrative department
- Prepare plans for the medical office facility, office layout, office equipment, and supplies
- Identify the types of computers and systems used in the medical office
- Employ basic security procedures for the medical office computer system
- Describe the function, duties, and procedures of patient reception
- Describe and employ bookkeeping procedures in the medical office
- Employ procedures for processing medical insurance claims

Online Text/eBook

eText Comprehensive Medical Assisting: Administrative and Clinical Competencies
ANATOMY AND PHYSIOLOGY

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will learn about anatomical structures and physiology of the human body. Body systems are discussed in terms of how each participates in homeostasis of the body. Students learn about selected major pathologies, including causes, symptoms, diagnostic procedures, and treatments, as well as common changes that occur through the life span. By the end of the course the student will be able to:

- Describe the organization of the human body
- Explain the contribution that each body system makes to homeostasis of the body
- Identify the major anatomical structures and the purposes of each body system
- Explain the basic physiological processes in each of the body systems
- Describe selected human diseases in terms of definition, cause, signs and symptoms, diagnostic procedures
- Describe common issues or changes that occur in each body system throughout the lifespan

Online Text/eBook

eText Essentials of Anatomy and Physiology, 10th Edition
BUSINESS COMMUNICATION

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, you will explore business communication, including letters, memos, electronic communication, written reports, oral presentations, and interpersonal communication. Resumes, application letters, interviewing tips, and employment follow-up are also covered. By the end of the course, you will be able to:

- Evaluate elements of effective business communication
- Explain barriers that can create ineffective communication
- Analyze ethical issues related to communication
- Examine how technology has impacted business communications
- Explain the importance of intercultural communication in the business setting
- Apply knowledge of effective business communication

Online Text/eBook

eText Excellence in Business Communication
BUSINESS INFORMATION SYSTEMS

Grades: 9, 10, 11, 12

Credits: 0.50

In this course, the student is introduced to various information and communications technologies. The student will examine and explain how information systems are used to solve problems and make better business decisions.

Online Text/eBook

eText Using MIS
BUSINESS LAW

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, you will explore principle areas of business law and topics such as torts, crimes, intellectual property, contracts, negotiable instruments, agency, employment, and forms of business organization. The student will learn rules of law and legal terminology, as well as legal solutions for business-related issues. By the end of the course, you will be able to:

- Analyze the legal environment of business in the United States
- Analyze the various employment laws affecting the employer-employee relationship
- Evaluate the forms of business organization in the United States
- Analyze the ethical and social responsibility of business
- Evaluate the various types of government regulation that affect business
- Appraise the impact that international law has on global business

Online Text/eBook

eText Business Law
**BUSINESS MATH (STEM FOCUSED)**

Grades: 9, 10, 11, and 12

Credits: 0.50

The student will explore topics such as business statistics, profit calculations, payroll, banking, interest calculations, insurance, taxes, and other business topics.

- Solve equations and mathematical problems using whole numbers, fractions, and decimals
- Reconcile bank statements
- Analyze business problems and financial statements using percentages and statistical concepts
- Explain various payroll issues that affect employers and employees
- Apply mathematical concepts to business lending transactions, transactions involving annuities and stocks and bonds, transactions involving inventory and business problems involving pricing and discounts
- Calculate various mortgage, insurance, and tax problems
- Apply various depreciation methods

**Online Text/eBook**

eText Business Math
**CAREER EXPLORATION**

Grades: 9, 10, 11, and 12

Credits: 0.50

From writing an effective resume to giving the perfect interview and succeeding at a chosen career, this course introduces students to a broad scope of future career opportunities and outlines steps to ensure success. Students start planning their transition from secondary school to college and then to the workplace.

Career Exploration is designed for high school students that are ready to begin exploring the workplace and the many paths towards an interesting and fulfilling career. Career Exploration looks at the many career options available and examines the qualifications needed to reach personal career goals.

**Units**

**Unit 1: Career Exploration Introduction**
You will get started in exploring careers and begin to plan your career planning portfolio.

**Unit 2: Knowing the Plan**
You will explore the reasons why it is good to have a career plan and study the changes happening in the world of work.

**Unit 3: Getting to Know Yourself**
The theme of this unit is introspection, or in other words, thinking about yourself. You will think about your personality, skills and interests, and start picturing yourself in the world of work.

**Unit 4: Knowing What You Want**
You will have the opportunity to not only decide what is important to you—what you want—but you will also spend some time figuring out the financial cost of your desires. This information will help you figure out, in the Cheshire Cat’s terms, what career “road” is best for you.

**Unit 5: Getting to Know the Job Market**
You will be exploring careers in a more in-depth manner. You will also explore entrepreneurship.

**Unit 6: Getting Ready for a Career**
You will continue the career exploration process by narrowing down your career list to one career or field of interest based on all of the information that you have gathered in previous units. Specifically, you will be comparing your career research to your personal profile, which should include information about what you are good at, what you are interested in, and how much money you would need to make to maintain a lifestyle that you want.
Unit 7: Getting a Job

So now you have a general idea of what you may pursue, so how do you get the job you want when you are ready for it? And once you have the job/career that you want, how can you make sure you will be successful? In this unit you will examine how to create documents that will help you get a job; learn proper interviewing techniques; examine and analyze workplace scenarios.

Unit 8: Keeping Your Career Going

You will analyze some key elements of keeping a top. These include developing and strengthening a work ethic, developing effective workplace etiquette, and continuing to prepare for your future.
CRIMINAL INVESTIGATION (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will examine the process of identifying and arresting criminal suspects, types of crimes and offenses, and preparing for court. The student will study the history of criminal investigation and explore the relationship between investigation and the courtroom process by examining case studies. By the end of the year, the student will be able to:

- Define terms related to criminal investigation
- Outline the history of criminal investigation
- Analyze the process of criminal investigation
- Examine types of criminal offenses
- Explain the relationship between criminal investigation and the courtroom process

Online Text/eBook

**DEVELOPMENTAL WRITING**

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will explore the fundamental tools and techniques needed to write clear sentences, effective paragraphs, and well-organized essays for general education courses and employment settings. Using Standard American English, the student will learn to organize, clarify, and communicate written ideas, as well as how to use correct sentence structure, grammar, and parts of speech in written communication. The student will also develop skills in revising and editing to clarify voice, tone, style, and mode. By the end of the course, the student will be able to do the following:

- Assess a written passage for clear writing
- Write using Standard American English
- Write a variety of complex sentences
- Use sentence mechanics properly
- Analyze the writing process
- Analyze writing modes and their purpose
- Write an essay

**Online Text/eBook**

eText The Writer's World: Paragraphs and Essays
HEALTH, SAFETY, AND NUTRITION

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will learn about the physical and psychological needs of children, from birth to age eight, and how to meet these needs in group settings. Topics include wellness of young children, standards, guidelines and national initiatives, children’s nutritional needs, safe and healthy environments, emergency response, child abuse and neglect, educational experiences, and partnering with families. By the end of the course, the student will be able to:

- Analyze wellness issues that apply to young children
- Analyze health, safety, and nutrition standards, guidelines, and national initiatives and their role in early childhood settings
- Analyze, design, and create healthy environments for children in early childhood settings
- Evaluate children’s health and safety
- Develop effective learning experiences for young children

Online Text/eBook

eText Nutrition, Health, and Safety for Young Children: Promoting Wellness
HUMAN RESOURCE MANAGEMENT

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, students will explore the important role human resource management (HRM) professionals play in organizations, as well as the key functions within HRM. Some of these functions include recruitment, selection, training and development, appraisal, engagement and retention, compensation, and employee relations. Students will also examine how HRM is being affected by an increasingly global business environment.

- Develop a strategic HR plan for an organization
- Develop a personnel planning and recruiting plan for an organization
- Identify key deficits in employee training and development programs
- Develop performance appraisal criteria for multiple positions in an organization
- Determine which type of pay plan and benefits mix would be suitable to an organization’s strategic initiatives and employee base
- Identify legal, health, and safety issues in the workplace
- Identify the need for global HR expansion and develop a hiring strategy that best suits the new business environment

Online Text/eBook

eText Human Resource Management
INTRODUCTION TO BUSINESS
Grades: 9, 10, 11, and 12
Credits: 0.50

Do you have a business idea, but are unsure about how to market your ideas to customers? Do careers in business appeal to you? In this Introduction to Marketing class, you’ll master the basics of marketing, including core concepts such as financing, pricing, distribution, product management, and more. Throughout the course you’ll learn about the basics of economics and economic systems, managing business finances accounting practices, operating a business in the global marketplace, generating business ideas and seeking out business opportunities, creating a business plan, and promoting and advertising a business.

Units

Course Overview
You will receive a basic overview of the course. You will learn how to navigate through the course, find and zip files, set up your Web browser, and complete coursework. You will also learn about using trustworthy sources, avoiding plagiarism, and making proper citations.

Economics
You will learn about basic economic concepts involving scarcity, markets, goods and services, producers and consumers, and supply and demand. You will also learn about capitalism and other types of economic systems.

Costs and Profit
You will learn about business costs, including revenue and profit. You will also learn about concepts related to efficiency and productivity, including specialization, division of labor, and economies of scale. This unit also teaches the concepts of value and economic utility.

Business Types
You will learn about owning and running a business. You will learn about types of industries, goods and services, liability, and taxation. You will also learn about business ownership, the stages and structures of a business, market saturation, and the product life cycle.

Money Management
You will learn about managing your money. Income, economic goals, and budgeting will be covered. You will also learn about banking risks and security, investing, equity and debt investments, and investment income.

Taxes and Credits
You will learn about taxes, including payroll withholding. You will also learn about credit and debit. Related to this, you will learn about loans, credit history, and credit scores.
**Business Finance**
You will learn about business finance and accounting. Related to this, you will learn about funding, financial health, bookkeeping, financial statements, risk and risk management, and opportunity cost.

**Business and Society**
You will learn about globalization, including importing and exporting. You will also learn about government agencies and regulations that affect businesses. This unit also discusses issues of law related to business, including contracts, intellectual property, ethics, and conflicts of interest.

**Business Planning**
You will learn about how to plan and realize business ideas and opportunities. Related to this, you will learn about the importance of business trends. You will also explore how to develop mission, vision, and value statements and establish the scope of a business.

**Marketing**
You will learn about the importance of marketing to business. Related to this, you will learn about developing a brand, corporate image, marketing message, and marketing plan. You will also become familiar with various marketing tools and the concepts of market share and market penetration.

**Promotion**
You will learn about promoting a business. You will learn about promotional and advertising methods. You will also learn about evaluating promotions and advertisements.
INTRODUCTION TO CRIMINAL JUSTICE

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will explore law enforcement, the courts, and the correctional system. The student will study what crime is, how crime is measured, and theories of crime causation. Issues and challenges within the criminal justice system and its future directions will also be examined. By the end of the course, the student will be able to:

- Examine and evaluate the justice system
- Analyze concepts related to criminal law
- Compare theories of crime
- Evaluate the impact history has had on the American justice system
- Examine issues and emerging trends in criminal justice

Online Text/eBook

eText Criminal Justice Today
**INTRODUCTION TO EARLY CHILDHOOD EDUCATION**

Grades: 9, 10, 11, and 12

Credits: 0.50

This course provides the historical, theoretical, and developmental foundations for educating young children, with emphasis on creating inclusive environments and curricula for diverse children and their families. Topics include historical influences, program types, guidance strategies, professionalism, current trends and issues, and advocacy. By the end of the course, the student will be able to:

- Analyze the roles, responsibilities and requirements for those who work in early childhood settings
- Analyze the evolution of the field of Early Childhood Education through its historical figures and developmental and learning theorists
- Analyze current issues that have implications for children, families, society, and early childhood professionals
- Describe and evaluate developmental accomplishments and learning environments of young children birth through age eight
- Analyze and apply practices that ensure the health, safety, and well-being of all children
- Evaluate the attributes of professional practice, advocacy, and social justice

**Online Text/eBook**

eText Effective Practices in Early Childhood Education: Building a Foundation
INTRODUCTION TO FINANCE (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will gain an understanding of financial management, including key language and terminology, time-value of money, financial markets and securities, financial statements, financial analysis, risk and return, valuation of stocks and bonds, capital budgeting and valuation, cost of capital and capital structure, working capital management, dividend policy, and international finance. The student will apply financial tools and understand how they impact financial decision making. By the end of the course, the student will be able to:

- Explain the primary role of the financial firm and financial manager
- Analyze financial statements
- Explain risk and return relationships
- Evaluate financial markets and securities traded on financial markets
- Apply capital budgeting tools
- Evaluate how international issues impact a financial firm
**INTRODUCTION TO HOMELAND SECURITY**

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course you will examine the elements involved in the homeland security function, as well as the challenges managers in government and industry can face while maintaining mission operations and staff accountability in the midst of multiple overlapping roles and responsibilities. The key functions of threat prevention, asset protection, crisis response, and operations recovery are addressed from a variety of perspectives. By the end of the course, you will be able to:

- Compare national security policy before and after 9/11
- Describe the formation, purpose, and organization of the Department of Homeland Security
- Examine the types and effects of terrorism
- Analyze intelligence
- Describe the United States’ approach to emergency management
- Describe the purpose, structure and function of the Incident Command System (ICS)
- Examine the role of various fields in preparing for and responding to emergencies

**Online Text/eBook**

eText Introduction to Homeland Security
INTRODUCTION TO LAW

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will explore substantive and procedural areas of law and legal practice, such as the legal profession, courts, ethics, sources of law, and alternative dispute resolution systems. The student will analyze an application of law to factual circumstances. By the end of the course, the student will be able to:

- Examine the sources of American law and the court system
- Research and draft legal documents
- Analyze and explain the trial process
- Explain criminal law and procedure
- Examine family, real estate, employment, and bankruptcy laws

Online Text/eBook

eText Introduction to Law
INTRODUCTION TO MEDICAL ASSISTING (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will explore the role of the medical assistant, including professionalism, duties and responsibilities, and medical specialties. Information on medical law and ethics, office management, and compliance and regulatory issues affecting the role of the medical assistant will also be examined.

Online Text/eBook

eText Comprehensive Medical Assisting: Administrative and Clinical Competencies
INTRODUCTION TO THE PARALEGAL PROFESSION

Grades: 9, 10, 11, and 12

Credits: 0.50

The student will explore the role of paralegals in the legal system, paralegal skills, legal working environments, ethical considerations, and career opportunities. The student is introduced to the sources of law, an overview of courts, and alternative dispute resolution systems.

- Summarize the role of the paralegal in the American legal system
- Describe the process of becoming a paralegal professional and prepare a résumé for a paralegal position
- Examine how the paralegal profession is regulated
- Analyze ethical issues commonly encountered by a paralegal
- Describe elements in preparing for trial
- Explain the trial process and explore styles and formats used in legal writing
- Research legal matters and draft legal documents

Online Text/eBook

eText Paralegal Profession: The Essentials
**INTRODUCTION TO PSYCHOLOGY**

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will gain an understanding of human behavior, including biological foundations and the brain, sensation, motivation, and perception. The relationship between learning and memory; various personality theories; emotions; states of consciousness; cognition; life-span development; and applied psychology will be explored. By the end of the course, the student will be able to:

- Explain the anatomical structures and physiological functions related to psychology
- Analyze the underlying principles and basis of psychology behind learning, memory, and experience
- Examine motivation theories and basis of emotions
- Analyze psychoanalytic approaches and theories to explain behaviors and personality traits
- Examine methods and effectiveness of psychotherapy
- Investigate trends in social behavior and the impact of social influences

**Online Text/eBook**

eText Psychology
INTRODUCTION TO SOCIOLOGY

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will examine the sociological processes that underlie everyday life, focusing on globalization, cultural diversity, critical thinking, new technology, and the growing influence of mass media.

Online Text/eBook

eText Essentials of Sociology: A Down-to-Earth Approach
INTRODUCTORY ASTRONOMY (STEM FOCUSED)

Grades: 9, 10, 11, 12

Credits: 0.50

In this course the student will explore a broad range of astronomy topics, including the planetary system, stars, galaxies, and the universe. The student will also apply the scientific method and examine the evolution of scientific ideas.

Online Text/eBook

LEADERSHIP AND SUPERVISION IN BUSINESS

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, students are introduced to core functions related to leadership and supervision. The student will examine the supervisory role and the skills required to act in the capacity of supervisor. The student will also gain insight into contemporary issues related to supervising in today’s work environment.

- Examine the supervisory role
- Examine human resource issues that impact supervisory roles in the work place
- Determine effective communication and mediums to facilitate productivity in the work environment
- Distinguish between various methods employed to appraise employee performance
- Distinguish between various motivation techniques used to achieve work environment goals
- Determine what is considered a safe workplace and the requirements of the Occupational Safety and Health Act
- Determine effective approaches to contract negotiation with labor unions

Online Text/eBook

eText Supervision Today! 7th Edition
MEDICAL LAW AND ETHICS

Grades: 9, 10, 11, and 12

Credits: 0.50

As a health care professional it is important to understand the legal and ethical issues that can impact the role one has in the health care setting. This course provides an introduction to the laws that regulate the health care industry such as HIPAA, the Patient’s Bill of Rights, and the standard of care. In addition to the legal aspects, this course presents information on ethical and moral issues that health care professionals may encounter and encourages the student to consider the impact that personal ethics and morals have on decision making.

- Analyze issues of law and ethics as related to health care
- Assess the importance of confidentiality in the health care setting from both a legal and ethical standpoint
- Analyze the impact that local, state, and federal legislation have on practices found in health care
- Compare and contrast the roles of various members of the health care team in terms of standard of care
- Evaluate the effect of personal ethics on personal job performance in a health care setting
- Debate ethical and moral issues in health care
- Determine the role of cultural, social, and ethnic diversity within health care

Online Text/eBook

eText Medical Law and Ethics
MEDICAL TERMINOLOGY (STEM FOCUSED)

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will learn medical terminology, symbols and abbreviations, and the application of this language in the field of health care. Although the student will analyze terms related to body structure and function, the main focus will be on medical vocabulary and being able to construct terms using word parts such as roots, suffixes, and prefixes.

Online Text/eBook

eText Medical Language, 2nd Edition
PRINCIPLES OF MANAGEMENT

Grades: 9, 10, 11, and 12

Credits: 0.50

The student is introduced to common management philosophies and issues in today’s changing world. The student will study globalization, ethics, diversity, customer service, and innovation from a managerial perspective. At the end of this course, the student will be able to do the following:

- Contrast and apply theories and techniques of managing, motivating, and leading others
- Analyze the impact of an organization’s culture, environment, and design on management
- Examine how social responsibility and ethics affect management functions
- Analyze issues facing managers when performing management functions
- Examine challenges related to organizational strategies and processes that managers face in today's business environment
- Evaluate approaches to communication to best fit an organizational structure
- Assess approaches to controlling organizational performance and examine operations management

Online Text/eBook

eText Fundamentals of Management: Essential Concepts and Applications
PRINCIPLES OF MARKETING

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course, the student will explore factors influencing how marketing decisions are made, including the impact of marketing decisions on an organization and its customers. Throughout the course, the student will gain a working knowledge of practical marketing and business vocabulary. The student will also evaluate how the actions of competitors influence marketing decisions in the global marketplace.

Online Text/eBook

eText Marketing: An Introduction
PUBLIC SPEAKING

Grades: 9, 10, 11, and 12

Credits: 0.50

This course provides the student with a basic understanding of public speaking and how to prepare and present a variety of speeches. The student learns strategies to effectively communicate, to adapt to different audiences, and to practice organizational methods to create engaging speech content.

- Demonstrate knowledge of public speaking and speech delivery principles
- Analyze components and delivery of speeches
- Perform audience analysis tasks
- Prepare speech topics and outlines
- Select supporting materials and presentation aids in speech preparation
- Prepare each of the components of a speech
- Prepare a variety of different speech types

Online Text/eBook

eText Public Speaking: An Audience-Centered Approach
**RESEARCH METHODS**

Grades: 9, 10, 11, and 12

Credits: 0.50

In this course the student will explore and apply the fundamentals of scientific research methodology by examining a social issue. The student will develop a research question, find and evaluate existing research, and design and implement an objective research method. By the end of the course, the student will be able to:

- Demonstrate an understanding of the fundamentals of qualitative research
- Design an original research question to draw valid conclusions
- Gather data using an appropriate method
- Synthesize research
- Evaluate the methodology, evidence, and conclusions of others' research
- Analyze the challenges and ethical issues in social research
SPORTS MANAGEMENT

Grades: 9, 10, 11, and 12

Credits: 0.50

This course will introduce you to the fast-growing field of sports management. You will explore topics such as sports marketing, branding, ticket sales, public relations, broadcasting, and breaking into the business of sports management. This course will also discuss the role of sports in society and the importance of an ethical approach to sports management.

Units

Introduction to Sports Management
This unit will serve as an introduction to the entire course. You will be introduced to basic terms and phrases associated with sports management. You will also learn the differences between leagues and levels of play, key roles in front offices, revenue for teams, the relationship between teams and the facilities they play in, and most importantly, what sports management is in industry terms.

Sports Marketing and Sales
You will become more familiar with sports marketing, brand management, and the major revenue streams of ticketing and sponsorship. Additionally, you will learn about pricing of those revenue streams, how they are promoted, and what profit margins are involved.

Media and Public Relations
This unit will illustrate the role the media plays in sports management and the relationship between the media and sports franchises. You will learn how teams work with various forms of media to communicate with the public. Lastly, you will learn the importance of public relations in sports management and why it is one of the most important aspects of sports management. You may not hear much about the role of public relations in sports, but it is one of the most important aspects of sports management.

Ethics in Sports Management
This unit will demonstrate why ethical business practices are important for sports franchises. Additionally, you will learn how a team's actions, policies, and business practices can impact its local community, both fans and non-fans alike.

Careers in the Sports Industry
You will learn the most common ways to start a career in sports management. You will also learn the financial and workload realities of working in the industry. Lastly, you will learn how to prepare yourself and differentiate yourself to be more attractive as a potential employee.
APPENDIX A
CURRICULUM

A.4 LIST OF MATERIALS
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Appendix A.4 List of Materials  Page 3
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| Language Arts | Frog and Toad Are Friends | 9780064440202 | Yes | Novel |
| Language Arts | Language Arts 2 A and B Answer Key | LA1201AKY | Yes | Lesson Manual/Course Guide |
| Language Arts | Language Arts 2 A and B Course Guide | LA1302CGD | Yes | Lesson Manual/Course Guide |
| Language Arts | Reading Street Grade 2 Grammar and Writing Practice Book | 9780328146239 | Yes | Workbook |
| Language Arts | Reading Street Grade 2 Phonics and Spelling Practice Book | 9780328146475 | Yes | Workbook |
| Language Arts | Reading Street Grade 2 Volume 1 | 9780328243488 | Yes | Textbook |
| Language Arts | Reading Street Grade 2 Volume 2 | 9780328243495 | Yes | Textbook |
| Language Arts | Reading Street Grade 2 1 Practice Book | 9780328145171 | Yes | Workbook |
| Language Arts | Reading Street Grade 2 2 Practice Book | 9780328145188 | Yes | Workbook |
| Language Arts | Zaner-Bloser Handwriting 2 | 9780736768382 | Yes | Workbook |
| Language Arts | Frog and Toad Are Friends | 9780064440202 | Yes | Novel |
| Language Arts | Language Arts 2 A and B Answer Key | LA1201AKY | Yes | Lesson Manual/Course Guide |
| Language Arts | Language Arts 2 A and B Course Guide | LA1302CGD | Yes | Lesson Manual/Course Guide |
| Language Arts | Reading Street Grade 2 Grammar and Writing Practice Book | 9780328146239 | Yes | Workbook |
| Language Arts | Reading Street Grade 2 Phonics and Spelling Practice Book | 9780328146475 | Yes | Workbook |
| Language Arts | Reading Street Grade 2 Volume 1 | 9780328243488 | Yes | Textbook |
| Language Arts | Reading Street Grade 2 Volume 2 | 9780328243495 | Yes | Textbook |
| Language Arts | Reading Street Grade 2 1 Practice Book | 9780328145171 | Yes | Workbook |
| Language Arts | Reading Street Grade 2 2 Practice Book | 9780328145188 | Yes | Workbook |
| Language Arts | Zaner-Bloser Handwriting 2 | 9780736768382 | Yes | Workbook |
| Language Arts | Ben Franklin and the Magic Squares | 9780375806216 | Yes | Novel |
| Language Arts | Language Arts 3 A and B Course Guide | LA1303CGD | Yes | Lesson Manual/Course Guide |
| Language Arts | Miss Rumphius | 9780140505399 | Yes | Novel |
| Language Arts | Reading Street Grade 3 Phonics and Spelling Practice Book | 9780328146482 | Yes | Workbook |
| Language Arts | Reading Street Grade 3 The Grammar &amp; Writing Book | 9780328146576 | Yes | Workbook |
| Language Arts | Reading Street Grade 3 Volume 1 | 9780328243501 | Yes | Textbook |
| Language Arts | Reading Street Grade 3 Volume 2 | 9780328243518 | Yes | Textbook |
| Language Arts | Reading Street Grade 3 1 Practice Book | 9780328145195 | Yes | Workbook |
| Language Arts | Reading Street Grade 3 2 Practice Book | 9780328145201 | Yes | Workbook |
| Language Arts | The Mouse and the Motorcycle | 9780380709243 | Yes | Novel |
| Language Arts | Zaner-Bloser Handwriting 3 | 9780736768599 | Yes | Workbook |
| Language Arts | Ben Franklin and the Magic Squares | 9780375806216 | Yes | Novel |
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| Language Arts | Reading Street Grade 3 The Grammar &amp; Writing Book | 9780328146576 | Yes | Workbook |
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| Language Arts | Reading Street Grade 3 Volume 2 | 9780328243518 | Yes | Textbook |
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| Language Arts | Reading Street Grade 3 2 Practice Book | 9780328145201 | Yes | Workbook |
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**Appendix A.4 List of Materials**

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Appendix A.4 List of Materials Page 15
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Reach Cyber Charter School Application

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APPENDIX A
CURRICULUM

A.5 ALIGNMENTS

It includes the alignments for the Reach curriculum in the following subject areas:

a. English Language Arts K-12
b. Mathematics K-12
c. Science K-12
d. Social Studies K-12
ENGLISH LANGUAGE ARTS
K-12
## Kindergarten

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<th>Instructional Activities</th>
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<td><strong>Unit 1: How Do We Live, Work, and Play Together?</strong></td>
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<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Describe how people live, work, and play together</td>
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<td>Develop oral vocabulary using high-frequency words and Amazing Words</td>
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<td>Identify rhyming words, syllables, and initial and final word sounds</td>
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<td>Sequence, classify, and categorize character and setting</td>
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<td><strong>Unit 2: How Are Animals and Plants Unique?</strong></td>
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<td>Describe what makes plants and animals unique.</td>
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<td>Identify the main idea of informational texts and distinguish between realism and fantasy.</td>
<td>CC.1.2.K.A, CC.1.2.K.C, CC.1.2.K.H, CC.1.3.K.E</td>
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<tr>
<td>Unit 3: How Does Change Affect Us?</td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>Reading Street Text Reader's and Writer's Notebook My Skills Buddy Interactive</td>
</tr>
<tr>
<td>Develop understanding of oral vocabulary, color, action, position, feelings, opposites, and high-frequency words.</td>
<td>CC.1.1.K.D</td>
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<tr>
<td>Identify, read, and write words with initial /r/, /d/, and /k/, and initial and final /n/ and /b/.</td>
<td>CC.1.1.K.C</td>
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<tr>
<td>Identify meaningful words groups to construct a sentence and use verbs in the past, present, and future tenses.</td>
<td>CC.1.1.K.B, CC.1.4.K.M, CC.1.4.K.F, CC.1.4.K.C</td>
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<tr>
<td>Analyze how living things grow and change.</td>
<td>CC.1.2.K.A</td>
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<tr>
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<td>Instructional Activities</td>
<td>Materials</td>
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<tr>
<td><strong>Unit 1: How Does Change Affect Us?</strong></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>Reading Street Text Reader's and Writer's Notebook My Skills Buddy Interactive</td>
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<tr>
<td>Develop understanding of oral vocabulary, color, action, position, feelings, opposites, and high-frequency words.</td>
<td>CC.1.1.K.D</td>
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<tr>
<td>Identify, read, and write words with initial /f/ and initial and medial /o/.</td>
<td>CC.1.1.K.C</td>
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<tr>
<td>Identify meaningful words groups to construct a sentence and use verbs in the past, present, and future tenses.</td>
<td>CC.1.1.K.B, CC.1.4.K.M, CC.1.4.K.F, CC.1.4.K.C</td>
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<tr>
<td>Retell a selection to identify plot and draw conclusions about its features.</td>
<td>CC.1.2.K.A, CC.1.3.K.C</td>
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<tr>
<td>Analyze how living things grow and change.</td>
<td>CC.1.2.K.A</td>
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<tr>
<td><strong>Unit 2: Where Will Our Adventures Take Us?</strong></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>Reading Street Text Reader's and Writer's Notebook My Skills Buddy Interactive</td>
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<tr>
<td>Describe what people can learn from adventures.</td>
<td>CC.1.2.K.A, CC.1.2.K.B</td>
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<tr>
<td>Recognize and write uppercase and lowercase letters</td>
<td>CC.1.1.K.B</td>
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<tr>
<td>Language Arts KB Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
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<tr>
<td>Develop oral vocabulary using high-frequency words and Amazing Words</td>
<td>CC.1.1.K.C, CC.1.1.K.D</td>
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<tr>
<td>Sequence, compare and contrast, and draw conclusions about plot and character.</td>
<td>CC.1.3.K.C</td>
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<tr>
<td>Identify cause and effect and summarize the main idea of informational texts.</td>
<td>CC.1.2.K.A</td>
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<tr>
<td><strong>Unit 3: How Do People And Things Get From Here to There?</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>Reading Street Text Reader’s and Writer’s Notebook My Skills Buddy Interactive</td>
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<tr>
<td>Describe modes of transportation</td>
<td>CC.1.2.K.A, CC.1.2.K.B</td>
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<tr>
<td>Write words, sentences, and questions using uppercase and lowercase letters.</td>
<td>CC.1.1.K.B</td>
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<tr>
<td>Develop oral vocabulary using high-frequency words and Amazing Words</td>
<td>CC.1.1.K.C, CC.1.1.K.D</td>
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<tr>
<td>Identify rhyming words, syllables, and initial and final word sounds</td>
<td>CC.1.1.K.C</td>
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<tr>
<td>Sequence, draw conclusions, and analyze cause and effect in plot, character, and theme.</td>
<td>CC.1.3.K.C</td>
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## Grade 1

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<tbody>
<tr>
<td><strong>Unit 1: You’re In First Grade Now</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>Reading Street Text Phonics and Spelling Practice Book</td>
</tr>
<tr>
<td>Review Letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.1.B, CC.1.1.1.C, CC.1.1.1.D</td>
<td>4-5 Weeks</td>
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<tr>
<td>Read fiction and nonfiction selection and learn to distinguish between the two.</td>
<td>CC.1.2.1.L, CC.1.3.1.K, CC.1.3.1.E</td>
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<tr>
<td><strong>Unit 2: Animals, Tame and Wild</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>Reading Street Text Phonics and Spelling Practice Book</td>
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<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.1.C, CC.1.1.1.D, CC.1.1.1.E</td>
<td>4-5 Weeks</td>
<td></td>
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<tr>
<td>Language Arts 1A Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Materials</td>
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<tr>
<td>Read fiction and nonfiction selection and learn to distinguish between the two.</td>
<td>CC.1.2.1.L, CC.1.3.1.K, CC.1.3.1.E</td>
<td></td>
<td>From the unit, students will have regular instructional contact with their</td>
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<td></td>
<td>teachers and with other students through a combination of phone calls, WebMail</td>
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<td></td>
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<td>messages, LiveLesson® (virtual classroom) sessions, message boards,</td>
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<td></td>
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<td>discussion boards, teacher virtual office hours, face-to-face interaction, and the</td>
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<td>daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Apply reading comprehension skills and strategies before, during, and after reading.</td>
<td>CC.1.3.1.A, CC.1.3.1.B,</td>
<td></td>
<td>From the unit, students will have regular instructional contact with their</td>
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<tr>
<td></td>
<td>CC.1.3.1.C, CC.1.3.1.F,</td>
<td></td>
<td>teachers and with other students through a combination of phone calls, WebMail</td>
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<tr>
<td></td>
<td>CC.1.3.1.G, CC.1.3.1.K</td>
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<td>messages, LiveLesson® (virtual classroom) sessions, message boards,</td>
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<td>Understand the parts of a simple sentence.</td>
<td>CC.1.1.1.B</td>
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<td>From the unit, students will have regular instructional contact with their</td>
<td></td>
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<tr>
<td>Follow the steps of the writing process to write simple sentences in response to a writing prompt.</td>
<td>CC.1.4.1.A, CC.1.4.1.B,</td>
<td></td>
<td>From the unit, students will have regular instructional contact with their</td>
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<tr>
<td></td>
<td>CC.1.4.1.C, CC.1.4.1.F,</td>
<td></td>
<td>teachers and with other students through a combination of phone calls, WebMail</td>
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<td></td>
<td>CC.1.4.1.J, CC.1.4.1.L,</td>
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<td>messages, LiveLesson® (virtual classroom) sessions, message boards,</td>
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<tr>
<td></td>
<td>CC.1.4.1.P, CC.1.4.1.Q</td>
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<td>discussion boards, teacher virtual office hours, face-to-face interaction, and the</td>
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<td>daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 3: Communities</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their</td>
<td>Reading Street Text Phonics and Spelling</td>
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<td></td>
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<td></td>
<td>teachers and with other students through a combination of phone calls, WebMail</td>
<td>Practice Book</td>
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<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.1.C, CC.1.1.1.D,</td>
<td></td>
<td>From the unit, students will have regular instructional contact with their</td>
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<td></td>
<td>CC.1.1.1.E</td>
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<td>teachers and with other students through a combination of phone calls, WebMail</td>
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<tr>
<td>Read fiction and nonfiction selections that explore the theme of communities.</td>
<td>CC.1.2.1.L, CC.1.3.1.K,</td>
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<td>From the unit, students will have regular instructional contact with their</td>
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<td></td>
<td>CC.1.3.1.E</td>
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<td>teachers and with other students through a combination of phone calls, WebMail</td>
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<td>Apply reading comprehension skills and strategies before, during, and after reading.</td>
<td>CC.1.3.1.A, CC.1.3.1.B,</td>
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<td>From the unit, students will have regular instructional contact with their</td>
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<td></td>
<td>CC.1.3.1.C, CC.1.3.1.F,</td>
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<td>teachers and with other students through a combination of phone calls, WebMail</td>
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<td></td>
<td>CC.1.3.1.G, CC.1.3.1.K</td>
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<td>messages, LiveLesson® (virtual classroom) sessions, message boards,</td>
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<tr>
<td>Understand the characteristics of nouns, including proper nouns.</td>
<td>CC.1.4.1.L</td>
<td></td>
<td>From the unit, students will have regular instructional contact with their</td>
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<tr>
<td>Follow the steps of the writing process to response to writing prompts, developing compositions</td>
<td>CC.1.4.1.A, CC.1.4.1.B,</td>
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<td>From the unit, students will have regular instructional contact with their</td>
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<tr>
<td>in a variety of genres.</td>
<td>CC.1.4.1.C, CC.1.4.1.F,</td>
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<td>teachers and with other students through a combination of phone calls, WebMail</td>
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<td>CC.1.4.1.J, CC.1.4.1.L,</td>
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<td></td>
<td>CC.1.4.1.P, CC.1.4.1.Q</td>
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<td>discussion boards, teacher virtual office hours, face-to-face interaction, and the</td>
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<td>daily review of assignments via the electronic grade book.</td>
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<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
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<tr>
<td><strong>Unit 4: Ira Sleeps Over</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Relate a fiction text to a personal experience.</td>
<td>CC.1.3.1.F, CC.1.3.1.G, CC.1.3.1.H</td>
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<tr>
<td>Apply knowledge of letter-sound patterns and word structure to spell compound words correctly.</td>
<td>CC.1.1.1.C, CC.1.1.1.D, CC.1.1.1.E</td>
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<tr>
<td>Follow the steps of the writing process to form an opinion and support it.</td>
<td>CC.1.4.1.G, CC.1.4.1.H, CC.1.4.1.I</td>
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<tr>
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<tr>
<td><strong>Unit 1: Changes</strong></td>
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<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.1.C, CC.1.1.1.D, CC.1.1.1.E</td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through phone calls, WebMails, LiveLesson® sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>Reading Street Text Phonics and Spelling Practice Book</td>
</tr>
<tr>
<td>Read fiction and nonfiction selections that explore the theme of change.</td>
<td>CC.1.2.1.L, CC.1.3.1.K, CC.1.3.1.E</td>
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<tr>
<td>Understand the characteristics of verbs</td>
<td>CC.1.4.1.L</td>
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<tr>
<td>Follow the steps of the writing process to respond to writing prompts in a variety of genres.</td>
<td>CC.1.4.1.A, CC.1.4.1.B, CC.1.4.1.C, CC.1.4.1.F, CC.1.4.1.J, CC.1.4.1.L, CC.1.4.1.P, CC.1.4.1.Q</td>
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<tr>
<td><strong>Unit 2: Treasures</strong></td>
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<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.1.C, CC.1.1.1.D, CC.1.1.1.E</td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>Reading Street Text Phonics and Spelling Practice Book</td>
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<tr>
<td>Language Arts 1B Units and Objectives</td>
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<tr>
<td>Read fiction and nonfiction selections that explore the theme of treasures.</td>
<td>CC.1.2.1.L, CC.1.3.1.K, CC.1.3.1.E</td>
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<tr>
<td>Understand the characteristics of adjectives.</td>
<td>CC.1.4.1.L</td>
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<tr>
<td>Follow the steps of the writing process to respond to writing prompts, developing paragraph-length compositions in a variety of genres.</td>
<td>CC.1.4.1.A, CC.1.4.1.B, CC.1.4.1.C, CC.1.4.1.F, CC.1.4.1.J, CC.1.4.1.L, CC.1.4.1.P, CC.1.4.1.Q</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>Reading Street Text Phonics and Spelling Practice Book</td>
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<tr>
<td>Unit 3: Great Ideas</td>
<td></td>
<td>4-5 Weeks</td>
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</tr>
<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.1.C, CC.1.1.1.D, CC.1.1.1.E</td>
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<tr>
<td>Read fiction and nonfiction selections that explore the theme of great ideas.</td>
<td>CC.1.2.1.L, CC.1.3.1.K, CC.1.3.1.E</td>
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<tr>
<td>Understand the characteristics of pronouns, commands, and exclamations.</td>
<td>CC.1.4.1.L</td>
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</tr>
<tr>
<td>Follow the steps of the writing process to respond to writing prompts, developing paragraph-length compositions in a variety of genres.</td>
<td>CC.1.4.1.A, CC.1.4.1.B, CC.1.4.1.C, CC.1.4.1.F, CC.1.4.1.J, CC.1.4.1.L, CC.1.4.1.P, CC.1.4.1.Q</td>
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## Grade 2

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<tr>
<th>Language Arts 2A Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Unit 1: Exploration</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Apply decoding and context strategies to read unknown words.</td>
<td>CC.1.1.2.D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Build reading vocabulary</td>
<td>CC.1.2.2.F, CC.1.2.2.J, CC.1.2.2.K,</td>
<td></td>
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</tr>
<tr>
<td>Read about exploring while applying comprehension skills.</td>
<td>CC.1.2.2.A, CC.1.2.2.B, CC.1.2.2.C, CC.1.3.2.A, CC.1.3.2.B, CC.1.3.2.C, CC.1.3.2.F</td>
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</tr>
<tr>
<td><strong>Unit 2: Working Together</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td></td>
</tr>
<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.2.D, CC.1.1.2.E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read fiction and nonfiction selections and distinguish among different varieties of fiction and nonfiction.</td>
<td>CC.1.2.2.L, CC.1.3.2.K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply reading comprehension skills and strategies before, during, and after reading.</td>
<td>CC.1.3.2.A, CC.1.3.2.B, CC.1.3.2.C, CC.1.3.2.E, CC.1.3.2.I</td>
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<tr>
<td>Understand the characteristics of different types of nouns.</td>
<td>CC.1.4.2.L</td>
<td></td>
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</tr>
<tr>
<td>Follow the steps of the writing process to write responses to writing prompts.</td>
<td>CC.1.4.2.A, CC.1.4.2.B, CC.1.4.2.C, CC.1.4.2.D, CC.1.4.2.E, CC.1.4.2.F, CC.1.4.2.G, CC.1.4.2.H, CC.1.4.2.I, CC.1.4.2.K</td>
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</tbody>
</table>
# Language Arts 2A Units and Objectives

<table>
<thead>
<tr>
<th>Unit 3: Creative Ideas</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.2.D</td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Read fiction and nonfiction selections and distinguish among different varieties of fiction and nonfiction.</td>
<td>CC.1.2.2.L, CC.1.3.2.K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply reading comprehension skills and strategies before, during, and after reading.</td>
<td>CC.1.3.2.A, CC.1.3.2.B, CC.1.3.2.C, CC.1.3.2.E, CC.1.3.2.I</td>
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<tr>
<td>Understand the characteristics of different types of verbs.</td>
<td>CC.1.4.2.L</td>
<td></td>
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</tr>
<tr>
<td>Follow the steps of the writing process to write responses to writing prompts.</td>
<td>CC.1.4.2.A, CC.1.4.2.B, CC.1.4.2.C, CC.1.4.2.F, CC.1.4.2.E, CC.1.4.2.H, CC.1.4.2.I, CC.1.4.2.K</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit 4: Frog and Toad Are Friends</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify, build, and use contractions.</td>
<td>CC.1.3.2.I, CC.1.3.2.J</td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Learn and use new vocabulary words.</td>
<td>CC.1.3.2.A, CC.1.3.2.B</td>
<td></td>
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</tr>
<tr>
<td>Apply reading strategies to understand and relate to text.</td>
<td>CC.1.3.2.A, CC.1.3.2.B, CC.1.3.2.C, CC.1.3.2.K</td>
<td></td>
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</tr>
<tr>
<td>Complete each part of the writing process to write a story about a friend.</td>
<td>CC.1.4.2.B, CC.1.4.2.F, CC.1.4.2.M, CC.1.4.2.O</td>
<td></td>
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</tr>
<tr>
<td>Read fluently with accuracy.</td>
<td>CC.1.1.2.E</td>
<td></td>
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</tr>
<tr>
<td>Language Arts 28 Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td><strong>Unit 1: Our Changing World</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.2.D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read fiction and nonfiction selections and distinguish among different varieties of fiction and nonfiction.</td>
<td>CC.1.2.2.L, CC.1.3.2.K,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply reading comprehension skills and strategies before, during, and after reading.</td>
<td>CC.1.3.2.A, CC.1.3.2.B, CC.1.3.2.C, CC.1.3.2.E, CC.1.3.2.I, CC.1.2.2.B,</td>
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</tr>
<tr>
<td>Understand the characteristics of different types of adjectives.</td>
<td>CC.1.4.2.L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow the steps of the writing process to write responses to writing prompts.</td>
<td>CC.1.4.2.A, CC.1.4.2.B, CC.1.4.2.C, CC.1.4.2.F, CC.1.4.2.E, CC.1.4.2.H, CC.1.4.2.l, CC.1.4.2.K,</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 2: Amelia Bedelia and the Cat</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Decode words with the sound /ou/ in printed text.</td>
<td>CC.1.1.2.D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand and use homophones correctly in sentences.</td>
<td>CC.1.3.2.I</td>
<td></td>
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</tr>
<tr>
<td>Describe idioms and their meanings.</td>
<td>CC.1.3.2.J</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retell and relate to a story</td>
<td>CC.1.3.2.A, CC.1.3.2.C</td>
<td></td>
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</tr>
<tr>
<td>Write a paragraph</td>
<td>CC.1.4.2.B, CC.1.4.2.F, CC.1.4.2.G, CC.1.4.2.M, CC.1.4.2.O, CC.1.4.2.T</td>
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</tr>
</tbody>
</table>
## Units and Objectives

### Unit 3: Responsibility

**Estimated Instructional Time:** 4-5 Weeks

- **Instructional Activities:** Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

<table>
<thead>
<tr>
<th>Activity</th>
<th>PA Language Arts Standards Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.2.D</td>
</tr>
<tr>
<td>Read fiction and nonfiction selections and distinguish among different varieties of fiction and nonfiction.</td>
<td>CC.1.2.2.L, CC.1.3.2.K</td>
</tr>
<tr>
<td>Apply reading comprehension skills and strategies before, during, and after reading.</td>
<td>CC.1.3.2.A, CC.1.3.2.B, CC.1.3.2.C, CC.1.3.2.E, CC.1.3.2.I, CC.1.2.2.B</td>
</tr>
<tr>
<td>Understand the characteristics of pronouns and contractions.</td>
<td>CC.1.4.2.L</td>
</tr>
<tr>
<td>Follow the steps of the writing process to write responses to writing prompts.</td>
<td>CC.1.4.2.A, CC.1.4.2.B, CC.1.4.2.C, CC.1.4.2.F, CC.1.4.2.E, CC.1.4.2.H, CC.1.4.2.I, CC.1.4.2.K</td>
</tr>
</tbody>
</table>

### Unit 4: Traditions

**Estimated Instructional Time:** 4-5 Weeks

- **Instructional Activities:** Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

<table>
<thead>
<tr>
<th>Activity</th>
<th>PA Language Arts Standards Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply knowledge of letter-sound patterns and word structure to read and spell words correctly.</td>
<td>CC.1.1.2.D</td>
</tr>
<tr>
<td>Read fiction and nonfiction selections, focusing on realistic fiction and narrative nonfiction.</td>
<td>CC.1.2.2.L, CC.1.3.2.K</td>
</tr>
<tr>
<td>Apply reading comprehension skills and strategies before, during, and after reading.</td>
<td>CC.1.3.2.A, CC.1.3.2.B, CC.1.3.2.C, CC.1.3.2.E, CC.1.3.2.I, CC.1.2.2.B</td>
</tr>
<tr>
<td>Language Arts 2B Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
</tr>
<tr>
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</tr>
<tr>
<td>Understand and apply standard writing conventions for punctuation and capitalization.</td>
<td>CC.1.4.2.L</td>
</tr>
<tr>
<td>Follow the steps of the writing process to write responses to a variety of prompts.</td>
<td>CC.1.4.2.A, CC.1.4.2.B, CC.1.4.2.C, CC.1.4.2.F, CC.1.4.2.E, CC.1.4.2.H, CC.1.4.2.I, CC.1.4.2.K,</td>
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</table>

**GRADE 3**

<table>
<thead>
<tr>
<th>Language Arts 3A Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Dollars and Sense</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Apply reading comprehension skills and strategies before, during, and after reading</td>
<td>CC.1.2.3.A, CC.1.2.3.D, CC.1.2.3.E, CC.1.2.3.G, CC.1.3.3.A, CC.1.3.3.B, CC.1.3.3.C, CC.1.3.3.F</td>
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</tr>
<tr>
<td>Language Arts 3A Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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</tr>
<tr>
<td>Learn and follow steps of the writing process to create paragraph-length compositions in a variety of writing modes.</td>
<td>CC.1.4.3.B, CC.1.4.3.C, CC.1.4.3.D, CC.1.4.3.F, CC.1.4.3.K, CC.1.4.3.M, CC.1.4.3.N, CC.1.4.3.E</td>
<td></td>
<td></td>
<td>E03.C.1, E03.C.1.2.1, E03.C.1.2.2, E03.C.1.2.4, E03.C.1.3.1, E03.D.1, E03.D.1.2.3, E03.D.1.2.5, E03.D.1.2.6, E03.D.2, E03.D.2.1.1</td>
</tr>
<tr>
<td>Understand parts of a sentence and use different sentence types correctly in writing.</td>
<td>CC.1.4.3.R, CC.1.4.3.K</td>
<td></td>
<td></td>
<td>E03.D.2, E03.D.2.1.1</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.3.D</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 2: Smart Solutions</strong></td>
<td></td>
<td><strong>4-5 Weeks</strong></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Follow the steps of the writing process to create paragraph-length compositions in a variety of writing modes, including the expository mode.</td>
<td>CC.1.4.3.B, CC.1.4.3.C, CC.1.4.3.D, CC.1.4.3.F, CC.1.4.3.K, CC.1.4.3.A</td>
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<td></td>
<td>E03.C.1, E03.C.1.2.1, E03.C.1.2.2, E03.C.1.2.3, E03.C.1.2.4, E03.D.1, E03.D.1.2.4, E03.D.1.2.5, E03.D.1.2.6, E03.D.2, E03.D.2.1.1</td>
</tr>
<tr>
<td>Understand the characteristics of nouns and use nouns correctly in writing.</td>
<td>CC.1.4.3.R</td>
<td></td>
<td></td>
<td>E03.D.1, E03.D.1.1.1, E03.D.1.1.2,</td>
</tr>
<tr>
<td>Language Arts 3A Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.3.D</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 3: People and Nature</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.3.L, CC.1.3.3.K</td>
<td></td>
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</tr>
<tr>
<td>Follow the steps of the writing process to create multiple-paragraph compositions in a variety of writing modes.</td>
<td>CC.1.4.3.B, CC.1.4.3.C, CC.1.4.3.D, CC.1.4.3.F, CC.1.4.3.K, CC.1.4.3.M, CC.1.4.3.N, CC.1.4.3.A</td>
<td></td>
<td></td>
<td>E03.C.1, E03.C.1.2.1, E03.C.1.2.2, E03.C.1.2.3, E03.C.1.2.4, E03.C.1.3.1, E03.D.1, E03.D.1.2.5, E03.D.1.2.6, E03.D.2, E03.D.2.1.1</td>
</tr>
<tr>
<td>Understand the characteristics of verbs and use verbs correctly in writing.</td>
<td>CC.1.4.3.R</td>
<td></td>
<td></td>
<td>E03.D.1, E03.D.1.1.1, E03.D.1.1.4,</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.3.D</td>
<td></td>
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<tr>
<td>Language Arts 3B Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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<tr>
<td><strong>Unit 1: One of a Kind</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>E03.A-K.1, E03.A-K.1.1.1, E03.A-K.1.1.2, E03.A-K.1.1.3, E03.A-V.4, E03.A-V.4.1.1, E03.B-K.1, E03.B-K.1.1.1, E03.B-C.2,E03B-C.2.1.1, E03.B-C.2.1.2, E03.B-C.3, E03.B-C.3.1.3</td>
</tr>
</tbody>
</table>

**Read fiction and nonfiction selections in a variety of genres.**

CC.1.2.3.A, CC.1.3.3.K

**Apply reading comprehension skills and strategies before, during, and after reading.**

CC.1.2.3.A, CC.1.2.3.D, CC.1.2.3.E, CC.1.2.3.G, CC.1.3.3.A, CC.1.3.3.B, CC.1.3.3.C, CC.1.3.3.F,


**Follow the steps of the writing process to create paragraph-length compositions in a variety of writing modes, including prose and poetry.**

CC.1.4.3.B, CC.1.4.3.C, CC.1.4.3.D, CC.1.4.3.F, CC.1.4.3.K, CC.1.4.3.M, CC.1.4.3.N, CC.1.4.3.A

E03.C.1, E03.C.1.2.1, E03.C.1.2.2, E03.C.1.2.3, E03.C.1.2.4, E03.C.1.3.1, E03.D.1, E03.D.1.2.5, E03.D.1.2.6

**Understand the characteristics of pronouns, contractions, and prepositions and use them correctly in writing.**

CC.1.4.3.R

E03.D.1, E03.D.1.1.1

**Apply knowledge of letter patterns and word structure to spell words correctly.**

CC.1.1.3.D
<table>
<thead>
<tr>
<th>Language Arts 3B Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 2: Cultures</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>E03.A-K.1, E03.A-K.1.1.1, E03.A-K.1.1.2, E03.A-K.1.1.3, E03.A-C.3, E03.A-C.3.1.1</td>
</tr>
<tr>
<td>Read fiction selections to expand knowledge of other cultures.</td>
<td>CC.1.3.3.K</td>
<td></td>
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</tr>
<tr>
<td>Follow steps in the writing process to create compositions including an advertisement and opinion piece.</td>
<td>CC.1.4.3.B, CC.1.4.3.C, CC.1.4.3.D, CC.1.4.3.F, CC.1.4.3.G, CC.1.4.3.H, CC.1.4.3.E, CC.1.4.3.I</td>
<td></td>
<td></td>
<td>E03.C.1, E03.C.1.1.1, E03.C.1.1.2, E03.C.1.2.1, E03.C.1.2.2, E03.D.1, E03.D.1.2.5, E03.D.1.2.6, E03.D.2, E03.D.2.1.1</td>
</tr>
<tr>
<td>Understand the characteristics of adjectives, articles, adverbs, and conjunctions.</td>
<td>CC.1.4.3.R</td>
<td></td>
<td></td>
<td>E03.D.1, E03.D.1.1.1, E03.D.1.1.7, E03.D.1.1.1.1</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.3.D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 3: Freedom</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>E03.A-K.1, E03.A-K.1.1.1, E03.A-K.1.1.2, E03.A-K.1.1.3, E03.A-C.3, E03.A-C.3.1.1</td>
</tr>
</tbody>
</table>
### Language Arts 3B Units and Objectives

<table>
<thead>
<tr>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CC.1.2.3.L, CC.1.3.3.K</td>
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<tr>
<td>Apply reading comprehension skills and strategies before, during, and after reading.</td>
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<tr>
<td>Follow the steps of the writing process to create compositions in a variety of writing modes, including taking notes and writing good paragraphs.</td>
<td></td>
<td></td>
<td>E03.C.1, E03.C.1.2.1, E03.C.1.2.2, E03.C.1.2.3, E03.C.1.2.4, E03.D.1, E03.D.1.2.5, E03.D.1.2.6, E03.D.2, E03.D.2.1.1</td>
</tr>
<tr>
<td>Understand the characteristics of capital letters, commas, and sentences.</td>
<td></td>
<td></td>
<td>E03.D.1, E03.D.1.2.1, E03.D.1.2.3</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
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<td>CC.1.1.3.D</td>
</tr>
</tbody>
</table>

### Grade 4

<table>
<thead>
<tr>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: This Land is Your Land</strong></td>
<td><strong>4-5 Weeks</strong></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.4.L</td>
<td></td>
</tr>
<tr>
<td>Language Arts 4A Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
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</tr>
<tr>
<td>Understand and use different sentence types correctly in writing.</td>
<td>CC.1.4.4.C, CC.1.4.4.F</td>
<td></td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.4.D</td>
<td></td>
</tr>
</tbody>
</table>

**Unit 2: Work and Play**

Read fiction and nonfiction selections in a variety of genres. | CC.1.2.4.L | 4-5 Weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |

<table>
<thead>
<tr>
<th>Language Arts 4A Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn and follow the steps of the writing process to create compositions in a variety of writing modes.</td>
<td>CC.1.4.4.A, CC.1.4.4.B, CC.1.4.4.C, CC.1.4.4.D, CC.1.4.4.F, CC.1.4.4.I, CC.1.4.4.J, CC.1.4.4.U, CC.1.4.4.X, CC.1.4.4.E</td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>E04.C.1, E04.C.1.1.1, E04.C.1.2.1, E04.C.1.2.2, E04.D.1.1.6, E04.D.1.2.4, E04.D.2, E04.D.2.1.1</td>
</tr>
<tr>
<td>Understand the characteristics of nouns and use nouns correctly in writing.</td>
<td>CC.1.4.4.R</td>
<td></td>
<td></td>
<td>E04.D.1, E04.D.1.1.1</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.4.D</td>
<td></td>
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<tr>
<td><strong>Unit 3: Patterns in Nature</strong></td>
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<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.4.L</td>
<td></td>
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</tr>
<tr>
<td>Language Arts 4A Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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</tr>
<tr>
<td>Understand the characteristics of verbs and use verbs correctly in writing.</td>
<td>CC.1.4.4.R</td>
<td></td>
<td></td>
<td>E04.D.1.1.2,</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.4.D</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Language Arts 4B Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Puzzles and Mysteries</strong></td>
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<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.4.L</td>
<td></td>
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</tr>
<tr>
<td>Learn and follow the steps of the writing process to create compositions in a variety of writing modes, including the expository mode.</td>
<td>CC.1.4.4.A, CC.1.4.4.B,</td>
<td></td>
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<td></td>
<td>CC.1.4.4.C, CC.1.4.4.D,</td>
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<td></td>
<td>CC.1.4.4.F, CC.1.4.4.I,</td>
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<td></td>
<td>CC.1.4.4.J, CC.1.4.4.U,</td>
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<td></td>
<td>CC.1.4.4.E</td>
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<tr>
<td>Understand the characteristics of pronouns and use pronouns correctly in writing.</td>
<td>CC.1.4.4.R</td>
<td></td>
<td></td>
<td>E04.D.1, E04.D.1.1.1,</td>
</tr>
<tr>
<td>Language Arts 48 Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.4.D</td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 2: Adventures by Land, Air, and Water</strong></td>
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<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.4.L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the characteristics of modifiers, including comparative and superlative modifiers, and use them correctly in writing.</td>
<td>CC.1.4.4.R</td>
<td></td>
<td></td>
<td>E04.D.1,</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure, including Greek and Latin word parts, to spell words correctly.</td>
<td>CC.1.1.4.D</td>
<td></td>
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</tr>
<tr>
<td>Language Arts 48 Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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<tr>
<td><strong>Unit 3: Reaching for Goals</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.4.L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand writing conventions, including conventions for punctuation and capitalization, and apply this knowledge when writing.</td>
<td>CC.1.4.4.R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.4.D</td>
<td></td>
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</tbody>
</table>

Appendix A.5 Alignments – English Language Arts K-12
### Grade 5

<table>
<thead>
<tr>
<th>Language Arts 5A Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Meeting Challenges</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>E05.A-K.1, E05.A-K.1.1.2, E05.B-K.1.1, E05B-K.1.1.1, E05.B-K.1.1.2, E05.B-C.2, E05.B-C.2.1.2</td>
</tr>
<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.5.L, CC.1.3.5.K</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learn and follow the steps of the writing process to create compositions in a variety of writing modes.</td>
<td>CC.1.4.5.M, CC.1.4.5.N, CC.1.4.5.O, CC.1.4.5.Q, CC.1.4.5.S, CC.1.4.5.R</td>
<td></td>
<td></td>
<td>E05.C.1, E05.C.1.1.1, E05.C.1.1.2, E05.C.1.1.4, E05.C.1.1.5, E05.C.1.3.3, E05.C.1.3.1, E05.C.1.3.2, E05.D.2, E05.D.2.1.1, E05.D.2.1.2, E05.E.1, E05.1.1.2, E05.D.1.1.6</td>
</tr>
<tr>
<td>Understand and use different sentence types correctly in writing.</td>
<td>CC.1.4.5.F, CC.1.4.5.E, CC.1.4.5.K</td>
<td></td>
<td></td>
<td>E05.C.1, E05.C.1.1.4, E05.C.12.4, E05.D.1, E05.D.1.1.6</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.5.D</td>
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</tbody>
</table>
### Unit 2: Doing the Right Thing

<table>
<thead>
<tr>
<th>Language Arts 5A Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn and follow the steps of the writing process to create compositions in a variety of writing modes.</td>
<td>CC.1.4.5.B, CC.1.4.5.C, CC.1.4.5.F, CC.1.4.5.E, CC.1.4.5.G, CC.1.4.5.H, CC.1.4.5.A, CC.1.4.5.P</td>
<td></td>
<td></td>
<td>E05.C.1, E05.C.1.1.1, E05.C.1.2.1, E05.C.1.2.2, E05.C.1.2.5, E05.C.1.3.3, E05.D.1, E05.D.1.1.6, E05.D.1.1.8, E05.D.1.2.1, E05.D.1.2.5, E05.D.2, E05.D.2.1.1, E05.E.1.1, E05.E.1.1.1</td>
</tr>
<tr>
<td>Understand the characteristics of nouns and verbs and use them correctly in writing.</td>
<td>CC.1.4.5.F</td>
<td></td>
<td></td>
<td>E05.D.1, E05.D.1.1.3, E05.D.1.1.4,</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.5.D</td>
<td></td>
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<tr>
<td>Language Arts 5A Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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</tr>
<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.5.L, CC.1.3.5.K</td>
<td></td>
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</tr>
<tr>
<td>Follow the steps of the writing process to create compositions in a variety of writing modes.</td>
<td>CC.1.4.5.B, CC.1.4.5.C, CC.1.4.5.F, CC.1.4.5.E, CC.1.4.5.A</td>
<td></td>
<td></td>
<td>E05.C.1, E05.C.1.2.1, E05.C.1.2.2, E05.C.1.2.5, E05.D.2, E05.D.2.1.1, E05.E.1, E05.E.1.1.1, E05.E.1.1.2, E05.E.1.1.5</td>
</tr>
<tr>
<td>Understand the characteristics of verbs and prepositional phrases and use them correctly in writing.</td>
<td>CC.1.4.5.F</td>
<td></td>
<td></td>
<td>E05.D.1, E05.D.1.1.3, E05.D.1.1.4,</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.5.D</td>
<td></td>
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</tr>
<tr>
<td>Language Arts 5B Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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</tr>
<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.5.L, CC.1.3.5.K</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow the steps of the writing process to create compositions in a variety of writing modes.</td>
<td>CC.1.4.5.A, CC.1.4.5.B, CC.1.4.5.C, CC.1.4.5.F, CC.1.4.5.K, CC.1.4.5.M, CC.1.4.5.O, CC.1.4.5.S, CC.1.4.5.T, CC.1.4.5.X</td>
<td></td>
<td></td>
<td>E05.C.1, E05.C.1.1.4, E05.C.1.2.1, E05.C.1.2.2, E05.C.1.3.3, E05.D.1, E05.D.1.1.1, E05.D.1.2.1, E05.D.2, E05.D.2.1.1, E05.E.1, E05.E.1.1.1, E05.E.1.1.2, E05.E.1.1.5</td>
</tr>
<tr>
<td>Understand the characteristics of pronouns and use them correctly in writing.</td>
<td>CC.1.4.5.F</td>
<td></td>
<td></td>
<td>E05.D.1, E05.D.1.1.8</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.5.D</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Language Arts 58 Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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<tr>
<td><strong>Unit 2: Adventurers</strong></td>
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</tr>
<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.5.L, CC.1.3.5.K</td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Follow the steps of the writing process to create compositions in a variety of writing modes.</td>
<td>CC.1.4.5.A, CC.1.4.5.B, CC.1.4.5.C, CC.1.4.5.F, CC.1.4.5.E, CC.1.4.5.G, CC.1.4.5.H, CC.1.4.5.I, CC.1.4.5.K</td>
<td>E05.C.1, E05.C.1.1.4, E05.C.1.2.1, E05.C.1.2.2, E05.C.1.2.5, E05.D.1, E05.D.1.1.1, E05.D.1.2.1, E05.D.2, E05.D.2.1.1, E05.E.1, E05.E.1.1.1, E05.E.1.1.2, E05.E.1.1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the characteristics of contractions, adjectives, articles, and adverbs and use them correctly in writing.</td>
<td>CC.1.4.5.F</td>
<td></td>
<td></td>
<td>E05.D.1</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.5.D</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Language Arts 58 Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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</tr>
<tr>
<td><strong>Unit 3: The Unexpected</strong></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>E05.A-K.1, E05.A-K.1.1.1, E05.A-K.1.1.2, E05.B-K.1, E05.B-K.1.1.1, E05.B-K.1.1.2, E05.B-K.1.1.3, E05.B-C.2, E05.B-C.2.1.2</td>
</tr>
<tr>
<td>Read fiction and nonfiction selections in a variety of genres.</td>
<td>CC.1.2.5.L, CC.1.3.5.K</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow the steps of the writing process to create compositions in a variety of writing modes.</td>
<td>CC.1.4.5.A, CC.1.4.5.B, CC.1.4.5.C, CC.1.4.5.D, CC.1.4.5.E, CC.1.4.5.G, CC.1.4.5.H, CC.1.4.5.I, CC.1.4.5.R</td>
<td></td>
<td></td>
<td>E05.C.1, E05.C.1.1.1, E05.C.1.1.2, E05.C.1.2.1, E05.C.1.2.2.E05.D.1, E05.D.1.2.5, E05.D.2, E05.D.2.1.1, E05.E.1, E05.E.1.1.1, E05.E.1.1.2, E04.D.1.1.4, E05.D.1.1.5</td>
</tr>
<tr>
<td>Understand the characteristics of commas, quotation marks, and other punctuation marks.</td>
<td>CC.1.4.5.F</td>
<td></td>
<td></td>
<td>E05.D.1, E05.D.1.1.6, E05.D.1.2.1, E05.D.1.2.2, E05.D.1.2.3,</td>
</tr>
<tr>
<td>Apply knowledge of letter patterns and word structure to spell words correctly.</td>
<td>CC.1.1.5.D</td>
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## Grade 6

<table>
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<tr>
<th>Language Arts 6A Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
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<tbody>
<tr>
<td>Unit 1: MSLA Course Overview: Getting Started in Middle School Language Arts</td>
<td></td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Language Arts 6A Units and Objectives</td>
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<tr>
<td><strong>Unit 3: Life Stories</strong></td>
<td></td>
<td><strong>5-6 weeks</strong></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Language Arts 6A Units and Objectives</td>
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<tr>
<td>Read, analyze, and connect an independent reading to text to other literature and your personal experiences.</td>
<td>CC.1.3.6.H, CC.1.3.6.K, CC.1.2.6.L</td>
<td>E06.A-C.3.1, E06.A-C.3.1.1</td>
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<td>Language Arts 6A Units and Objectives</td>
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<td>K.1.1.3, E06.A-C.2.1.1, E06.A-C.2.1.2, E06.A-C.2.1.3</td>
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<th>Language Arts 6B Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
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<th>Instructional Activities</th>
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<tr>
<td>Unit 1: MSLA Course Overview: Getting Started with Middle School Language Arts</td>
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<tr>
<td>Unit 2: Rhythm and Rhyme</td>
<td>CC.1.3.6.I, CC.1.3.6.F</td>
<td>5-6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>E06.A-C.2.1.1, E06.A-C.2.1.1, E06.A-C.2.1.2, E06.A-C.2.1.3, E06.A-V.4.1, E06.A-V.4.1.1, E06.A-V.4.1.2,</td>
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<tr>
<td>Use context clues; analyze rhythm and rhyme, paraphrase; analyze forms of poetry; analyze imagery.</td>
<td>CC.1.3.6.I, CC.1.3.6.F</td>
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<td>Identify adjectives and adverbs; use conjunctions and interjections; use coordinating conjunctions.</td>
<td>CC.1.4.6.F</td>
<td></td>
<td></td>
<td>E06.D.1.1.1, E06.D.1.1.1, E06.D.1.1.2, E06.D.1.1.3, E06.D.1.1.4, E06.D.1.1.5, E06.D.1.1.6, E06.D.1.1.7, E06.D.1.1.8</td>
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<td>Read, analyze, and connect an independent reading to text to other literature and your personal experiences.</td>
<td>CC.1.3.6.H, CC.1.3.6.K, CC.1.2.6.L</td>
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<td>E06.A-C.3.1, E06.A-C.3.1.1</td>
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<tr>
<td>Summarize, compare and contrast to analyze author's purpose.</td>
<td>CC.1.3.6.D, CC.1.3.6.B</td>
<td>5-6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>E06.A-K.1.1, E06.A-K.1.1.1, E06.A-K.1.1.2, E06.A-K.1.1.3, E06.A-C.2.1.1, E06.A-C.2.1.2, E06.A-C.2.1.3</td>
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<tr>
<td>Identify and use prepositions and prepositional phrases, identify and use</td>
<td>CC.1.4.6.F</td>
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<td>E06.D.1.1, E06.D.1.1.1, E06.D.1.1.2, E06.D.1.1.3,</td>
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<tr>
<td>appositives and appositive phrases, revise writing using participles.</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers</td>
<td>E06.D.1.1.4, E06.D.1.1.5,</td>
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<td></td>
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<td></td>
<td>and with other students through a combination of phone calls, WebMail messages, LiveLesson®</td>
<td>E06.D.1.1.6, E06.D.1.1.7,</td>
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<td></td>
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<td>(virtual classroom) sessions, message boards, discussion boards, teacher virtual office</td>
<td>E06.D.1.1.8</td>
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<td>hours, face-to-face interaction, and the daily review of assignments via the electronic</td>
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<td>grade book.</td>
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<td>CC.1.4.6.W, CC.1.4.6.X, CC.1.5.6.D, CC.1.5.6.E,</td>
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<td>CC.1.5.6.G</td>
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<tr>
<td>Read, analyze, and connect an independent reading to text to other literature and your personal</td>
<td>CC.1.3.6.H, CC.1.3.6.K, CC.1.2.6.L</td>
<td></td>
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<td>E06.A-C.3.1, E06.A-C.3.1.1</td>
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<td>experiences.</td>
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<tr>
<td>Unit 4: Walk Two Moons</td>
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<td>2-3 Weeks</td>
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<td>the text.</td>
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<td>E06.A-K.1.3, E06.A-C.2.1, E06.A-C.2.1.1,</td>
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<td>E06.A-C.2.1.1, E06.A-C.2.1.2, E06.A-C.2.1.3</td>
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## Language Arts 6B Units and Objectives

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<tr>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
</table>

## Grade 7

### Language Arts 7A Units and Objectives

<p>| Unit 1: MSLA Course Overview: Getting Started in Middle School Language Arts | CC.1.3.7.B, CC.1.3.7.C, CC.1.3.7.D, CC.1.3.7.A | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |</p>
<table>
<thead>
<tr>
<th>Language Arts 7A Units and Objectives</th>
<th>PA Language Arts Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read, analyze, and connect an independent reading text to other literature and your personal experiences</td>
<td>CC.1.3.7.K, CC.1.2.7.L, CC.1.3.7.H</td>
<td></td>
<td></td>
<td>E07.A-C.3.1, E07.A-C.3.1.1</td>
</tr>
<tr>
<td>Unit 3: Exploring Ideas</td>
<td></td>
<td>5-6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Language Arts 7A Units and Objectives</td>
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<tr>
<td>Read, analyze, and connect an independent reading text to other literature and your personal experiences</td>
<td>CC.1.2.7.L, CC.1.3.7.K</td>
<td></td>
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</tbody>
</table>

Unit 4: The Watsons Go To Birmingham

Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.
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</thead>
<tbody>
<tr>
<td>Determine how authors use historical events as a basis to create fictional narratives.</td>
<td>CC.1.3.7.H</td>
<td></td>
<td></td>
<td>E07.A-C.3.1, E07.A-C.3.1.1</td>
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<tr>
<td>Language Arts 7B Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
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<tr>
<td><strong>Unit 1: MSLA Course Overview: Getting Started with Middle School Language Arts</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 2: Sounds and Ideas</strong></td>
<td>CC.1.3.7.A, CC.1.3.7.B, CC.1.3.7.E, CC.1.3.7.F</td>
<td>5-6 weeks</td>
<td></td>
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<tr>
<td>Language Arts 7B Units and Objectives</td>
<td>PA Language Arts Standards Addressed</td>
<td>Estimated Instructional Time</td>
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</tr>
<tr>
<td>Read, analyze, and connect an independent reading text to other literature and your personal experiences</td>
<td>CC.1.2.7.L, CC.1.3.7.K</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>E07.D.2.1.5, E07.E.1.1.1, E07.E.1.1.1, E07.E.1.1.2, E07.E.1.1.3, E07.E.1.1.4, E07.E.1.1.5, E07.E.1.1.6</td>
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<tr>
<td>Read, analyze, and connect an independent reading text to other literature and your personal experiences</td>
<td>CC.1.3.7.K, CC.1.2.7.L, CC.1.3.7.H</td>
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<td></td>
<td>E07.A-C.3.1, E07.A-C.3.1.1</td>
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**Unit 4: Dragonwings**

### Grade 7

<table>
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<tr>
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<th>PA Language Arts Standards Addressed</th>
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<tbody>
<tr>
<td>Determine how authors use historical events as a basis to create fictional narratives.</td>
<td>CC.1.3.7.H</td>
<td></td>
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<td>E07.A-C.3.1, E07.A-C.3.1.1</td>
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### Grade 8

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<tr>
<th>English 9 Units and Objectives</th>
<th>PA English Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
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<tr>
<td>English 9 Units and Objectives</td>
<td>PA English Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td>English 9 Units and Objectives</td>
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<tr>
<td><strong>Facts and Visions</strong></td>
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<td>5-6 Weeks                                                                💪</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Distinguish among perfect tenses of verbs; distinguish among verb moods</td>
<td>CC.1.5.8.G</td>
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<tr>
<td>Predict, define, and accurately use academic vocabulary words related to information</td>
<td>CC.1.5.8.G</td>
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<tr>
<td>English 9 Units and Objectives</td>
<td>PA English Standards Addressed</td>
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<th>PA English Standards Addressed</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
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<td>Language Arts 8 Units and Objectives</td>
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<tr>
<td><strong>Voices in Verse</strong></td>
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<td>5-6 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Dialogue and Discovery</td>
<td>Identify cause and effect; draw conclusions; analyze elements of drama, analyze action and conflict, character’s motivation, and setting; compare adaptations to originals</td>
<td>CC.1.5.8.A, CC.1.5.8.C, CC.1.5.8.B, CC.1.5.8.D, CC.1.5.8.F, CC.1.5.8.E</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Language Arts 8B Units and Objectives</td>
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<td>Language Arts 88 Units and Objectives</td>
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<tr>
<td><strong>The Giver</strong></td>
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<tr>
<td><strong>CC.1.5.8.E</strong></td>
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<tr>
<td><strong>2-3 Weeks</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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## Grade 9

<table>
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<th>PA English Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<td><strong>Growing Up</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Apply a variety of active reading strategies</td>
<td>CC.1.3.9-10.F, CC.1.3.9-10.I, CC.1.2.9-10.F, CC.1.2.9-10.K</td>
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<td>Learn and apply strategies for developing vocabulary</td>
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<td>Learn elements of grammar, usage, and style, focusing on the parts of speech</td>
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<td>Use the writing process to compose a personal narrative</td>
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<td>The Forces of Nature</td>
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<td>3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Apply a variety of active reading strategies for understanding nonfiction</td>
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<td>Learn elements of grammar, usage, and style, focusing on the sentence base</td>
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<td>Analyze relationships between and among characters, setting, and events</td>
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<td>Define new vocabulary and identify words in context</td>
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<td><strong>Other Worlds</strong></td>
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<td>Crossing Borders</td>
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<td>2-3 Weeks</td>
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<td>Learn elements of grammar, usage, and style, focusing on phrases and clauses</td>
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<td>4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Understand and analyze characteristics of</td>
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<td>the epic poetic genre</td>
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<td>Review strategies for learning new</td>
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<td>Learn elements of grammar, usage, and</td>
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<td>style, focusing on pronouns</td>
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<td>Write a summary</td>
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<td><strong>Romeo and Juliet</strong></td>
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<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Identify and analyze dramatic elements</td>
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<td>Develop and apply effective comprehension strategies</td>
<td>CC.1.3.9-10.F, CC.1.3.9-10.I, CC.1.2.9-10.F, CC.1.2.9-10.J, CC.1.2.9-10.K</td>
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<tr>
<td>Analyze relationships between and among characters, setting, and events</td>
<td>CC.1.3.9-10.C, CC.1.3.9-10.F, CC.1.3.9-10.I</td>
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<td>Define new vocabulary and identify words in context</td>
<td>CC.1.3.9-10.F, CC.1.3.9-10.I, CC.1.2.9-10.F, CC.1.2.9-10.J, CC.1.2.9-10.K</td>
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<td>The Research Paper</td>
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<td>Formulate original research questions and conduct research using a variety of primary and secondary sources</td>
<td>CC.1.4.9-10.A, CC.1.4.9-10.D, CC.1.4.9-10.V, CC.1.4.9-10.W</td>
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<td>4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Apply reading strategies, including skimming and scanning, to conduct a critical evaluation of sources and to understand the use of text features in identifying research resources</td>
<td>CC.1.4.9-10.V, CC.1.4.9-10.W</td>
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<tr>
<td>Use effective note-taking and outlining strategies to summarize, paraphrase, synthesize, and organize information</td>
<td>CC.1.4.9-10.V, CC.1.4.9-10.W</td>
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<tr>
<td>Write a research paper, based on an original thesis statement, that is appropriate to its purpose, and develop a multimedia presentation based on that research paper</td>
<td>CC.1.4.9-10.A, CC.1.4.9-10.A, CC.1.4.9-10.D, CC.1.4.9-10.B, CC.1.4.9-10.E, CC.1.4.9-10.U, CC.1.4.9-10.S, CC.1.4.9-10.X, CC.1.5.9-10.A, CC.1.5.9-10.C</td>
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<td>Revise and edit a research paper for focus, organization, correctness, voice, and idea development, and use feedback to edit and revise the research paper</td>
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<td><strong>The Dark Side</strong></td>
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<td>Apply a variety of active reading strategies</td>
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<td>Learn elements of grammar, usage, and style, focusing on subject-verb agreement, adjectives, and adverbs</td>
<td>CC.1.3.9-10.F, CC.1.3.9-10.I, CC.1.2.9-10.F, CC.1.2.9-10.J, CC.1.2.9-10.K</td>
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## Grade 10

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<td>The literature of the Americas</td>
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<td>2 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Create writing samples that demonstrate understanding of various literary works</td>
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<td>Apply different study skills to master variety of skills and activities</td>
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<td>Review and apply knowledge of different parts of speech</td>
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<td>The literature of the Americas II</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Create a compare and contrast essay</td>
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<td>Apply different study skills to master variety of skills and activities</td>
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<td>Identify parts of a sentence and common sentence errors</td>
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<td><strong>Adventures of Huckleberry Finn</strong></td>
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<td><strong>2 Weeks</strong></td>
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<td>Develop and apply effective comprehension strategies</td>
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<td>Identify grammatical phrases</td>
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<td>Identify clauses and kinds of sentence structures</td>
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<td><strong>Africa</strong></td>
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<td>Apply different study skills to master a</td>
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<td>variety of skills and activities</td>
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<td>Identify and use verb forms correctly</td>
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<td><strong>Use end marks and commas correctly</strong> CC.1.2.9-10.F, CC.1.2.9-10.J, CC.1.2.9-10.K</td>
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<td><strong>Analyze persuasive techniques</strong> CC.1.2.9-10.C, CC.1.2.9-10.E, CC.1.2.9-10.D, CC.1.2.9-10.H, CC.1.5.9-10.A</td>
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<td><strong>Compare a subject in two mediums</strong> CC.1.3.9-10.G</td>
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<td><strong>Middle East and South Asia I</strong></td>
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<td>3 Weeks</td>
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<td>Practice vocabulary-building strategies</td>
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<td>Construct a research proposal</td>
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<td>Practice vocabulary-building strategies</td>
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<td>Identify and use subject-verb agreement correctly</td>
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<td>Analyze literary elements</td>
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<td><strong>Read literature from the Middle East and South Asia</strong></td>
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<td><strong>East Asia and the Pacific Rim</strong></td>
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<td><strong>Use the writing process to write a literary analysis</strong></td>
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<td><strong>Support a literary analysis with textual evidence</strong></td>
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<td><strong>Use quotations, italics, semi-colons, colons, dashes, brackets, and ellipses correctly</strong></td>
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<td><strong>The Importance of Being Earnest</strong></td>
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<td>Analyze the influence of Victorian culture on the play</td>
<td>CC.1.3.9-10.B, CC.1.3.9-10.A, CC.1.3.9-10.E, CC.1.4.9-10.V, CC.1.4.9-10.W</td>
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<td>Apply the characteristics of Restoration comedy to the play</td>
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<td><strong>The Research Paper</strong></td>
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<td>4 Weeks</td>
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## English 10B Units and Objectives

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<th>Instructional Activities</th>
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<th>PA Ecology Standards Addressed</th>
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<th>Instructional Activities</th>
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<tr>
<td>Find and research reliable sources to write a research paper</td>
<td>CC.1.4.9-10.A, CC.1.4.9-10.D, CC.1.4.9-10.V, CC.1.4.9-10.W</td>
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<td>Follow a style guide to publish a paper</td>
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<td>Use adjectives and adverbs correctly</td>
<td>CC.1.4.9-10.L</td>
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<td>Apply rules for correct usage</td>
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## Grade 11

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<td>Early American Colonial Literature</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>English 11 Units and Objectives</td>
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<td>Determine the denotative and connotative meanings of vocabulary words in context</td>
<td>CC.1.3.11-12.I, CC.1.2.11-12.K</td>
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<td>Determine the denotative and connotative meanings of vocabulary words in context</td>
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<td>Analyze techniques and strategies for persuasive writing</td>
<td>CC.1.5.11-12B, CC.1.5.11-12.C, CC.1.5.11-12.D, CC.1.4.11-12.S, CC1.4.11-12.T, CC1.4.11-12.V, CC1.4.11-12.W</td>
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<td>American Romanticism</td>
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<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Assess the denotative and connotative meanings of vocabulary words in context</td>
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<tr>
<td>Review types of nouns in order to identify and evaluate appositive phrases</td>
<td>CC.1.4.11-12.H</td>
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<td>4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Define vocabulary words in context</td>
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<td>Visualize stage directions</td>
<td>CC.1.3.11-12.C, C.1.3.11-12.G</td>
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<td><strong>Realism and Regionalism</strong></td>
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<td>5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Correctly use apostrophes</td>
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<td>Voices of Modernism (1920s - 1940s)</td>
<td>Identify influences of and elements in modernist writing</td>
<td>CC.1.3.11-12.A, CC.1.3.11-12.B, CC.1.3.11-12.D, CC.1.3.11-12.E</td>
<td>4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Identify types of verb forms and phrases as well as independent and subordinate clauses</td>
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<td>Read, analyze, and interpret nonfiction essays</td>
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<td>Review verb tenses and forms</td>
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<td>The Great Gatsby</td>
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<td>3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Define vocabulary words in context</td>
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<td>Compose a self-improvement plan</td>
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<td>Post War Voices Emerge (1950s-1960s)</td>
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<td>Read, analyze, and interpret postmodern poetry and prose</td>
<td>CC.1.3.11-12.A, CC.1.5.11-12.A, CC.1.3.11-12.B, CC.1.5.11-12B, CC1.3.11-12.C, CC.1.3.11-12.D, CC.1.5.11-12.D, CC.1.3.11-12.E, CC.1.3.11-12.H, CC.1.3.11-12.K,</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Review the elements of adjectival clauses</td>
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<td>Contemporary Postmodernism</td>
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<tr>
<td>Use verb tense, mood, and voice correctly to enhance writing</td>
<td>CC1.4.11-12.Q</td>
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## Grade 12

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<td><strong>The Anglo-Saxon Period: 449-1066</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Identify and analyze elements of epic poetry and lyric poetry in Anglo-Saxon literature</td>
<td>CC1.3.11-12.C, CC.1.3.11-12.I, CC.1.3.11-12.E, CC.1.3.11-12.G</td>
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<td>Compare and contrast elements of Anglo-Saxon literature</td>
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<td>Review the parts of speech</td>
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<td><strong>The Middle Ages: 1066-1485</strong></td>
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<td>Identify and analyze elements of medieval poetry, including narrative poems and epic tales</td>
<td>CC.1.3.11-12.A, CC.1.3.11-12.I, CC.1.3.11-12.E, CC.1.3.11-12.D, CC.1.3.11-12.G</td>
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<td>Identify causes and effects while analyzing the historical, social, and cultural context of the Middle Ages</td>
<td>CC.1.3.11-12.D, CC.1.3.11-12.E, CC.1.3.11-12.I</td>
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<td>Review phrases and the sentence base</td>
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<td><strong>Macbeth</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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</tr>
<tr>
<td>Follow the writing process to compose a persuasive essay</td>
<td>CC.1.4.11-12.G, CC.1.4.11-12.T, CC.1.4.11-12.X</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>The Renaissance: 1485-1660</td>
<td></td>
<td>4 Weeks</td>
<td></td>
</tr>
<tr>
<td>English 12 Units and Objectives</td>
<td>PA English Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Make generalizations about the historical, social, and cultural context of the Renaissance</td>
<td>CC.1.3.11-12.B, CC.1.3.11-12.G, CC.1.3.11-12.K,</td>
<td></td>
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</tr>
<tr>
<td>Review clauses</td>
<td>CC.1.5.11-12.G, CC.1.3.11-12.I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Restoration and the Enlightenment: 1660-1798</td>
<td></td>
<td>3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Classify information about the historical, social, and cultural context of the Restoration and the Enlightenment</td>
<td>CC.1.3.11-12.B, CC.1.3.11-12.K, CC.1.3.11-12.G,</td>
<td></td>
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<tr>
<td>English 12 Units and Objectives</td>
<td>PA English Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
</tr>
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<tr>
<td>Complete a poetry creating writing assessment, following a specific process</td>
<td>CC.1.5.11-12.G, CC1.4.11-12.T, CC.1.4.11-12.X</td>
<td></td>
<td></td>
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<tr>
<td>Review verbs</td>
<td>CC.1.5.11-12.G, CC.1.3.11-12.I</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Language Arts 12B Units and Objectives</th>
<th>PA English Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn about the historical and literary context of the Romantic period</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Review poetic elements and figures of speech</td>
<td>CC.1.3.11-12.D, CC.1.3.11-12.E, CC.1.3.11-12.G</td>
<td></td>
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<tr>
<td>Frankenstein</td>
<td></td>
<td>2 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Develop and apply effective comprehension strategies</td>
<td>CC.1.3.11-12.B, CC.1.3.11-12.I</td>
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<tr>
<td>Language Arts 12B Units and Objectives</td>
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<tr>
<td>Define new vocabulary and identify words in context</td>
<td>CC.1.3.11-12.I, CC.1.2.11-12.K</td>
<td></td>
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</tr>
<tr>
<td><strong>Writing a Research Paper</strong></td>
<td></td>
<td>4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Develop a multimedia presentation</td>
<td>CC.1.5.11-12B, CC.1.5.11-12.D, CC.1.5.11-12.E, CC.1.5.11-12.F, CC1.4.11-12.U,</td>
<td></td>
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<tr>
<td>Interpret and implement feedback</td>
<td>CC.1.5.11-12B, CC.1.5.11-12.D, CC.1.5.11-12.E, CC1.4.11-12.T,</td>
<td></td>
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<tr>
<td>Review capitalization rules</td>
<td>CC.1.5.11-12.G</td>
<td>3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td><strong>The Victorian Age (1832-1901)</strong></td>
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<tr>
<td>Review poetic elements and figures of speech</td>
<td>CC1.3.11-12.C, CC.1.3.11-12.D, CC.1.3.11-12.E,</td>
<td></td>
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<tr>
<td>Review subject-verb agreement</td>
<td>CC.1.5.11-12.G</td>
<td></td>
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<tr>
<td><strong>The Modern Era (1901-Present)</strong></td>
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<tr>
<td>Language Arts 12B Units and Objectives</td>
<td>PA English Standards Addressed</td>
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<td>Instructional Activities</td>
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<tr>
<td>Review narrative elements</td>
<td>CC.1.3.11-12.B, CC.1.3.11-12.C</td>
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</tbody>
</table>
MATHEMATICS K-12
## Kindergarten

<table>
<thead>
<tr>
<th>Math KA Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Let's Learn Math!</strong></td>
<td></td>
<td>2 days</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Understand how to find and use the Coaching Guide</td>
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<tr>
<td>Locate and describe lesson resources</td>
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<tr>
<td>Identify ways to promote mathematical thinking in your daily life</td>
<td>All PA standards could apply</td>
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<tr>
<td>Describe the different parts of a lesson</td>
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<tr>
<td>Describe the different types of assessments</td>
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<tr>
<td><strong>Unit 2: One to Five</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Represent and count the quantities 1 to 5</td>
<td>CC.2.1.K.A.1, CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify the total number of objects in a set regardless of arrangement</td>
<td>CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize and write the numerals 1 to 5</td>
<td>CC.2.1.K.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve problems by using objects</td>
<td>CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluate surroundings to create a number book</td>
<td>CC.2.1.K.A.1, CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
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</tr>
<tr>
<td><strong>Unit 3: Comparing and Ordering 0 to 5</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Recognize and compare groups of objects to identify which group has more, fewer, the same number as, as many, more, or fewer</td>
<td>CC.2.1.K.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use zero to represent a set of objects when there are none and recognize and write the numeral 0</td>
<td>CC.2.1.K.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence numbers 0 to 5</td>
<td>CC.2.1.K.A.1, CC.2.1.K.A.2, CC.2.1.K.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify ordinal positions</td>
<td>CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve problems by using objects to act out the problem</td>
<td>CC.2.1.K.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 4: Six to Ten</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Represent and count the quantities 1 to 10</td>
<td>CC.2.1.K.A.1, CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify the total number of objects in a set regardless of arrangement</td>
<td>CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize and write the numerals 6 to 10</td>
<td>CC.2.1.K.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve problems by predicting and identifying patterns</td>
<td>CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluate surroundings to create a number book</td>
<td>CC.2.1.K.A.1, CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math KA Units and Objectives</td>
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</tr>
<tr>
<td><strong>Unit 5: Comparing and Ordering Numbers 0 to 10</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Analyze two different sets of objects to determine which set is greater and which set is less</td>
<td>CC.2.1.K.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply 1 to 1 correspondence to determine quantity of a set of objects</td>
<td>CC.2.1.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyze a number 0 to 12 and identify if it is greater or less than 5 or 10</td>
<td>CC.2.1.K.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify a number that is 1 or 2 more or 1 or 2 less than another number</td>
<td>CC.2.1.K.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyze numbers from 1 to 10 and put them in the correct order</td>
<td>CC.2.1.K.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 6: Numbers to 20</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Recognize and represent with manipulatives the quantities 11 to 20</td>
<td>CC.2.1.K.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize and write the numerals 11 to 20</td>
<td>CC.2.1.K.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve problems in an ascending or descending sequence of numbers by using logical reasoning</td>
<td>CC.2.1.K.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 7: Numbers to 100</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Math KA Units and Objectives</td>
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</tr>
<tr>
<td>Recognize, count, write, and represent with manipulatives quantities to 100</td>
<td>CC.2.1.K.A.2, CC.2.1.K.A.3</td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Analyze groups of objects to estimate quantities</td>
<td>CC.2.1.K.A.3</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Count and write numbers to 100 using a hundred chart</td>
<td>CC.2.1.K.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Use a hundred chart to count by 2s and 10s</td>
<td>CC.2.1.K.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Solve problems by identifying a pattern</td>
<td>CC.2.1.K.A.2</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 8: Understanding Addition</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Evaluate joining stories using manipulatives and images to help solve the problem</td>
<td>CC.2.2.K.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Write numbers and apply the concept of altogether to the joining stories</td>
<td>CC.2.2.K.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Recognize and use the plus sign when reading and recording joining stories</td>
<td>CC.2.2.K.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Evaluate and solve addition sentences that represent joining stories</td>
<td>CC.2.2.K.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Evaluate data by drawing pictures to solve the addition problem</td>
<td>CC.2.2.K.A.1</td>
<td>1 - 2 weeks</td>
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<tr>
<td><strong>Unit 9: Understanding Subtraction</strong></td>
<td></td>
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<tr>
<td>Evaluate separating stories using manipulatives and images to help solve the problem</td>
<td>CC.2.2.K.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Write and solve subtraction sentences that represent separating stories</td>
<td>CC.2.2.K.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Recognize and use the minus sign when reading and recording separating stories</td>
<td>CC.2.2.K.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
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</tbody>
</table>
### Math KA Units and Objectives

<table>
<thead>
<tr>
<th>Math KA Units and Objectives</th>
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<tbody>
<tr>
<td>Identify an equal sign and use it to reflect the difference of the separating of two groups</td>
<td>CC.2.2.K.A.1</td>
<td></td>
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</tr>
<tr>
<td>Evaluate data by drawing pictures to solve the addition or subtraction problems</td>
<td>CC.2.2.K.A.1</td>
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</tbody>
</table>

### Math KB Units and Objectives

<table>
<thead>
<tr>
<th>Math KB Units and Objectives</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit 1: Composing and Decomposing Numbers to 10</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Compose and decompose numbers 0 to 10</td>
<td>CC.2.1.K.B.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use objects to show numbers 4 to 10 in two parts</td>
<td>CC.2.1.K.B.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write number sentences that add up to numbers 4 to 10</td>
<td>CC.2.1.K.B.1</td>
<td></td>
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<tr>
<td>Construct a graph</td>
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</tbody>
</table>

<p>| <strong>Unit 2: Composing Numbers 11 to 19</strong> | | 1 - 2 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Compose numbers 11–19 | CC.2.1.K.B.1 | | |
| Identify a number sentence whose parts match those in a picture | CC.2.1.K.B.1 | | |
| Compose number sentences that correlate with pictures on a ten-frame | CC.2.1.K.B.1 | | |
| Construct number sentences using 10 and some more | | | |</p>
<table>
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<tr>
<td><strong>Unit 3: Decomposing Numbers 11 to 19</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use objects to create sets up to 19</td>
<td>CC.2.1.K.B.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Write equations that represent the decomposition of 11 to 19 as a ten and some ones</td>
<td>CC.2.1.K.B.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Solve problems by identifying repeating elements</td>
<td>CC.2.1.K.B.1</td>
<td>1 - 2 weeks</td>
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<tr>
<td>Identify patterns in the hundreds chart</td>
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</table>

| **Unit 4: Measurement** |  | 1 - 2 weeks |  |
| Compare objects by length and height | CC.2.4.K.A.1 | 1 - 2 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Problem solve by trying, checking, and revising | CC.2.4.K.A.1 | 1 - 2 weeks |  |
| Describe attributes of objects | CC.2.4.K.A.1 | 1 - 2 weeks |  |

<p>| <strong>Unit 5: Sort, Classify, Count, and Categorize Data</strong> |  | 1 - 2 weeks |  |
| Sort objects based on their attributes | CC.2.4.K.A.4 | 1 - 2 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Sort a variety of objects, including two- and three-dimensional geometric figures, according to their attributes | CC.2.4.K.A.4 | 1 - 2 weeks |  |
| Describe how objects are sorted; interpret graphs of real objects and pictures | | 1 - 2 weeks |  |
| Construct a picture graph | | 1 - 2 weeks |  |</p>
<table>
<thead>
<tr>
<th>Math KB Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 6: Identifying and Describing Shapes</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Correctly name shapes regardless of their orientation or overall size</td>
<td>CC.2.3.K.A.1</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 7: Position and Location of Shapes</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe one object in relation to another</td>
<td>CC.2.3.K.A.1</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 8: Geometry</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Analyze and compare two- and three-dimensional shapes</td>
<td>CC.2.3.K.A.2</td>
<td></td>
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</tr>
<tr>
<td>Model shapes in the world using components or drawings</td>
<td>CC.2.3.K.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compose simple shapes to form larger shapes</td>
<td>CC.2.3.K.A.2</td>
<td></td>
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</tr>
<tr>
<td>Examine the attributes of real-world objects</td>
<td>CC.2.3.K.A.2</td>
<td></td>
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</tr>
</tbody>
</table>
## Grade 1

<table>
<thead>
<tr>
<th>Math 1A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Let's Learn Math!</strong></td>
<td>2 days</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Understand how to find and use the Coaching Guide</td>
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<tr>
<td>Locate and describe lesson resources</td>
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<tr>
<td>Identify ways to promote mathematical thinking in your daily life</td>
<td>All PA standards could apply</td>
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</tr>
<tr>
<td>Describe the different parts of a lesson</td>
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<tr>
<td>Describe the different types of assessments</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 2: Numbers to 12</strong></td>
<td>1 - 2 weeks</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Read and write numbers to 12</td>
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<tr>
<td>Recognize patterned arrangements of numbers without counting</td>
<td></td>
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<tr>
<td>Recognize two-part spatial patterns of numbers</td>
<td></td>
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<tr>
<td>Use objects to act out the actions in problems</td>
<td>CC.2.1.1.B.1</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 3: Comparing and Ordering Numbers</strong></td>
<td>1 - 2 weeks</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Compare and order numbers through 12</td>
<td></td>
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<tr>
<td>Order numbers to 12 using a number line</td>
<td></td>
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</tr>
<tr>
<td>Math 1A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
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</tr>
<tr>
<td>Use objects to act out ordering numbers to solve story problems</td>
<td>CC.2.1.1.B.1</td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td><strong>Unit 4: Understanding Addition</strong></td>
<td></td>
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<tr>
<td>Recognize parts of a number as a strategy for addition</td>
<td>CC.2.1.1.B.3, CC.2.2.1.A.1</td>
<td></td>
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</tr>
<tr>
<td>Write addition number sentences to solve part-part-whole and joining stories</td>
<td>CC.2.2.1.A.1</td>
<td></td>
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</tr>
<tr>
<td>Explore the commutative property of addition</td>
<td>CC.2.1.1.B.3, CC.2.2.1.A.1, CC.2.2.1.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use objects to solve story problems</td>
<td>CC.2.1.1.B.3, CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 5: Understanding Subtraction</strong></td>
<td></td>
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</tr>
<tr>
<td>Solve problems by finding the missing part</td>
<td>CC.2.1.1.B.3, CC.2.2.1.A.1</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Write and solve subtraction number sentences</td>
<td>CC.2.1.1.B.3, CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use subtraction to answer stories about separating and comparing</td>
<td>CC.2.1.1.B.3, CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write related addition and subtraction facts</td>
<td>CC.2.1.1.B.3, CC.2.2.1.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use counters to act out and solve subtraction story problems</td>
<td>CC.2.1.1.B.3, CC.2.2.1.A.1</td>
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</tr>
<tr>
<td>Math 1A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td><strong>Unit 6: Five and Ten Relationships</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Recognize numbers shown on a ten-frame</td>
<td></td>
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<tr>
<td>Represent 10 in two parts</td>
<td>CC.2.2.1.A.1</td>
<td></td>
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</tr>
<tr>
<td>Use counters and a part-part-whole model to find missing parts of 10</td>
<td>CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make tables to solve problems</td>
<td>CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 7: Addition Facts to 12</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Add by counting on and with doubles and near doubles facts</td>
<td>CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use ten-frames to model addition facts with 5 and 10</td>
<td>CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw pictures to solve addition story problems</td>
<td>CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 8: Subtraction Facts to 12</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Master concepts of 0 less than, 1 less than, and 2 less than when subtracting 0, 1, and 2</td>
<td>CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connect addition facts with corresponding subtraction facts</td>
<td>CC.2.2.1.A.1, CC.2.2.1.A.2</td>
<td></td>
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</tr>
<tr>
<td>Draw a picture and write a number sentence to solve subtraction story problems</td>
<td>CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Math 1A Units and Objectives

<table>
<thead>
<tr>
<th>Unit 9: Geometry</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sort and identify plane shapes and compare them to everyday objects</strong></td>
<td>CC.2.3.1.A.1</td>
<td>1-2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td><strong>Combine and break apart shapes to make new geometric shapes</strong></td>
<td>CC.2.3.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Make organized lists to solve problems</strong></td>
<td></td>
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<tr>
<td><strong>Identify the attributes of geometric solid</strong></td>
<td>CC.2.3.1.A.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit 10: Counting and Number Patterns to 100</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use counters to demonstrate relationships among numbers 11 through 20</strong></td>
<td>CC.2.2.1.A.1</td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td><strong>Find number patterns and visual patterns on a hundred chart by skip counting with 2s, 5s, and 10s</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Use counters to determine whether a number is odd or even</strong></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Math 1B Units and Objectives

<table>
<thead>
<tr>
<th>Unit 1: Tens and Ones</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Tens and Ones</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Math 1B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
</tr>
<tr>
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</tr>
<tr>
<td>Count, read, and write two-digit numbers as groups of ten and leftovers</td>
<td>CC.2.1.1.B.2</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Model a two-digit number and write its expanded form</td>
<td>CC.2.1.1.B.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Break apart tens and ones to represent the same number in different ways</td>
<td>CC.2.1.1.B.2</td>
<td></td>
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</tr>
<tr>
<td>Make an organized list to track solutions to a problem</td>
<td>CC.2.1.1.B.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 2: Comparing and Ordering Numbers to 100</strong></td>
<td>1 - 2 weeks</td>
<td></td>
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</tr>
<tr>
<td>Use a hundred chart to show more than and less than relationships</td>
<td>CC.2.1.1.B.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compare two-digit numbers using models and identify missing numbers using parts of a hundred chart</td>
<td>CC.2.1.1.B.2</td>
<td></td>
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</tr>
<tr>
<td>Estimate positions of numbers on a number line</td>
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<tr>
<td>Identify numbers that come before or after a given number and order numbers from least to greatest</td>
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<tr>
<td><strong>Unit 4: Measurement</strong></td>
<td>1 - 2 weeks</td>
<td></td>
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</tr>
<tr>
<td>Compare and order objects by length</td>
<td>CC.2.4.1.A.1</td>
<td></td>
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</tr>
<tr>
<td>Use nonstandard units to estimate, measure and compare the lengths of objects</td>
<td>CC.2.4.1.A.1</td>
<td></td>
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</tr>
<tr>
<td>Estimate, measure, and compare the lengths of objects using nonstandard and standard units</td>
<td>CC.2.4.1.A.1</td>
<td></td>
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</tr>
<tr>
<td>Estimate and compare the temperature of different objects</td>
<td>CC.2.4.1.A.1</td>
<td></td>
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<tr>
<td>Use reasoning to measure objects</td>
<td>CC.2.4.1.A.1</td>
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</tr>
<tr>
<td>Math 1B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td><strong>Unit 5: Time</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Tell and write time to the hour and half hour using digital and analog clocks</td>
<td>CC.2.4.1.A.2</td>
<td></td>
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<tr>
<td>Read and use a table</td>
<td>CC.2.4.1.A.4</td>
<td></td>
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<tr>
<td>Read and use a calendar</td>
<td>CC.2.4.1.A.4</td>
<td></td>
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</tr>
<tr>
<td>Create a schedule showing times and activities</td>
<td>CC.2.4.1.A.4</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 6: Addition Facts to 18</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Recognize the doubles number relationships and use it as a strategy for remembering addition facts</td>
<td>CC.2.2.1.A.1</td>
<td></td>
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</tr>
<tr>
<td>Solve two-question problems by using the answer to the first question to answer the second question</td>
<td>CC.2.2.1.A.1</td>
<td></td>
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</tr>
<tr>
<td>Use counters and ten-frames to make 10 as a strategy for adding 9 and 8</td>
<td>CC.2.2.1.A.1</td>
<td></td>
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</tr>
<tr>
<td>Use the associative and commutative properties to add three numbers</td>
<td>CC.2.1.1.B.3, CC.2.2.1.A.1, CC.2.2.1.A.2</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 7: Subtraction Facts to 18</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use counters and part-part-whole models to show and write related addition and subtraction facts</td>
<td>CC.2.2.1.A.1, CC.2.2.1.A.2</td>
<td></td>
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</tr>
<tr>
<td>Math 1B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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</tr>
<tr>
<td>Use a related addition fact to find the missing part in a subtraction problem</td>
<td>CC.2.2.1.A.1</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Draw pictures and write number sentences to solve addition and subtraction story problems</td>
<td>CC.2.2.1.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 8: Data and Graphs</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Use information from bar graphs and picture graphs to answer questions and draw conclusions</td>
<td>CC.2.4.1.A.4</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe the location of an object shown on a grid</td>
<td>CC.2.4.1.A.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collect a set of data and organize it in a real graph</td>
<td>CC.2.4.1.A.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use data in a table to complete a graph</td>
<td>CC.2.4.1.A.4</td>
<td></td>
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</tr>
<tr>
<td>Describe the probability that an event will occur</td>
<td>CC.2.4.1.A.4</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 9: Fractional Parts</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe equal parts of a shape</td>
<td>CC.2.3.1.A.2</td>
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</tr>
<tr>
<td>Identify and show specified parts of a set</td>
<td>CC.2.3.1.A.2</td>
<td></td>
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<tr>
<td>Draw pictures to solve problems related to parts of a group</td>
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</tr>
<tr>
<td><strong>Unit 10: Adding and Subtracting with Tens and Ones</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Add multiples of 10 to two-digit numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add one-digit numbers to two-digit numbers with and without regrouping</td>
<td>CC.2.2.1.A.1</td>
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<td></td>
</tr>
</tbody>
</table>
### Math 1B Units and Objectives

<table>
<thead>
<tr>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtract multiples of 10 from two-digit numbers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtract one-digit numbers from two-digit numbers with and without regrouping</td>
<td>CC.2.2.1.A.1</td>
<td></td>
</tr>
<tr>
<td>Solve problems by identifying unnecessary information and writing number sentences</td>
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</tbody>
</table>

### Grade 2

#### Math 2A Units and Objectives

<table>
<thead>
<tr>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
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<tbody>
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</tbody>
</table>

**Unit 1: Let's Learn Math!**

- Understand how to find and use the Coaching Guide
- Locate and describe lesson resources
- Identify ways to promote mathematical thinking in your daily life
- Describe the different parts of a lesson
- Describe the different types of assessments

**Unit 2: Addition Strategies**

- Write addition sentences involving 0, 1, or 2
- CC.2.1.2.B.3, CC.2.2.2.A.1, CC.2.2.2.A.2

Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.
<table>
<thead>
<tr>
<th>Math 2A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write addition facts in which both addends are the same or one apart</td>
<td>CC.2.2.2.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use the commutative property to find sums</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1, CC.2.2.2.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find sums by making 10 when adding 9 and 8</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1, CC.2.2.2.A.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Unit 3: Subtraction Strategies**

<table>
<thead>
<tr>
<th>Instructional Activities</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtract 0, 1, and 2 from a number</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1, CC.2.2.2.A.2</td>
<td>1 - 2 weeks</td>
</tr>
<tr>
<td>Find differences by using doubles and related addition facts</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1, CC.2.2.2.A.2</td>
<td></td>
</tr>
<tr>
<td>Subtract by finding missing addends</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1, CC.2.2.2.A.2</td>
<td></td>
</tr>
<tr>
<td>Solve two-question problems by using the answer to the first question to answer the second question</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1, CC.2.2.2.A.2</td>
<td></td>
</tr>
</tbody>
</table>

**Unit 4: Place Value: Numbers to 100**

<table>
<thead>
<tr>
<th>Instructional Activities</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Represent two-digit numbers as groups of tens and ones</td>
<td>CC.2.1.2.B.1</td>
<td>1 - 2 weeks</td>
</tr>
<tr>
<td>Read and write number words for numbers 0–99</td>
<td>CC.2.1.2.B.1</td>
<td></td>
</tr>
<tr>
<td>Math 2A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
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<tr>
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</tr>
<tr>
<td>Use models and symbols to compare and order two-digit numbers</td>
<td>CC.2.1.2.B.1</td>
<td></td>
</tr>
<tr>
<td>Extend patterns on a hundred chart and identify even and odd numbers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use data from a chart to solve problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 5: Counting Money</strong></td>
<td></td>
<td>1 - 2 weeks</td>
</tr>
<tr>
<td>Identify individual values and count collections of coins that include half-dollars, quarters, dimes, nickels, and pennies</td>
<td>CC.2.4.2.A.3</td>
<td></td>
</tr>
<tr>
<td>Show the same amount of money using the same amount of coins</td>
<td>CC.2.4.2.A.3</td>
<td></td>
</tr>
<tr>
<td>Count and write money amounts greater than one dollar</td>
<td>CC.2.4.2.A.3</td>
<td></td>
</tr>
<tr>
<td>Make an organized list to find different combinations of coins</td>
<td>CC.2.4.2.A.3</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 6: Mental Addition</strong></td>
<td></td>
<td>1 - 2 weeks</td>
</tr>
<tr>
<td>Use mental math to add tens and ones to a two-digit number</td>
<td>CC.2.2.2.A.2</td>
<td></td>
</tr>
<tr>
<td>Use a hundred chart to add two-digit numbers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use number patterns to solve problems</td>
<td>CC.2.2.2.A.2</td>
<td></td>
</tr>
<tr>
<td>Math 2A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
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</tr>
<tr>
<td><strong>Unit 7: Mental Subtraction</strong></td>
<td></td>
<td>1 - 2 weeks</td>
</tr>
<tr>
<td>Mentally subtract multiples of 10 from two-digit numbers</td>
<td>CC.2.2.2.A.2</td>
<td></td>
</tr>
<tr>
<td>Find missing parts of 100 by counting up from a given number</td>
<td></td>
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</tr>
<tr>
<td>Subtract a two-digit number from a two-digit number with mental math and with models</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determine whether problems can be solved with missing information or extra information</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 8: Adding Two-Digit Numbers</strong></td>
<td></td>
<td>1 - 2 weeks</td>
</tr>
<tr>
<td>Use models to add a one-digit number to a two-digit number and decide if regrouping is necessary</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1</td>
<td></td>
</tr>
<tr>
<td>Use place-value models and the standard algorithm to add 2 two-digit numbers with and without regrouping</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1</td>
<td></td>
</tr>
<tr>
<td>Use paper and pencil to add 3 two-digit numbers</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1</td>
<td></td>
</tr>
<tr>
<td>Draw pictures and write number sentences to solve addition problems</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 9: Subtracting Two-Digit Numbers</strong></td>
<td></td>
<td>1 - 2 weeks</td>
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<tr>
<td>Math 2A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
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</tr>
<tr>
<td>Use models and the standard algorithm to subtract a one-digit number from a two-digit number with or without regrouping</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1</td>
<td></td>
</tr>
<tr>
<td>Use models and the standard algorithm to subtract two-digit numbers</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1</td>
<td></td>
</tr>
<tr>
<td>Relate addition to subtraction by using one operation to check the other</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1</td>
<td></td>
</tr>
<tr>
<td>Select the correct operation to solve each part of a two-question problem</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1</td>
<td></td>
</tr>
</tbody>
</table>

**Unit 10: Using Addition and Subtraction**

<table>
<thead>
<tr>
<th>Math 2B Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete addition and subtraction problems using two-digit coin amounts</td>
<td>CC.2.4.2.A.3</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Estimate the sums and differences of two-digit numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use different methods to solve addition and subtraction problems</td>
<td>CC.2.1.2.B.3, CC.2.2.2.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve problems involving adding and subtracting money by using the try, check, and revise strategy</td>
<td>CC.2.4.2.A.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Math 2B Units and Objectives**

<table>
<thead>
<tr>
<th>Math 2B Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1: Geometry</td>
<td>CC.2.3.2.A.1</td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify attributes of plane shapes and solid figures</td>
<td>CC.2.3.2.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cut shapes apart to make new shapes</td>
<td>CC.2.3.2.A.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Math 2B Units and Objectives

<table>
<thead>
<tr>
<th>Math 2B Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divide a rectangle into equal squares</td>
<td>CC.2.3.2.A.2</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use clues to solve riddles about plane shapes and solid figures</td>
<td>CC.2.3.2.A.1</td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
</tbody>
</table>

#### Unit 2: Fractions

<table>
<thead>
<tr>
<th>Math 2B Units and Objectives</th>
<th>PA Math Standards Addressed</th>
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<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify and show unit and non-unit fractions of a region</td>
<td>CC.2.3.2.A.2</td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Estimate the fraction for a given part of a region</td>
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</tr>
<tr>
<td>Identify and show fractions of a set</td>
<td>CC.2.3.2.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use objects to model and solve problems involving fractions of a group</td>
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</tbody>
</table>

#### Unit 3: Measurement: Length and Area

<table>
<thead>
<tr>
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<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate and measure the lengths and heights of objects using nonstandard and standard units</td>
<td>CC.2.4.2.A.1</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Count units around shapes to find perimeter</td>
<td>CC.2.4.2.A.1</td>
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<tr>
<td>Use a square pattern block to find the area of a figure</td>
<td></td>
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</tr>
<tr>
<td>Use objects to find the distance around shapes</td>
<td>CC.2.4.2.A.1</td>
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</tbody>
</table>

#### Unit 4: Time and Temperature

<table>
<thead>
<tr>
<th>Math 2B Units and Objectives</th>
<th>PA Math Standards Addressed</th>
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<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read and express time with analog and digital clocks</td>
<td>CC.2.4.2.A.2</td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Develop a sense of comparative time durations</td>
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<tr>
<td>Math 2B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td>Complete, read, and use a calendar</td>
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<tr>
<td>Read and write temperatures shown on Fahrenheit and Celsius thermometers</td>
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<tr>
<td>Find and use the answers to hidden questions to solve story problems</td>
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</tr>
<tr>
<td><strong>Unit 5: Graphs and Probability</strong></td>
<td></td>
<td><strong>1 - 2 weeks</strong></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Represent sets of data with pictographs and bar graphs</td>
<td>CC.2.4.2.A.4</td>
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<tr>
<td>Locate and name points on a coordinate grid</td>
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<tr>
<td>Use data to describe the probability of events</td>
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</tr>
<tr>
<td>Use line plots, picture graphs and bar graphs to solve problems</td>
<td>CC.2.4.2.A.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 6: Numbers and Patterns to 1,000</strong></td>
<td></td>
<td><strong>1 - 2 weeks</strong></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Count by hundreds and use place-value models to show numbers up to 1,000</td>
<td>CC.2.1.2.B.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and record three-digit numbers in expanded form, standard form, and number word form</td>
<td>CC.2.1.2.B.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify patterns of numbers increasing by ones, tens, and hundreds</td>
<td>CC.2.1.2.B.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compare and order numbers up to 1,000</td>
<td>CC.2.1.2.B.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve problems by finding number patterns</td>
<td></td>
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</tr>
<tr>
<td>Math 2B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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</tr>
<tr>
<td><strong>Unit 7: Three-Digit Addition and Subtraction</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use models to add three-digit numbers with and without regrouping</td>
<td>CC.2.1.2.B.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find missing parts of a number using mental math strategies</td>
<td>CC.2.1.2.B.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find the nearest hundreds of 2 three-digit numbers to estimate their difference</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use models and a standard algorithm to subtract three-digit numbers</td>
<td>CC.2.1.2.B.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make a bar graph using data from a table</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 8: Multiplication Concepts</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use repeated addition and arrays to model multiplication stories</td>
<td>CC.2.2.2.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use multiplication number sentences to write and solve story problems</td>
<td>CC.2.2.2.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write multiplication problems in both horizontal and vertical forms</td>
<td>CC.2.2.2.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use arrays to investigate multiplying in any order</td>
<td>CC.2.2.2.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw pictures and write number sentences to solve multiplication problems</td>
<td>CC.2.2.2.A.3</td>
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</tbody>
</table>
## Grade 3

<table>
<thead>
<tr>
<th>Math 3A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1, Let’s Learn Math!</strong></td>
<td></td>
<td>2 days</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
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<tr>
<td>Learn how to find and use the Coaching Guide</td>
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<tr>
<td>Locate and describe lesson resources</td>
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<tr>
<td>Learn ways to promote mathematical thinking in your daily life</td>
<td>All PA standards could apply</td>
<td></td>
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<tr>
<td>Describe the different parts of a lesson</td>
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<tr>
<td>Describe the different types of assessments</td>
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</tr>
<tr>
<td><strong>Unit 2, Adding Whole Numbers</strong></td>
<td>CC.2.1.3.B.1</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M03.A-T.1: M03.A-T.1.1.1 M03.A-T.1: M03.A-T.1.1.2 M03.A-T.1: M03.A-T.1.1.2</td>
</tr>
<tr>
<td>Math 3A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
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<tr>
<td>Use the draw a picture problem solving strategy</td>
<td>CC.2.1.3.B.1</td>
<td></td>
<td></td>
<td>M03.A-T.1: M03.A-T.1.1.2</td>
</tr>
<tr>
<td><strong>Unit 3, Subtraction</strong></td>
<td></td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Use models to subtract 2- and 3-digit numbers</td>
<td>CC.2.1.3.B.1</td>
<td>3 - 4 weeks</td>
<td></td>
<td>M03.A-T.1: M03.A-T.1.1.2</td>
</tr>
<tr>
<td>Subtract 2- and 3-digit numbers</td>
<td>CC.2.1.3.B.1</td>
<td></td>
<td></td>
<td>M03.A-T.1: M03.A-T.1.1.2</td>
</tr>
<tr>
<td>Subtract across zero</td>
<td>CC.2.1.3.B.1</td>
<td></td>
<td></td>
<td>M03.A-T.1: M03.A-T.1.1.2</td>
</tr>
<tr>
<td>Learn to write a number sentence</td>
<td>CC.2.1.3.B.1</td>
<td></td>
<td></td>
<td>M03.A-T.1: M03.A-T.1.1.2</td>
</tr>
<tr>
<td><strong>Unit 4, Multiplication Meanings and Facts</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Use multiplication as repeated addition</td>
<td>CC.2.2.3.A.1</td>
<td></td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1.1, M03.B-O.1.2.1</td>
</tr>
<tr>
<td>Identify arrays and multiply</td>
<td>CC.2.2.3.A.1</td>
<td></td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1.1, M03.B-O.1.2.1, M03.B-O.2: M03.B-O.2.1.1</td>
</tr>
<tr>
<td>Use 2, 5, 9, and 10 as factors</td>
<td>CC.2.1.3.B.1</td>
<td></td>
<td></td>
<td>M03.A-T.1: M03.A-T.1.1.3, M03.B-O.1: M03.B-O.1.1.1,</td>
</tr>
<tr>
<td></td>
<td>CC.2.2.3.A.1</td>
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<tr>
<td>Multiply with 0 and 1</td>
<td>CC.2.2.3.A.1</td>
<td></td>
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<td>No Assessment Anchor</td>
</tr>
<tr>
<td></td>
<td>CC.2.2.3.A.3</td>
<td></td>
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<td>M03.B-O.1: M03.B-O.1.1,</td>
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<tr>
<td></td>
<td>CC.2.2.3.A.4</td>
<td></td>
<td></td>
<td>M03.B-O.1.2.1</td>
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<td></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M03.B-O.3: M03.B-O.3.1.5</td>
</tr>
<tr>
<td>Use 3, 4, 6, 7, 8, 11, and 12 as factors</td>
<td>CC.2.2.3.A.3</td>
<td></td>
<td></td>
<td>No Assessment Anchor</td>
</tr>
<tr>
<td>Multiply with 3 factors</td>
<td>CC.2.2.3.A.1</td>
<td></td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1,</td>
</tr>
<tr>
<td></td>
<td>CC.2.2.3.A.2</td>
<td></td>
<td></td>
<td>M03.B-O.1.2.1</td>
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<tr>
<td></td>
<td>CC.2.2.3.A.3</td>
<td></td>
<td></td>
<td>M03.B-O.2: M03.B-O.2.1.2</td>
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<tr>
<td></td>
<td>CC.2.2.3.A.4</td>
<td></td>
<td></td>
<td>No Assessment Anchor</td>
</tr>
<tr>
<td>Solve multiple-step problems</td>
<td>CC.2.2.3.A.1</td>
<td></td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1,</td>
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<tr>
<td></td>
<td>CC.2.2.3.A.3</td>
<td></td>
<td></td>
<td>M03.B-O.1.2.1</td>
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<tr>
<td></td>
<td>CC.2.2.3.A.4</td>
<td></td>
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<td>No Assessment Anchor</td>
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<td></td>
<td></td>
<td>M03.B-O.3: M03.B-O.3.1.1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>M03.B-O.3.1.3</td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Unit 6, Multiplying Greater Numbers</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Use mental math and estimation to multiply</td>
<td>CC.2.1.3.B.1</td>
<td></td>
<td>M03.A-T.1: M03.A-T.1.1.1, M03.A-T.1.1.3</td>
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<tr>
<td>Use break apart and an expanded algorithm to multiply</td>
<td></td>
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<tr>
<td>Multiply 2- and 3-digit numbers by 1-digit numbers</td>
<td>CC.2.2.3.A.3</td>
<td></td>
<td>No Assessment Anchor</td>
<td></td>
</tr>
<tr>
<td>Draw a picture and write a number sentence</td>
<td></td>
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<tr>
<td><strong>Unit 7, Division</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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</tr>
<tr>
<td>Identify division as sharing</td>
<td>CC.2.2.3.A.1</td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1.2, M03.B-O.1.2.1</td>
<td></td>
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<tr>
<td>Understand remainders</td>
<td></td>
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<tr>
<td>Use division as repeated subtraction</td>
<td>CC.2.2.3.A.1</td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1.2, M03.B-O.1.2.1</td>
<td></td>
</tr>
<tr>
<td>Write division stories</td>
<td>CC.2.2.3.A.1</td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1.2, M03.B-O.1.2.1</td>
<td></td>
</tr>
<tr>
<td>Use objects and draw a picture</td>
<td>CC.2.2.3.A.1</td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1.2, M03.B-O.1.2.1</td>
<td></td>
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<tr>
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</tr>
<tr>
<td>Unit 8, Patterns and Relationships</td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Solve repeating patterns</td>
<td>CC.2.2.3.A.4</td>
<td></td>
<td></td>
<td>M03.B-O.3: M03.B-O.3.1.5</td>
</tr>
<tr>
<td>Determine number sequences</td>
<td>CC.2.2.3.A.4</td>
<td></td>
<td></td>
<td>M03.B-O.3: M03.B-O.3.1.5</td>
</tr>
<tr>
<td>Extend tables</td>
<td>CC.2.2.3.A.4</td>
<td></td>
<td></td>
<td>M03.B-O.3: M03.B-O.3.1.5</td>
</tr>
<tr>
<td>Write rules for situations and translate words to expressions</td>
<td>CC.2.2.3.A.4</td>
<td></td>
<td></td>
<td>M03.B-O.3: M03.B-O.3.1.5</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Math 3B Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1, Solids and Shapes</td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Identify solid figures</td>
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<tr>
<td>Relate solids and shapes</td>
<td></td>
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<tr>
<td>Identify polygons, triangles, and quadrilaterals</td>
<td>CC.2.3.3.A.1</td>
<td></td>
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<tr>
<td>Combine, separate, and make new shapes</td>
<td></td>
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<tr>
<td>Make and test generalizations</td>
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<tr>
<td>Math 3B Units and Objectives</td>
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<tr>
<td><strong>Unit 2, Understanding Fractions</strong></td>
<td></td>
<td>3 - 4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Write fractions to describe regions and sets that are divided into equal parts</td>
<td>CC.2.1.3.C.1 CC.2.3.3.A.2</td>
<td></td>
<td>M03.A-F.1: M03.A-F.1.1.1 M03.C-G.1: M03.C-G.1.1.3</td>
</tr>
<tr>
<td>Use benchmark fractions to estimate</td>
<td>CC.2.1.3.C.1</td>
<td></td>
<td>M03.A-F.1: M03.A-F.1.1.2</td>
</tr>
<tr>
<td>Determine equivalent fractions and compare fractions using models</td>
<td>CC.2.1.3.C.1</td>
<td></td>
<td>M03.A-F.1: M03.A-F.1.1.3, M03.A-F.1.1.4</td>
</tr>
<tr>
<td>Identify fractions on a number line</td>
<td>CC.2.1.3.C.1</td>
<td></td>
<td>M03.A-F.1: M03.A-F.1.1.2, M03.A-F.1.1.5</td>
</tr>
<tr>
<td><strong>Unit 3, Customary and Metric Measurement</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Measure length to the nearest inch and to the nearest fraction of an inch</td>
<td>CC.2.4.3.A.1</td>
<td></td>
<td>M03.D-M.1: M03.D-M.1.2.3</td>
</tr>
<tr>
<td>Estimate and measure length using inches, feet, yards, and miles</td>
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<tr>
<td>Use customary units to estimate and measure capacity</td>
<td>CC.2.4.3.A.1</td>
<td></td>
<td>M03.D-M.1: M03.D-M.1.2.1</td>
</tr>
<tr>
<td>Use customary units to estimate and measure weight</td>
<td>CC.2.4.3.A.1</td>
<td></td>
<td>M03.D-M.1: M03.D-M.1.2.1</td>
</tr>
<tr>
<td>Draw a picture; make a table and look for a pattern</td>
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<tr>
<td>Math 3B Units and Objectives</td>
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<tr>
<td>Lessons</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 4, Perimeter and Area</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Measure perimeter of common shapes and find different shapes with the same perimeter</td>
<td>CC.2.4.3.A.6</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Try, check, and revise</td>
<td>CC.2.4.3.A.6</td>
<td></td>
<td>M03.D-M.4: M03.D-M.4.1.1</td>
</tr>
<tr>
<td>Understand, estimate, and measure area</td>
<td>CC.2.4.3.A.5</td>
<td></td>
<td>M03.D-M.3: M03.D-M.3.1.1, M03.D-M.3.1.2</td>
</tr>
<tr>
<td>Solve a simpler problem</td>
<td></td>
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<tr>
<td><strong>Unit 5, Time and Temperature</strong></td>
<td></td>
<td></td>
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<tr>
<td>Tell time to the half hour, quarter hour, and minute</td>
<td>CC.2.4.3.A.2</td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Convert units of time</td>
<td></td>
<td></td>
<td>M03.D-M.1: M03.D-M.1.1.1</td>
</tr>
<tr>
<td>Determine elapsed time</td>
<td>CC.2.4.3.A.2</td>
<td></td>
<td>M03.D-M.1: M03.D-M.1.1.2</td>
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<tr>
<td>Measure temperatures</td>
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<tr>
<td>Work backward</td>
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<tr>
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<tr>
<td><strong>Unit 6, Dividing with 1-Digit Numbers</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use mental math and estimation to divide</td>
<td>CC.2.2.3.A.3</td>
<td></td>
<td>No Assessment Anchor</td>
</tr>
<tr>
<td>Connect models and symbols</td>
<td>CC.2.2.3.A.1, CC.2.2.3.A.3</td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1.2 No Assessment Anchor</td>
</tr>
<tr>
<td>Divide 2-digit numbers</td>
<td>CC.2.2.3.A.3</td>
<td></td>
<td>No Assessment Anchor</td>
</tr>
<tr>
<td>Divide with remainders</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Solve multiple-step problems</td>
<td>CC.2.2.3.A.1, CC.2.2.3.A.3</td>
<td></td>
<td>M03.B-O.1: M03.B-O.1.1.2 No Assessment Anchor</td>
</tr>
</tbody>
</table>

| **Unit 7, Data and Graphs** |  | 2 - 3 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Organize data | CC.2.4.3.A.4 |  | M03.D-M.2: M03.D-M.2.1.4 |
| Read and make pictographs and bar graphs | CC.2.4.3.A.4 |  | M03.D-M.2: M03.D-M.2.1.2 M03.D-M.2.1.3 |
| Use a line plot to represent data | CC.2.4.3.A.4 |  | M03.D-M.2: M03.D-M.2.1.3 |
| Use tables and graphs to draw conclusions | CC.2.4.3.A.4 |  | M03.D-M.2: M03.D-M.2.1.4 |
### Grade 4

<table>
<thead>
<tr>
<th>Math 4A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
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<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
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<td><strong>Unit 1: Let's Get Ready to Learn Math!</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>All PA standards could apply</td>
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<tr>
<td>Learn ways to become a confident math learner</td>
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<tr>
<td>Describe the different parts of a lesson and the different types of assessments</td>
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<tr>
<td>Use money to understand decimals</td>
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<tr>
<td>Count money and make change</td>
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<tr>
<td>Make an organized list</td>
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</tbody>
</table>

**Unit 3: Adding and Subtracting Whole Numbers**

- Use mental math and estimation strategies: CC.2.1.4.B.1, CC.2.1.4.B.2
- Add and subtract whole numbers: CC.2.1.4.B.2
- Subtract across zeros: CC.2.1.4.B.2
- Problem solving strategies: CC.2.1.4.B.2, CC.2.2.4.A.1

<table>
<thead>
<tr>
<th>Estimated Instructional Time</th>
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</table>

**Unit 4: Multiplication Meanings and Facts**

- Understand meanings of multiplication: CC.2.1.4.B.2, CC.2.2.4.A.2, CC.2.2.4.A.4
- Learn patterns for multiplication facts: CC.2.1.4.B.2, CC.2.2.4.A.2, CC.2.2.4.A.4

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<tr>
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<tr>
<td>Learn 2, 4, 6, 7, 8, 10, 11, and 12 as factors</td>
<td>CC.2.1.4.B.2</td>
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</tr>
<tr>
<td><strong>Unit 5: Multiplying by 1-Digit Numbers</strong></td>
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<tr>
<td>Multiply by multiples of 10 and 100</td>
<td>CC.2.1.4.B.2</td>
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<tr>
<td>Multiply 1-digit numbers by 2-digit and 3-digit numbers</td>
<td>CC.2.1.4.B.2</td>
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<tr>
<td>Math 4A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
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</tr>
<tr>
<td><strong>Unit 6: Multiplying by 2-Digit Numbers</strong></td>
<td></td>
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<tr>
<td>Mentally multiply and estimate products</td>
<td>CC.2.1.4.B.2</td>
<td>1 - 2 weeks</td>
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<tr>
<td>Multiply 2-digit numbers by multiples of 10 and other 2-digit numbers</td>
<td>CC.2.1.4.B.2</td>
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<tr>
<td><strong>Unit 7: Division Meanings and Facts</strong></td>
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<tr>
<td>Use meanings of division</td>
<td>CC.2.1.4.B.2 CC.2.2.4.A.1</td>
<td>1 - 2 weeks</td>
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<td>Math 4A Units and Objectives</td>
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<tr>
<td><strong>Unit 8: Dividing by 1-Digit Divisors</strong></td>
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<td>2 - 3 weeks</td>
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<tr>
<td>Determine prime and composite numbers</td>
<td>CC.2.2.4.A.2</td>
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<tr>
<td>Use factors</td>
<td>CC.2.2.4.A.2</td>
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<tr>
<td><strong>Unit 9: Understanding Fractions</strong></td>
<td></td>
<td>2 - 3 weeks</td>
</tr>
<tr>
<td>Identify regions and sets</td>
<td></td>
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<tr>
<td>Determine equivalent fractions</td>
<td>CC.2.1.4.C.1</td>
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<tr>
<td>Write fractions in simplest terms</td>
<td>CC.2.1.4.C.1</td>
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<tr>
<td>Compare and order fractions</td>
<td>CC.2.1.4.C.1</td>
<td></td>
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<tr>
<td>Convert improper fractions and mixed numbers</td>
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<tr>
<td>Math 4B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Instructional Activities</td>
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</tr>
<tr>
<td><strong>Unit 1: Understanding Decimals</strong></td>
<td></td>
<td>2 - 3 weeks</td>
</tr>
<tr>
<td>Determine decimal place value</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify fractions and decimals on a number line</td>
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<tr>
<td>Draw a picture</td>
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<tr>
<td><strong>Unit 2: Adding and Subtracting Fractions</strong></td>
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<td>2 - 3 weeks</td>
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<tr>
<td>Add and subtract mixed numbers with like denominators</td>
<td>CC.2.1.4.C.2</td>
<td>M04.A-F.2: M04.A-F.2.1.3</td>
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<tr>
<td><strong>Unit 4: Lines, Angles, and Shapes</strong></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify points, lines, planes, line segments, angles, and rays</td>
<td>CC.2.3.4.A.1</td>
<td>M04.C-G.1: M04.C-G.1.1.1</td>
</tr>
<tr>
<td>Identify polygons</td>
<td>CC.2.3.4.A.1</td>
<td>M04.C-G.1: M04.C-G.1.1.2</td>
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<tr>
<td>Identify triangles and quadrilaterals</td>
<td>CC.2.3.4.A.1 CC.2.3.4.A.2</td>
<td>M04.C-G.1: M04.C-G.1.1.2</td>
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<tr>
<td>Make and test generalizations</td>
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<tr>
<td><strong>Unit 5: Measurement, Time, and Temperature</strong></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use customary units of length, capacity, and weight</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1: M04.D-M.1.1.1</td>
</tr>
<tr>
<td>Convert customary units</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1: M04.D-M.1.1.1</td>
</tr>
<tr>
<td>Use metric units of length, capacity, and mass</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1: M04.D-M.1.1.1, M04.D-M.1.1.2</td>
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<tr>
<td>Convert metric units</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1: M04.D-M.1.1.1</td>
</tr>
<tr>
<td>Determine time, elapsed time, and</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1: M04.D-M.1.1.1</td>
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<td>Math 4B Units and Objectives</td>
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<tr>
<td>Unit 6: Data and Graphs</td>
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<tr>
<td>temperature</td>
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<td>M.1.1.1</td>
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<td>CC.2.4.4.A.4</td>
<td>M04.D-M.2: M04.D-M.2.1.1, M04.D-M.2.1.2</td>
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<tr>
<td>Use data from surveys</td>
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<tr>
<td>Interpret graphs including line plots and bar graphs</td>
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<tr>
<td>Solve problems using line plots</td>
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<td>M04.D-M.1: M04.D-M.1.1.3</td>
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<tr>
<td>Unit 8: Area and Perimeter</td>
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<tr>
<td>Determine area</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1: M04.D-M.1.1.3</td>
</tr>
<tr>
<td>Find the area of squares, rectangles, parallelograms, and triangles</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1: M04.D-M.1.1.3</td>
</tr>
<tr>
<td>Solve for perimeter of a figure</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1</td>
</tr>
<tr>
<td>Solve for perimeters and areas of different figures</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1: M04.D-M.1.1.3</td>
</tr>
<tr>
<td>Solve a simpler problem and make a table</td>
<td>CC.2.4.4.A.1</td>
<td>M04.D-M.1: M04.D-M.1.1.2, M04.D-M.1.1.3</td>
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<td>Create a goal and steps to accomplish that goal</td>
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<td>Describe the different parts of a lesson and different types of assessments</td>
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<tr>
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<tr>
<td>Understand place value and decimal place value</td>
<td>CC.2.1.5.B.1</td>
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<td>M05.A-T.1: M05.A-T.1.1.1, M05.A-T.1.1.3</td>
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<td>Compare and order whole numbers</td>
<td>CC.2.1.5.B.1</td>
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<td>M05.A-T.1: M05.A-T.1.1.1, M05.A-T.1.1.3</td>
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<td>Compare and order decimals</td>
<td>CC.2.1.5.B.1</td>
<td></td>
<td></td>
<td>M05.A-T.1: M05.A-T.1.1.4</td>
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<tr>
<td>Solve multiple-step problems; Use mental math, rounding, and estimating</td>
<td>CC.2.1.5.B.1</td>
<td>1 - 2 weeks</td>
<td></td>
<td>M05.A-T.1: M05.A-T.1.1.5</td>
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<tr>
<td>Add and subtract decimals</td>
<td>CC.2.1.5.B.2</td>
<td>1 - 2 weeks</td>
<td></td>
<td>M05.A-T.2: M05.A-T.2.1.3</td>
</tr>
</tbody>
</table>

**Unit 3: Multiplying Whole Numbers**

- Use multiplication properties
- Use mental math and estimation to find products
  - Multiply 2-digit numbers by 2-digit numbers | CC.2.1.5.B.2 | M05.A-T.2: M05.A-T.2.1.1 |
  - Multiply greater numbers | CC.2.1.5.B.2 | M05.A-T.2: M05.A-T.2.1.1 |
  - Use exponents | CC.2.1.5.B.2 | M05.A-T.2: M05.A-T.2.1.1 |

**Unit 4: Dividing by 1-Digit Divisors**

- Divide by multiples of 10 and estimate quotients | CC.2.1.5.B.1 | M05.A-T.1: M05.A-T.1.1.2 |
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<tr>
<td>Understanding factors</td>
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<tr>
<td>Determine prime and composite numbers</td>
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<tr>
<td><strong>Unit 5: Dividing by 2-Digit Divisors</strong></td>
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<td>2 - 3 weeks</td>
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<td>M05.A-T.1: M05.A-T.1.1.2</td>
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<tr>
<td>Use patterns to divide</td>
<td>CC.2.1.5.B.1</td>
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<tr>
<td>Estimate quotients with 2-digit divisors</td>
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<tr>
<td>Multiple-Step problems</td>
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<tr>
<td>Divide by multiples of 10</td>
<td>CC.2.1.5.B.1</td>
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<td>M05.A-T.1: M05.A-T.1.1.2</td>
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<tr>
<td>Use 1- and 2-digit quotients</td>
<td>CC.2.1.5.B.2</td>
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<td></td>
<td>M05.A-T.2: M05.A-T.2.1.2</td>
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<tr>
<td><strong>Unit 6: Variables and Expressions</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M05.B-O.1: M05.B-O.1.1.2</td>
</tr>
<tr>
<td>Solve variables and expressions</td>
<td>CC.2.2.5.A.1</td>
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<td></td>
</tr>
<tr>
<td>Use patterns and expressions to solve problems</td>
<td>CC.2.2.5.A.1</td>
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<td>M05.B-O.1: M05.B-O.1.1.1, M05.B-O.1.1.2</td>
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<tr>
<td>Use the Distributive Property</td>
<td>CC.2.2.5.A.1</td>
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<td>M05.B-O.1: M05.B-O.1.1.1</td>
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<td>Apply the Order of Operations</td>
<td>CC.2.2.5.A.1</td>
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<td>M05.B-O.1: M05.B-O.1.1.1, M05.B-O.1.1.2</td>
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<tr>
<td><strong>Unit 7: Multiplying and Dividing Decimals</strong></td>
<td></td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Multiply and divide decimals by 10, 100, and 1,000</td>
<td>CC.2.1.5.B.1 CC.2.1.5.B.2</td>
<td>2 - 3 weeks</td>
<td></td>
<td>M05.A-T.1: M05.A-T.1.1.2 M05.A-T.2: M05.A-T.2.1.3</td>
</tr>
<tr>
<td>Multiply and divide a decimal by a whole number</td>
<td>CC.2.1.5.B.2</td>
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<td>M05.A-T.2: M05.A-T.2.1.3</td>
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<tr>
<td><strong>Unit 8: Shapes</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Apply basic geometric ideas</td>
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<tr>
<td>Measure and classify angles</td>
<td></td>
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<tr>
<td>Identify polygons, triangles, and quadrilaterals</td>
<td>CC.2.3.5.A.2</td>
<td></td>
<td>M05.C-G.2: M05.C-G.2.1.1</td>
<td></td>
</tr>
<tr>
<td>Make and test generalizations</td>
<td>CC.2.3.5.A.2</td>
<td></td>
<td>M05.C-G.2: M05.C-G.2.1.1</td>
<td></td>
</tr>
</tbody>
</table>
### Math 5A Units and Objectives

<table>
<thead>
<tr>
<th>Unit 9: Fractions and Decimals</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply meanings of fractions</td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Divide fractions</td>
<td>CC.2.1.5.C.2</td>
<td>M05.A-F.2: M05.A-F.2.1.1</td>
<td></td>
</tr>
<tr>
<td>Convert mixed numbers and improper fractions</td>
<td></td>
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<tr>
<td>Compare and order fractions and mixed numbers</td>
<td></td>
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<tr>
<td>Simplify fractions to simplest terms and determine equivalent fractions</td>
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</tr>
</tbody>
</table>

### Math 5B Units and Objectives

<table>
<thead>
<tr>
<th>Unit 1: Adding and Subtracting Fractions and Mixed Numbers</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add and subtract fractions with like denominators</td>
<td>CC.2.1.5.C.1</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Math 5B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
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</tr>
<tr>
<td>Add and subtract fractions with unlike denominators</td>
<td>CC.2.1.5.C.1</td>
<td></td>
<td>M05.A-F:1: M05.A-F.1.1.1</td>
</tr>
<tr>
<td>Add and subtract mixed numbers</td>
<td>CC.2.1.5.C.1</td>
<td></td>
<td>M05.A-F:1: M05.A-F.1.1.1</td>
</tr>
<tr>
<td>Use the try, check, and revise strategy</td>
<td>CC.2.1.5.C.1</td>
<td></td>
<td>M05.A-F:1: M05.A-F.1.1.1</td>
</tr>
</tbody>
</table>

**Unit 2: Multiplying Fractions and Mixed Numbers**

- Multiply fractions and whole numbers
- Multiply two fractions | CC.2.1.5.C.2 | 2 - 3 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
- Multiply mixed numbers | CC.2.1.5.C.2 | 2 - 3 weeks | M05.A-F:2: M05.A-F.2.1.2 |
- Relate division to multiplication of fractions | CC.2.1.5.C.2 | 2 - 3 weeks | M05.A-F:2: M05.A-F.2.1.1 |

**Unit 4: Solids**

- Identify solids
- Relate shapes and solids
- Find volume of solids | CC.2.4.5.A.5 | 2 - 3 weeks | M05.D-M:3: M05.D-M.3.1.1 |
- Work with irregular shapes and solids | CC.2.4.5.A.5 | 2 - 3 weeks | M05.D-M:3: M05.D-M.3.1.2 |
- Use objects and solve a simpler problem
<table>
<thead>
<tr>
<th>Math 5B Units and Objectives</th>
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<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit 5: Measurement Units</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use customary and metric units of capacity</td>
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<tr>
<td>Use units of weight and mass</td>
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</tr>
<tr>
<td>Convert customary and metric units</td>
<td>CC.2.4.5.A.1</td>
<td></td>
<td>M05.D-M.1: M05.D-M.1.1.1</td>
</tr>
<tr>
<td>Determine time and elapsed time</td>
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<tr>
<td>Find temperature changes</td>
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</tbody>
</table>

| **Unit 7: Equations and Graphs** |  | 2 - 3 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Understand integers |  |  |  |
| Work with ordered pairs | CC.2.3.5.A.1 |  | M05.C-G.1: M05.C-G.1.1.1 |
| Find distances on number lines and the coordinate plane |  |  |  |
| Graph patterns and equations | CC.2.3.5.A.1 |  | M05.C-G.1: M05.C-G.1.1.2 |
| Make and interpret various types of graphs | CC.2.4.5.A.2 |  | M05.D-M.2: M05.D-M.2.1.2 |
# Grade 6

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<thead>
<tr>
<th>Math 6A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1: Focus on Success in Math 6</td>
<td>2 days</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. Note This unit serves as an introduction to the course and is meant to prepare students for success in subsequent units by having them set goals, establish study strategies that reduce anxiety, and review ways to be an active learner.</td>
<td></td>
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<tr>
<td>Assess personal readiness for studying and learning</td>
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<tr>
<td>Recognize the importance of personal ownership of learning</td>
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<tr>
<td>Reflect on personal strengths and weaknesses in order to improve mathematical performance</td>
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<tr>
<td>Use resources to set goals</td>
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<tr>
<td>Math 6A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
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</tr>
<tr>
<td><strong>Unit 2: Whole Numbers and Decimals</strong></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M06.A-N.3, M06.A-N.3.1.1, M06.A-N.2.1.1</td>
<td></td>
</tr>
<tr>
<td>Apply the properties of addition and multiplication to solve problems</td>
<td>CC.2.1.6.E.2, CC.2.1.6.E.4</td>
<td></td>
<td>M06.A-N.2, M06.A-N.2.1.1</td>
<td></td>
</tr>
<tr>
<td>Calculate to find the sum, difference, product, or quotient of two whole numbers</td>
<td>CC.2.1.6.E.2, CC.2.1.6.E.4</td>
<td></td>
<td>M06.A-N.3, M06.A-N.3.1.1, M06.A-N.2.1.1</td>
<td></td>
</tr>
<tr>
<td>Apply the order of operations to evaluate numerical expressions</td>
<td>CC.2.1.6.E.2, CC.2.2.6.B.1</td>
<td></td>
<td>M06.A-N.2: M06.A-N.2.1.1 M06.B-E.1.1: M06.B-E.1.1.1, M06.B-E.1.1.4</td>
<td></td>
</tr>
<tr>
<td>Perform operations with multi-digit whole numbers and decimals</td>
<td>CC.2.1.6.E.2, CC.2.1.6.E.4</td>
<td></td>
<td>M06.A-N.2: M06.A-N.2.1.1</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 3: Number Theory and Fractions</strong></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M06.A-N.2.2 : M06.A-N.2.2.1</td>
<td></td>
</tr>
<tr>
<td>Identify factors of numbers and apply them to identify the prime factorization of numbers</td>
<td>CC.2.1.6.E.3</td>
<td></td>
<td>M06.A-N.2: M06.A-N.2.2.1, M06.A-R.1, M06.A-R.1.1.2</td>
<td></td>
</tr>
<tr>
<td>Use factors and multiples to find the least common denominator</td>
<td>CC.2.1.6.E.3, CC.2.1.6.D.1</td>
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<tr>
<td>Math 6A Units and Objectives</td>
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<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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</tr>
<tr>
<td>Generate equivalent fractions and expressions</td>
<td>CC.2.2.6.B.1, CC.2.1.6.D.1</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M06.B-E.1: M06.B-E.1.1.5 , M06.A-R.1, M06.A-R.1.1.2</td>
</tr>
<tr>
<td>Convert between forms of numbers, such as mixed numbers into fractions and fractions into decimals</td>
<td>CC.2.1.6.E.1</td>
<td></td>
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<td>M06.A-N.1, M06.A-N.1.1.1</td>
</tr>
<tr>
<td>Compare and order fractions and decimals</td>
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<tr>
<td><strong>Unit 4: Adding and Subtracting Fractions</strong></td>
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</tr>
<tr>
<td>Estimate sums and differences of fractions and whole numbers</td>
<td>CC.2.1.6.E.2, CC.2.1.6.D.1</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M06.A-N.2, M06.A-N.2.1.1, M06.A-R.1, M06.A-R.1.1.2</td>
</tr>
<tr>
<td>Calculate the sums and differences of fractions and mixed numbers</td>
<td>CC.2.1.6.E.2, CC.2.1.6.D.1</td>
<td></td>
<td></td>
<td>M06.A-N.2, M06.A-N.2.1.1, M06.A-R.1, M06.A-R.1.1.2</td>
</tr>
<tr>
<td>Identify the solution to an equation with fractions</td>
<td>CC.2.2.6.B.2, CC.2.1.6.E.1</td>
<td></td>
<td></td>
<td>M06.B-E.2: M06.B-E.2.1.3 , M06.A-N.1, M06.A-N.1.1.1</td>
</tr>
<tr>
<td>Calculate the elapsed time in a given scenario</td>
<td>CC.2.1.6.E.2</td>
<td></td>
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<td>M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td><strong>Unit 5: Multiplying and Dividing Fractions</strong></td>
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<tr>
<td>Calculate the product of whole numbers, fractions, and mixed numbers</td>
<td>CC.2.1.6.E.1, CC.2.1.6.E.2</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M06.A-N.1: M06.A-N.1.1.1, M06.A-N.2, M06.A-N.2.1.1</td>
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<tr>
<td>Identify the reciprocal of a fraction</td>
<td>CC.2.1.6.E.1</td>
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<td>M06.A-N.1: M06.A-N.1.1.1</td>
</tr>
<tr>
<td>Calculate the quotient of fractions and mixed numbers</td>
<td>CC.2.1.6.E.1</td>
<td></td>
<td></td>
<td>M06.A-N.1: M06.A-N.1.1.1</td>
</tr>
<tr>
<td>Identify customary units of measurement</td>
<td>CC.2.1.6.E.1, CC.2.1.6.E.2</td>
<td></td>
<td></td>
<td>M06.A-N.1: M06.A-N.1.1.1, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td>Convert between units of measurement in the customary system</td>
<td>CC.2.1.6.E.1, CC.2.1.6.E.2</td>
<td></td>
<td></td>
<td>M06.A-N.1: M06.A-N.1.1.1, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
</tbody>
</table>

**Unit 6: Patterns and Variables**

Identify numerical patterns and their rules | CC.2.1.6.E.2 | 2 - 3 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. | M06.A-N.2, M06.A-N.2.1.1 |

Simplify a numerical expression through the use of exponents | CC.2.2.6.B.1, CC.2.1.6.E.1 | | | M06.B-E.1: M06.B-E.1.1.1, M06.A-N.2, M06.A-N.2.1.1 |

Evaluate expressions using the given values | CC.2.2.6.B.1, CC.2.1.6.E.2 | | | M06.B-E.1: M06.B-E.1.1.1, M06.A-N.2, M06.A-N.2.1.1 |


Generate an equation and use it to solve a problem | CC.2.2.6.B.2, CC.2.1.6.E.2 | | | M06.B-E.2: M06.B-E.2.1.3, M06.A-N.2, M06.A-N.2.1.1 |
### Math 6A Units and Objectives

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<th>Assessment Anchors and Eligible Content</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit 7: Integers</strong></td>
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</tr>
<tr>
<td>Identify the absolute value of an integer and locate where integers fall on the number line</td>
<td>CC.2.1.6.E.4, CC.2.1.6.E.2</td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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</tbody>
</table>

### Math 6B Units and Objectives

<table>
<thead>
<tr>
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<tbody>
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<tr>
<td>Math 6B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td>Locate and name the ordered pair for points on the coordinate plane</td>
<td>CC.2.1.6.E.4</td>
<td></td>
<td>M06.A-N.3: M06.A-N.3.2.3</td>
</tr>
<tr>
<td>Identify the solution to a two-step equation</td>
<td>CC.2.2.6.B.2</td>
<td></td>
<td>M06.B-E.2: M06.B-E.2.1.3</td>
</tr>
<tr>
<td>Name, graph, and solve inequalities</td>
<td>CC.2.2.6.B.2</td>
<td></td>
<td>M06.B-E.2: M06.B-E.2.1.4</td>
</tr>
</tbody>
</table>

**Unit 2: Data and Graphs**

<p>| Calculate to find the mean, median, mode, and range when given a specified set of data      | CC.2.4.6.B.1, CC.2.1.6.E.2, | 2 - 3 weeks                  | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Interpret data from a visual representation, such as a bar graph, histogram, or box-and-whisker plot | CC.2.4.6.B.1, CC.2.1.6.E.2, |                             | M06.D-S.1: M06.D-S.1.1.1, M06.A-N.2, M06.A-N.2.1.1 |
| Explain how graphs and statistics can be misleading                                           | CC.2.4.6.B.1, CC.2.1.6.E.2, |                             | M06.D-S.1: M06.D-S.1.1.1, M06.A-N.2, M06.A-N.2.1.1 |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
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<td><strong>Unit 3: Tools of Geometry</strong></td>
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<tr>
<td>Distinguish between congruent and similar figures</td>
<td>CC.2.1.6.D.1</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Calculate the perimeter and area of rectangles and squares</td>
<td>CC.2.3.6.A.1, CC.2.1.6.E.2</td>
<td></td>
<td>M06.C-G.1, M06.C-G.1.1.1, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td>Find the area of a composite figure</td>
<td>CC.2.3.6.A.1, CC.2.1.6.E.2</td>
<td></td>
<td>M06.C-G.1, M06.C-G.1.1.1, M06.C-G.1.2, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td>Calculate the area of parallelograms, trapezoids, and triangles</td>
<td>CC.2.3.6.A.1, CC.2.1.6.E.2</td>
<td></td>
<td>M06.C-G.1, M06.C-G.1.1.1, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td>Calculate the volume of a rectangular prism</td>
<td>CC.2.3.6.A.1, CC.2.1.6.E.2</td>
<td></td>
<td>M06.C-G.1, M06.C-G.1.1.3, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td>Identify lines of symmetry</td>
<td>CC.2.1.6.D.1</td>
<td></td>
<td>M06.A-R.1: M06.A-R.1.1.1</td>
</tr>
<tr>
<td>Identify transformations</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 4: Geometry and Measurement</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Identify metric units and convert a value from one unit to another within the same category</td>
<td>CC.2.1.6.D.1, CC.2.1.6.E.2</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Calculate the perimeter and area of</td>
<td>CC.2.3.6.A.1,</td>
<td></td>
<td>M06.C-G.1: M06.C-G.1.1.1,</td>
</tr>
<tr>
<td>Math 6B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
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</tr>
<tr>
<td>polygons</td>
<td>CC.2.1.6.E.2</td>
<td></td>
<td>M06.C-G.1.1.2, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td>Calculate the circumference and area of a circle</td>
<td>CC.2.3.6.A.1, CC.2.1.6.E.2</td>
<td></td>
<td>M06.A-N.2, M06.A-N.2.1.1, M06.C-G.1, M06.C-G.1.1.2</td>
</tr>
<tr>
<td>Calculate the surface area and volume of prisms</td>
<td>CC.2.3.6.A.1, CC.2.1.6.E.2</td>
<td></td>
<td>M06.C-G.1: M06.C-G.1.1.2, M06.C-G.1.1.5, M06.C-G.1.1.6, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
</tbody>
</table>

**Unit 5: Ratios, Proportions, and Percents**

| Create and solve proportions to identify the missing amount | CC.2.1.6.D.1, CC.2.1.6.E.2 |                              | M06.A-R.1: M06.A-R.1.1.1, M06.A-N.2, M06.A-N.2.1.1 |
| Calculate the percent of a number                   | CC.2.1.6.D.1, CC.2.1.6.E.2, CC.2.4.6.B.1 |                              | M06.A-R.1: M06.A-R.1.1.5, M06.A-N.2, M06.A-N.2.1.1, M06.D-S.1, M06.D-S.1.1.1 |
| Solve problems involving percents; use circle graphs to solve problems | CC.2.1.6.D.1, CC.2.1.6.E.2, CC.2.4.6.B.1 |                              | M06.A-R.1: M06.A-R.1.1.5, M06.A-N.2, M06.A-N.2.1.1, M06.D-S.1, M06.D-S.1.1.1 |

Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.
<table>
<thead>
<tr>
<th>Math 6B Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 6: Exploring Probability</strong></td>
<td></td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Calculate the total number of outcomes</td>
<td>CC.2.1.6.E.2, CC.2.4.6.B.1</td>
<td>1 - 2 weeks</td>
<td>M06.D-S.1, M06.D-S.1.1.1, M06.D-S.1.1.3, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td>Calculate the theoretical and/or experimental probability</td>
<td>CC.2.1.6.D.1, CC.2.4.6.B.1, CC.2.1.6.E.2</td>
<td></td>
<td>M06.A-R.1: M06.A-R.1.1.1, M06.D-S.1, M06.D-S.1.1.1, M06.D-S.1.1.3, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td>Predict the probability of an event based on data</td>
<td>CC.2.1.6.D.1, CC.2.4.6.B.1, CC.2.1.6.E.2</td>
<td></td>
<td>M06.A-R.1: M06.A-R.1.1.1, M06.D-S.1, M06.D-S.1.1.1, M06.D-S.1.1.3, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
<tr>
<td>Calculate the probability of independent events</td>
<td>CC.2.1.6.D.1, CC.2.4.6.B.1, CC.2.1.6.E.2</td>
<td></td>
<td>M06.A-R.1: M06.A-R.1.1.1, M06.D-S.1, M06.D-S.1.1.1, M06.D-S.1.1.3, M06.A-N.2, M06.A-N.2.1.1</td>
</tr>
</tbody>
</table>
## Grade 7

<table>
<thead>
<tr>
<th>Math 7A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1: Focus on Success in Math 7</td>
<td></td>
<td>2 days</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. <strong>Note:</strong> This unit serves as an introduction to the course and is meant to prepare students for success in subsequent units by having them set goals, establish study strategies that reduce anxiety, and review ways to be an active learner.</td>
<td></td>
</tr>
</tbody>
</table>

- Reflect on personal strengths and weaknesses in order to improve mathematical performance
- Recognize the importance of personal ownership of learning
- Assess personal readiness for study and learning
- Use resources to assist with goal-setting and attainment
<table>
<thead>
<tr>
<th>Math 7A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 2: Decimals and Integers</td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M07.A-N.1: M07.A-N.1.1.1 M07.A-N.1: M07.A-N.1.1.2</td>
</tr>
<tr>
<td>Perform operations on decimals</td>
<td>CC.2.1.7.E.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform operations on integers</td>
<td>CC.2.1.7.E.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculate measures of central tendency</td>
<td>CC.2.4.7.B.2</td>
<td></td>
<td></td>
<td>M07.D-S.2.1: M07.D-S.2.1.1</td>
</tr>
<tr>
<td>Unit 3: Exponents, Factors, and Fractions</td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M07.A-N.1: M07.A-N.1.1.3 M07.B-E.2: M07.B-E.2.1.1</td>
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<tr>
<td>Evaluate exponents</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Compare fractions</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Convert between fractions and decimals</td>
<td>CC.2.1.7.E.1 CC.2.2.7.B.3</td>
<td></td>
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</tr>
<tr>
<td>Math 7A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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<tr>
<td><strong>Unit 4: Equations and Inequalities</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
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<tr>
<td>Solve and graph inequalities</td>
<td>CC.2.2.7.B.3</td>
<td></td>
<td></td>
<td>M07.B-E.2: M07.B-E.2.1.1, M07.B-E.2.2.2, M07.B-E.2.3.1</td>
</tr>
<tr>
<td><strong>Unit 5: Operations with Fractions and Rational Numbers</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Math 7A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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<tr>
<td><strong>Unit 6: Ratios, Rates, and Proportions</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Through the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M07.A-R.1.1.1 M07.A-R.1.2</td>
</tr>
<tr>
<td>Simplify and use ratios</td>
<td>CC.2.1.7.D.1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Use and create similar figures</td>
<td>CC.2.1.7.D.1, CC.2.3.7.A.2</td>
<td></td>
<td></td>
<td>M07.A-R.1: M07.A-R.1.1.1</td>
</tr>
<tr>
<td><strong>Unit 7: Percents</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Through the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M07.B-E.2: M07.B-E.2.1.1</td>
</tr>
<tr>
<td>Convert between fractions, decimals, and percents</td>
<td>CC.2.2.7.B.3</td>
<td></td>
<td></td>
<td>M07.B-E.2: M07.B-E.2.1.1</td>
</tr>
<tr>
<td>Math 7B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td><strong>Unit 1: Geometry</strong></td>
<td></td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Identify lines, segments, and rays</td>
<td></td>
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<tr>
<td>Identify and classify angles and polygons</td>
<td>CC.2.3.7.A.1, CC.2.3.7.A.2</td>
<td></td>
<td>M07.C-G.2: M07.C-G.2.1.1, M07.C-G.2.1.2, M07.C-G.1: M07.C-G.1.1.2</td>
<td></td>
</tr>
<tr>
<td>Calculate missing angle measurements from a triangle</td>
<td>CC.2.3.7.A.1</td>
<td></td>
<td>M07.C-G.2: M07.C-G.2.1.1, M07.C-G.2.1.2</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 2: Measurement</strong></td>
<td></td>
<td>3 - 4 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculate the area and perimeter of various polygons and circles</td>
<td>CC.2.3.7.A.1</td>
<td></td>
<td>M07.C-G.2: M07.C-G.2.2.1, M07.C-G.2.2.2</td>
<td></td>
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<tr>
<td>Evaluate square roots</td>
<td></td>
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<tr>
<td>Use the Pythagorean Theorem</td>
<td>CC.2.2.7.B.3</td>
<td></td>
<td>M07.B-E.2: M07.B-E.2.1.1, M07.B-E.2.3.1</td>
<td></td>
</tr>
<tr>
<td>Calculate the surface area and volume of prisms and cylinders</td>
<td>CC.2.3.7.A.1</td>
<td></td>
<td>M07.C-G.2: M07.C-G.2.2.2</td>
<td></td>
</tr>
<tr>
<td>Math 7B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
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</tr>
<tr>
<td><strong>Unit 3: Graphing in the Coordinate Plane</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Graph points, lines, translations, reflections, and rotations</td>
<td>CC.2.2.7.B.3</td>
<td></td>
<td>M07.B-E.2: M07.B-E.2.1.1</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 4: Patterns and Rules</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Identify and continue patterns and graphs</td>
<td>CC.2.2.7.B.3</td>
<td></td>
<td>M07.B-E.2: M07.B-E.2.1.1</td>
<td></td>
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<tr>
<td>Classify number sequences</td>
<td></td>
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<tr>
<td>Create and interpret graphs</td>
<td>CC.2.2.7.B.3</td>
<td></td>
<td>M07.B-E.2: M07.B-E.2.1.1</td>
<td></td>
</tr>
<tr>
<td>Calculate interest</td>
<td>CC.2.1.7.D.1, CC.2.2.7.B.3</td>
<td></td>
<td>M07.A-R.1: M07.A-R.1.1.6</td>
<td></td>
</tr>
<tr>
<td>Math 7B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
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<tr>
<td>Unit 6: Using Probability</td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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</tr>
<tr>
<td>Find the probability of dependent and independent events</td>
<td>CC.2.2.7.B.3, CC.2.4.7.B.3</td>
<td></td>
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</tr>
<tr>
<td>Represent all possible outcomes of an experiment in a sample space</td>
<td>CC.2.4.7.B.3</td>
<td></td>
<td>M07.D-S.3: M07.D-S.3.1.1</td>
<td></td>
</tr>
<tr>
<td>Find permutations and combinations</td>
<td>CC.2.2.7.B.3</td>
<td></td>
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</tbody>
</table>
# Grade 8 (Algebra Readiness)

<table>
<thead>
<tr>
<th>Algebra Readiness A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Focus on Success in Algebra Readiness</strong></td>
<td></td>
<td>2 days</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. <strong>Note:</strong> This unit serves as an introduction to the course and is meant to prepare students for success in subsequent units by having them set goals, establish study strategies that reduce anxiety, and review ways to be an active learner.</td>
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</tr>
<tr>
<td>Assess personal readiness for studying and learning</td>
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<tr>
<td>Recognize the importance of personal ownership of learning</td>
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</tr>
<tr>
<td>Reflect on personal strengths and weaknesses in order to improve mathematical performance</td>
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<tr>
<td>Use resources to set goals</td>
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<tr>
<td><strong>Unit 3: Rational Numbers</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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</tr>
<tr>
<td>Algebra Readiness A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td>Assessment Anchors and Eligible Content</td>
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<tr>
<td>Perform operations using positive and negative rational numbers</td>
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<tr>
<td>Predict the size and sign of a product relative to its multiplicand and multiplier</td>
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<tr>
<td>Identify and use powers, including numbers in scientific notation</td>
<td>CC.2.2.8.B.1</td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M08.B-E.1: M08.B-E.1.1.1, M08.B-E.1.1.4</td>
</tr>
<tr>
<td>Unit 4: Real Numbers and the Coordinate Plane</td>
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</tr>
<tr>
<td>Identify the differences between rational and irrational numbers and use rational numbers to estimate and order irrational numbers</td>
<td>CC.2.1.8.E.1</td>
<td></td>
<td></td>
<td>M08.A-N.1: M08.A-N.1.1.1, M08.A-N.1.1.4</td>
</tr>
<tr>
<td>Use the Pythagorean Theorem to find the lengths of sides of a right triangle</td>
<td>CC.2.3.8.A.3</td>
<td></td>
<td></td>
<td>M08.C-G.2: M08.C-G.2.1.2, M08.C-G.2.1.3</td>
</tr>
<tr>
<td>Unit 5: Applications of Proportions</td>
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<tr>
<td>Identify and simplify ratios to solve proportions</td>
<td></td>
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</tr>
<tr>
<td>Perform unit conversions and dilations</td>
<td>CC.2.3.8.A.2</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>M08.C-G.1: M08.C-G.1.1.3</td>
</tr>
<tr>
<td>Algebra Readiness A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
<td></td>
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</tr>
<tr>
<td>Use proportions in real-world applications, including scale models and indirect measurements</td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
</tbody>
</table>

**Unit 7: Equations and Inequalities**

<table>
<thead>
<tr>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC.2.2.8.B.3</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>M08.B-E.3: M08.B-E.3.1.2</td>
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</table>

<table>
<thead>
<tr>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC.2.2.8.B.3</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>M08.B-E.3: M08.B-E.3.1.2</td>
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</tbody>
</table>

**Unit 1: Geometry**

<table>
<thead>
<tr>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC.2.3.8.A.2</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>M08.C-G.1: M08.C-G.1.1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algebra Readiness B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
</tr>
<tr>
<td>----------------------------------------</td>
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</tr>
<tr>
<td>Calculate the area of figures and circumference of circles</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 2: Measurement</strong></td>
<td></td>
<td><strong>2 - 3 weeks</strong></td>
</tr>
<tr>
<td>Identify solids and their parts</td>
<td></td>
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</tr>
<tr>
<td>Calculate the surface area and volume of cylinders, prisms, cones, pyramids, and spheres</td>
<td>CC.2.3.8.A.1</td>
<td></td>
</tr>
<tr>
<td>Determine how a change in one dimension affects changes in surface area and volume</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 3: Using Graphs to Analyze Data</strong></td>
<td></td>
<td><strong>2 - 3 weeks</strong></td>
</tr>
<tr>
<td>Calculate the mean, median, and mode of a data set and explain the best use of each</td>
<td></td>
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<tr>
<td>Determine the best type of graph to display a data set</td>
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</tbody>
</table>
## Algebra Readiness B Units and Objectives

<table>
<thead>
<tr>
<th>PA Math Standards Addressed</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 5: Functions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify patterns of association—indicating strength and direction—of two factors and make predictions based upon a scatter plot</td>
<td>CC.2.4.8.B.1</td>
<td>2 - 3 weeks</td>
</tr>
<tr>
<td>Describe a sequence</td>
<td>CC.2.2.8.B.2</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 6: Polynomials and Properties of Exponents</strong></td>
<td>1 - 2 weeks</td>
<td></td>
</tr>
<tr>
<td>Add, subtract, and multiply polynomials</td>
<td>CC.2.2.8.B.1</td>
<td></td>
</tr>
<tr>
<td>Multiply and divide powers with the same base, including numbers in scientific notation</td>
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</tr>
</tbody>
</table>

### Notes:
- **Estimated Instructional Time** refers to the number of weeks allocated for each unit or activity.
- **Instructional Activities** outline the methods through which students will receive instruction, including phone calls, WebMail messages, LiveLesson® sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and daily review of assignments through the electronic grade book.
# Algebra 1

<table>
<thead>
<tr>
<th>Math Algebra 1 A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Focus on Success in Algebra 1</strong></td>
<td></td>
<td>2 days</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. <strong>Note:</strong> This unit serves as an introduction to the course and is meant to prepare students for success in subsequent units by having them set goals, establish study strategies that reduce anxiety, and review ways to be an active learner.</td>
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<tr>
<td>Use strategies such as self-assessment and reflection in order to improve mathematical performance</td>
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<tr>
<td>Distinguish between effort-based and ability-based models of learning</td>
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<tr>
<td>Assess personal readiness for study and learning</td>
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</tr>
<tr>
<td>Use resources to assist with goal-setting and attainment</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 2: Foundations for Algebra</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Write and simplify expressions</td>
<td>CC.2.2.HS.D.1</td>
<td></td>
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</tr>
<tr>
<td>Graph, order, and compare real numbers on a number line</td>
<td></td>
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</tr>
<tr>
<td>Use properties of real numbers to simplify expressions</td>
<td>CC.2.1.HS.F.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add, subtract, multiply, and divide real numbers</td>
<td>CC.2.1.HS.F.2, CC.2.2.HS.D.1</td>
<td></td>
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</tr>
<tr>
<td>Math Algebra 1 A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
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</tr>
<tr>
<td><strong>Unit 3: Solving Equations</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use tables and graphs to solve a problem</td>
<td>CC.2.2.HS.D.7</td>
<td></td>
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</tr>
<tr>
<td>Solve equations with one, two, or multiple steps</td>
<td>CC.2.2.HS.D.8, CC.2.2.HS.D.9, CC.2.1.HS.F.4</td>
<td></td>
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</tr>
<tr>
<td>Solve equations with variables on both sides</td>
<td>CC.2.2.HS.D.8, CC.2.2.HS.D.9, CC.2.1.HS.F.4</td>
<td></td>
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</tr>
<tr>
<td>Solve equations and formulas for a given variable, using them in real-world scenarios</td>
<td>CC.2.1.HS.F.3, CC.2.2.HS.D.7, CC.2.2.HS.D.8</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 4: Solving Inequalities</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Solve inequalities with one, two, or multiple steps</td>
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<tr>
<td>Graph the solutions to inequalities on the number line</td>
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</tr>
<tr>
<td>Solve and graph absolute value equations and inequalities</td>
<td>CC.2.2.HS.D.7</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 5: Introduction to Functions</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Write, graph, and identify the solutions to inequalities</td>
<td>CC.2.2.HS.C.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Represent mathematical relationships using graphs</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.3</td>
<td></td>
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</tr>
<tr>
<td>Math Algebra 1 A Units and Objectives</td>
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<td>Instructional Activities</td>
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<tr>
<td>Identify linear and nonlinear functions</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.D.7</td>
<td></td>
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</tr>
<tr>
<td>Graph functions on the coordinate plane</td>
<td>CC.2.2.HS.C.3, CC.2.2.HS.D.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write equations to represent a function</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.3, CC.2.2.HS.D.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 6: Linear Functions</strong></td>
<td></td>
<td><strong>2-3 weeks</strong></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Write linear equations in standard form, point-slope form, and slope-intercept form</td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.D.7</td>
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</tr>
<tr>
<td>Find slope and x- and y-intercepts</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.3, CC.2.2.HS.C.5, CC.2.2.HS.C.6</td>
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</tr>
<tr>
<td>Write equations of parallel and perpendicular lines</td>
<td>CC.2.2.HS.C.3, CC.2.2.HS.D.7</td>
<td></td>
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</tr>
<tr>
<td>Write equations to represent direct variation</td>
<td>CC.2.2.HS.C.3, CC.2.2.HS.C.6</td>
<td></td>
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</tr>
<tr>
<td>Graph linear equations, equations of direct variations, and horizontal and vertical translations</td>
<td>CC.2.2.HS.C.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 7: Systems of Equations and Inequalities</strong></td>
<td></td>
<td><strong>3-4 weeks</strong></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Solve systems of linear equations by graphing</td>
<td>CC.2.2.HS.D.10</td>
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</tbody>
</table>
### Math Algebra 1 A Units and Objectives

<table>
<thead>
<tr>
<th>Math Algebra 1 A Units and Objectives</th>
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<tbody>
<tr>
<td>Solve systems of linear equations by elimination</td>
<td>CC.2.2.HS.D.10</td>
<td></td>
<td></td>
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<tr>
<td>Solve systems of linear equations by substitution</td>
<td>CC.2.1.HS.F.3, CC.2.2.HS.D.10</td>
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<tr>
<td>Determine which method to use when solving a system of linear equations</td>
<td>CC.2.2.HS.D.7, CC.2.2.HS.D.10</td>
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</tbody>
</table>

**Unit 8: Semester A Review and Exam**

- Estimated Instructional Time: 1 week

### Math Algebra 1 B Units and Objectives

<table>
<thead>
<tr>
<th>Math Algebra 1 B Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
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<tbody>
<tr>
<td><strong>Unit 1: Exponents and Exponential Functions</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Write numbers in scientific notation</td>
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<tr>
<td>Define and use zero and negative exponents</td>
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<tr>
<td>Apply rules for multiplying powers</td>
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<tr>
<td>Apply the rules for dividing powers</td>
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</tr>
<tr>
<td>Use exponential functions to show growth or decay</td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.C.5, CC.2.2.HS.C.6, CC.2.2.HS.D.1, CC.2.2.HS.D.2</td>
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</tr>
</tbody>
</table>

<p>| <strong>Unit 2: Polynomials and Factoring</strong> | | 3-4 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Classify, add, and subtract polynomials | CC.2.2.HS.D.3 | | |
| Multiply a monomial by a polynomial | CC.2.2.HS.D.3 | | |</p>
<table>
<thead>
<tr>
<th>Math Algebra 1 B Units and Objectives</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Factor a monomial from a polynomial</td>
<td>CC.2.2.HS.D.1, CC.2.2.HS.D.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiply two binomials or a binomial by a trinomial</td>
<td>CC.2.2.HS.D.3</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Find a square of a binomial</td>
<td>CC.2.2.HS.D.3, CC.2.2.HS.D.5</td>
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</tr>
<tr>
<td><strong>Unit 3: Quadratic Functions and Equations</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Graph quadratic functions of the form $y = ax^2$ and $y = ax^2 + c$</td>
<td>CC.2.2.HS.C.2</td>
<td></td>
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</tr>
<tr>
<td>Graph functions of the form $y = ax^2 + bx + c$</td>
<td>CC.2.2.HS.C.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve quadratic equations by graphing and using square roots and by factoring</td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.D.1, CC.2.2.HS.D.2, CC.2.2.HS.D.8</td>
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<td></td>
</tr>
<tr>
<td><strong>Unit 4: Rational Expressions and Functions</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Simplify rational expressions</td>
<td>CC.2.2.HS.D.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiply and divide rational expressions</td>
<td>CC.2.2.HS.D.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simplify complex fractions</td>
<td>CC.2.2.HS.D.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divide polynomials</td>
<td>CC.2.2.HS.D.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add and subtract rational expressions</td>
<td>CC.2.2.HS.D.6</td>
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</table>
### Math Algebra 1 B Units and Objectives

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<tr>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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</tbody>
</table>

**Unit 5: Data Analysis and Probability**

- Make and interpret frequency tables and histograms CC.2.4.HS.B.1
- Find mean, median, mode, and range CC.2.4.HS.B.1
- Make and interpret box-and-whisker plots CC.2.4.HS.B.1

**Unit 6: Semester B Review and Exam** 1 week

### Geometry

<table>
<thead>
<tr>
<th>Math Geometry A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
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<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2 days</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. Note: This unit serves as an introduction to the course and is meant to prepare students for success in subsequent units by having them set goals, establish study strategies that reduce anxiety, and review ways to be an active learner.</td>
</tr>
</tbody>
</table>

**Unit 1: Focus on Success in Geometry**

- Use strategies such as self-assessment and reflection in order to improve mathematical performance
- Distinguish between effort-based and ability-based models of learning
- Assess personal readiness for study and learning
- Use resources to assist with goal-setting and attainment
<table>
<thead>
<tr>
<th>Math Geometry A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 2: Tools of Geometry</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Make nets and drawings of three-dimensional figures</td>
<td></td>
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</tr>
<tr>
<td>Understand basic terms and postulates of geometry</td>
<td></td>
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<tr>
<td>Find and compare lengths of segments and measures of angles</td>
<td></td>
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</tr>
<tr>
<td>Identify special angle pairs and use their relationships to find angle measures; Make basic constructions using a straightedge and a compass</td>
<td>CC.2.3.HS.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find the perimeter, circumference, and area of basic shapes</td>
<td>CC.2.3.HS.A.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 3: Reasoning and Proof</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Write high-quality definitions using biconditionals</td>
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<tr>
<td>Connect reasoning in algebra and geometry</td>
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</tr>
<tr>
<td>Prove and apply theorems about angles</td>
<td>CC.2.3.HS.A.3</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 4: Parallel and Perpendicular Lines</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify relationships between figures in space and angles formed by two lines and a transversal</td>
<td>CC.2.3.HS.A.3</td>
<td></td>
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</tr>
<tr>
<td>Prove theorems about parallel lines and use parallel lines to prove a theorem about triangles</td>
<td>CC.2.3.HS.A.3</td>
<td></td>
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</tr>
<tr>
<td>Math Geometry A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td>------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Use properties of parallel lines to find angle measures</td>
<td>CC.2.3.HS.A.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determine whether two lines are parallel or perpendicular</td>
<td></td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Construct parallel and perpendicular lines</td>
<td>CC.2.3.HS.A.14</td>
<td>2-3 weeks</td>
<td></td>
</tr>
<tr>
<td><strong>Unit 5: Transformations</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Identify and classify isometries</td>
<td>CC.2.3.HS.A.1</td>
<td></td>
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<tr>
<td>Describe, find, and compose figure translations</td>
<td></td>
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</tr>
<tr>
<td>Identify, find, and compose figure reflections, and use reflection to minimize a distance</td>
<td>CC.2.3.HS.A.1</td>
<td></td>
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</tr>
<tr>
<td>Identify, find, and compose compositions of reflections, including glide reflection</td>
<td>CC.2.3.HS.A.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify, find, and compose figure rotations and find angle rotation</td>
<td>CC.2.3.HS.A.1</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 6: Congruent Triangles</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Identify congruent figures and corresponding parts of congruent figures</td>
<td>CC.2.3.HS.A.2</td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Prove that two triangles are congruent using various methods such as SSS, SAS, ASA, AAS, and HL</td>
<td>CC.2.3.HS.A.2, CC.2.3.HS.A.6</td>
<td></td>
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</tr>
<tr>
<td>Prove that parts of two triangles are congruent</td>
<td>CC.2.3.HS.A.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and use properties of isosceles and equilateral triangles</td>
<td>CC.2.3.HS.A.3, CC.2.3.HS.A.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Math Geometry A Units and Objectives

<table>
<thead>
<tr>
<th>Math Geometry A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 7: Triangles</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify and use properties of triangles, such as midsegments, perpendicular bisectors, angle bisectors, medians, and altitudes</td>
<td>CC.2.3.HS.A.3, CC.2.3.HS.A.6, CC.2.3.HS.A.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use indirect reasoning to write proofs</td>
<td></td>
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</tr>
<tr>
<td>Use and apply inequalities in one triangle involving angles and sides</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 8: Semester A Review and Exam</strong></td>
<td>1 week</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Math Geometry B Units and Objectives

<table>
<thead>
<tr>
<th>Math Geometry B Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Review of Geometry A</strong></td>
<td></td>
<td>1 week</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Review the basic terms of geometry</td>
<td></td>
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</tr>
<tr>
<td>Review conditional and biconditional statements</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Review properties of parallel and perpendicular lines</td>
<td>CC.2.3.HS.A.11</td>
<td></td>
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</tr>
<tr>
<td>Review finding triangles congruent</td>
<td></td>
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</tr>
<tr>
<td>Math Geometry B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
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</tr>
<tr>
<td><strong>Unit 3: Similarity</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Write ratios and proportions and use them to solve problems</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Identify similar polygons and the corresponding parts</td>
<td>CC.2.3.HS.A.5, CC.2.3.HS.A.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prove triangles similar using AA~, SAS~, and SSS~</td>
<td>CC.2.3.HS.A.5, CC.2.3.HS.A.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use proportions to find measurements in similar polygons</td>
<td>CC.2.3.HS.A.5, CC.2.3.HS.A.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 4: Right Triangles and Trigonometry</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td></td>
</tr>
<tr>
<td>Find missing length and angle measures in right triangles using the Pythagorean Theorem</td>
<td>CC.2.2.HS.C.9, CC.2.3.HS.A.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify properties of 30°–60°–90° and 45°–45°–90° triangles and the trigonometric functions sine, cosine, and tangent</td>
<td>CC.2.3.HS.A.7</td>
<td></td>
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<tr>
<td>Use theorems to classify triangles as right, obtuse, or acute</td>
<td></td>
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</tr>
<tr>
<td>Identify and use angles of elevation and depression to solve problems</td>
<td>CC.2.3.HS.A.7</td>
<td></td>
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</tr>
<tr>
<td>Math Geometry B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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</tr>
<tr>
<td><strong>Unit 5: Area</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use formulas to find the area of parallelograms, triangles, trapezoids, rhombuses, kites, regular polygons, and circles</td>
<td>CC.2.3.HS.A.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use ratios to find the perimeter and area of similar polygons</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Use trigonometry to find the areas of regular polygons and triangles</td>
<td>CC.2.3.HS.A.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find the measures of central angles, arc measure, arc length, and circumference of circles</td>
<td>CC.2.3.HS.A.8, CC.2.3.HS.A.9, CC.2.3.HS.A.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use arc measure and arc length to find the areas of sectors and segments of circles</td>
<td>CC.2.3.HS.A.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 6: Surface Area and Volume</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td></td>
</tr>
<tr>
<td>Recognize a polyhedron and its parts and cross sections</td>
<td>CC.2.3.HS.A.13</td>
<td></td>
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</tr>
<tr>
<td>Use Euler’s Formula to determine the number of faces, vertices, or edges of a polyhedron</td>
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</tr>
<tr>
<td>Find lateral area and surface area of a prism, cylinder, pyramid, cone, and sphere</td>
<td>CC.2.3.HS.A.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find the volume of a prism, cylinder, pyramid, cone, and sphere</td>
<td>CC.2.3.HS.A.12, CC.2.3.HS.A.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determine if two solids are similar</td>
<td>CC.2.3.HS.A.14</td>
<td></td>
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</tr>
</tbody>
</table>
### Math Geometry B Units and Objectives

<table>
<thead>
<tr>
<th>Unit 7: Circles</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use properties of a tangent to a circle</td>
<td>CC.2.3.HS.A.8</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use congruent chords, arcs, and central angles</td>
<td>CC.2.3.HS.A.8</td>
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<td></td>
</tr>
<tr>
<td>Use perpendicular bisects to chords</td>
<td>CC.2.3.HS.A.8</td>
<td></td>
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</tr>
<tr>
<td>Find the measure of an inscribed angle</td>
<td>CC.2.3.HS.A.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find the measure of an angle formed by a tangent and a chord</td>
<td>CC.2.3.HS.A.8</td>
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</tr>
</tbody>
</table>

#### Unit 8: Semester B Review and Exam

| 1 week                                                                       |                              |                              |                                                                                                                                                                |

### Algebra 2

<table>
<thead>
<tr>
<th>Math Algebra 2 A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1: Focus on Success in Algebra 2</td>
<td></td>
<td>2 days</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. Note: This unit serves as an introduction to the course and is meant to prepare students for success in subsequent units by having them set goals, establish study strategies that reduce anxiety, and review ways to be an active learner.</td>
</tr>
<tr>
<td>Use strategies such as self-assessment and reflection in order to improve mathematical performance</td>
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</tr>
<tr>
<td>Distinguish between effort-based and ability-based models of learning</td>
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</tr>
<tr>
<td>Math Algebra 2 A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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</tr>
<tr>
<td>Assess personal readiness for study and learning</td>
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<tr>
<td>Use resources to assist with goal-setting and attainment</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 2: Expressions, Equations, and Inequalities</strong></td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use variables to represent unknown quantities in order to identify and use patterns to solve problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Represent quantities with algebraic expressions and use properties to manipulate and evaluate algebraic expressions</td>
<td>CC.2.2.HS.D.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use properties to solve equations and inequalities, including compound inequalities and those involving absolute value</td>
<td>CC.2.2.HS.D.1, CC.2.2.HS.D.7, CC.2.2.HS.D.8, CC.2.2.HS.D.9, CC.2.2.HS.D.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write, graph, and use equations and inequalities to model and solve problems</td>
<td>CC.2.2.HS.D.1, CC.2.2.HS.D.7, CC.2.2.HS.D.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 3: Functions, Equations, and Graphs</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify and graph relations and functions, including direct variation and absolute value</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.5, CC.2.2.HS.C.6, CC.2.2.HS.D.7, CC.2.2.HS.D.10</td>
<td></td>
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<tr>
<td>Model real-world data and make predictions using linear</td>
<td>CC.2.2.HS.C.3,</td>
<td></td>
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</tr>
<tr>
<td>Math Algebra 2 A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td>------------------------------------------</td>
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</tr>
<tr>
<td>equations</td>
<td>CC.2.2.HS.C.5, CC.2.2.HS.D.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and graph transformations of functions</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.4, CC.2.2.HS.D.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graph two-variable inequalities, including absolute value inequalities</td>
<td>CC.2.2.HS.C.3, CC.2.2.HS.D.7, CC.2.2.HS.D.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use functions and inequalities to model and solve real-world problems</td>
<td>CC.2.1.HS.F.4, CC.2.2.HS.C.3, CC.2.2.HS.C.5, CC.2.2.HS.D.7</td>
<td></td>
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</tr>
</tbody>
</table>

**Unit 4: Linear Systems**

|                                          |                               | 1 - 2 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Write, solve, and use systems of linear equations to solve problems | CC.2.2.HS.D.7 |               |                         |
| Write, solve, and use systems of linear inequalities to solve problems | CC.2.2.HS.D.7 |               |                         |
| Use linear programming to model and solve real-world problems | CC.2.2.HS.D.7 |               |                         |
| Solve systems in three variables using elimination, substitution, and matrices | |               |                         |

**Unit 5: Quadratic Functions and Equations**

<p>|                                          |                               | 3-4 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
|                                          |                               |           |                         |</p>
<table>
<thead>
<tr>
<th>Math Algebra 2 A Units and Objectives</th>
<th>PA Math Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify and graph quadratic functions and transformations</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.4, CC.2.2.HS.D.7, CC.2.2.HS.D.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model and interpret real-world problems using quadratic equations</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.D.7, CC.2.2.HS.D.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write and solve quadratic equations by graphing, factoring, and using the quadratic formula</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.D.2, CC.2.2.HS.D.7, CC.2.2.HS.D.8, CC.2.2.HS.D.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify, graph, and solve quadratic equations with complex solutions</td>
<td>CC.2.1.HS.F.6, CC.2.1.HS.F.7, CC.2.2.HS.D.8, CC.2.2.HS.D.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve and graph systems of linear and quadratic equations and inequalities</td>
<td>CC.2.1.HS.F.7, CC.2.2.HS.C.2, CC.2.2.HS.D.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 6: Polynomials and Polynomial Functions</strong></td>
<td></td>
<td><strong>2 - 3 weeks</strong></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify the number of zeros and degree of a polynomial equation</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.D.1, CC.2.2.HS.D.4</td>
<td></td>
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</tr>
<tr>
<td>Find zeros of a polynomial equation by factoring or graphing and finding x-intercepts</td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.D.1, CC.2.2.HS.D.4</td>
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</tr>
<tr>
<td>Math Algebra 2 A Units and Objectives</td>
<td>PA Math Standards Addressed</td>
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<td>Instructional Activities</td>
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<tr>
<td><strong>Write and use polynomial functions to solve problems</strong></td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.D.3, CC.2.2.HS.D.4, CC.2.2.HS.D.5</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td><strong>Model situations using exponential functions</strong></td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.5, CC.2.2.HS.C.6, CC.2.2.HS.D.1, CC.2.2.HS.D.7</td>
<td>2- 3 weeks</td>
<td></td>
</tr>
<tr>
<td><strong>Solve logarithmic equations using exponents</strong></td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.C.5, CC.2.2.HS.D.2, CC.2.2.HS.D.7, CC.2.2.HS.D.10</td>
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<tr>
<td><strong>Solve exponential equations using logarithms</strong></td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.C.5, CC.2.2.HS.D.2, CC.2.2.HS.D.7, CC.2.2.HS.D.10</td>
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<tr>
<td><strong>Graph exponential and logarithmic functions</strong></td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.C.5</td>
<td>1 week</td>
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<tr>
<td><strong>Unit 8: Semester A Review and Exam</strong></td>
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<tr>
<td>Math Algebra 2 B Units and Objectives</td>
<td>PA Math Standards Addressed</td>
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<td>Instructional Activities</td>
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<tr>
<td>Unit 1: Review of Algebra 2 A</td>
<td></td>
<td>1 week</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Review expressions, equations, and inequalities</td>
<td>CC.2.2.HS.D.1, CC.2.2.HS.D.7, CC.2.2.HS.D.8, CC.2.2.HS.D.9, CC.2.2.HS.D.10</td>
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<tr>
<td>Review linear systems</td>
<td>CC.2.2.HS.D.7</td>
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<tr>
<td>Review quadratic functions and equations</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.4, CC.2.2.HS.D.2, CC.2.2.HS.D.7, CC.2.2.HS.D.8, CC.2.2.HS.D.10, CC.2.1.HS.F.6, CC.2.1.HS.F.7</td>
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<tr>
<td>Review polynomials and polynomial functions</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.D.1, CC.2.2.HS.D.3, CC.2.2.HS.D.4, CC.2.2.HS.D.5</td>
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<tr>
<td>Review exponential and logarithmic functions</td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.5, CC.2.2.HS.C.6, CC.2.2.HS.D.1, CC.2.2.HS.D.2, CC.2.2.HS.D.7, CC.2.2.HS.D.10</td>
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<tr>
<td><strong>Unit 2: Radical Functions and Rational Exponents</strong></td>
<td><strong>To simplify radical expressions and solve radical equations</strong></td>
<td>CC.2.1.HS.F.1, CC.2.2.HS.D.1, CC.2.2.HS.D.7, CC.2.2.HS.D.9</td>
<td>1 - 2 weeks</td>
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<td><strong>To determine the domain of radical functions and find extraneous solutions</strong></td>
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<tr>
<td><strong>To find and graph inverse functions</strong></td>
<td>CC.2.2.HS.C.4</td>
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<tr>
<td><strong>Unit 3: Rational Functions</strong></td>
<td><strong>Write and graph functions to solve problems</strong></td>
<td>CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.4, CC.2.2.HS.D.10</td>
<td>1 - 2 weeks</td>
</tr>
<tr>
<td><strong>Write and interpret rational expressions to solve problems</strong></td>
<td>CC.2.2.HS.C.3, CC.2.2.HS.D.1, CC.2.2.HS.D.6</td>
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<tr>
<td><strong>Apply skills in a variety of contexts on the unit test</strong></td>
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<tr>
<td><strong>Unit 4: Sequences and Series</strong></td>
<td></td>
<td>2-3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Math Algebra 2 B Units and Objectives</td>
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<td>Instructional Activities</td>
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<tr>
<td>Identify mathematical patterns found in a sequence</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.3, CC.2.2.HS.C.5, CC.2.2.HS.D.1</td>
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<tr>
<td>Identify mathematical sequences and series as arithmetic or geometric</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.3, CC.2.2.HS.C.5, CC.2.2.HS.D.1</td>
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<tr>
<td>Apply a formula to find the nth term of an arithmetic or geometric sequence</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.3, CC.2.2.HS.C.5, CC.2.2.HS.D.1</td>
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<tr>
<td>Write and apply recursive and expresssive rules for arithmetic and geometric sequences</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.3, CC.2.2.HS.C.5, CC.2.2.HS.D.1</td>
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<tr>
<td>Apply a formula to find the sum of an arithmetic or geometric series</td>
<td>CC.2.2.HS.C.3, CC.2.2.HS.D.1, CC.2.2.HS.D.2</td>
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<tr>
<td>Unit 5: Quadratic Relations and Conic Sections</td>
<td></td>
<td>1 - 2 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Identify conic sections</td>
<td>CC.2.2.HS.D.10</td>
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<tr>
<td>Write the equation of a circle, a parabola, an ellipse, and a hyperbola</td>
<td>CC.2.3.HS.A.10</td>
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<tr>
<td>Graph a circle, a parabola, an ellipse, and a hyperbola</td>
<td>CC.2.3.HS.A.10</td>
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<tr>
<td>Model and solve problems using conic sections</td>
<td>CC.2.3.HS.A.10</td>
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<tr>
<td><strong>Unit 6: Probability and Statistics</strong></td>
<td></td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Determine the number of permutations and combinations</td>
<td>CC.2.4.HS.B.7</td>
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<tr>
<td>Find the theoretical or experimental probability of dependent, independent, and conditional events</td>
<td>CC.2.4.HS.B.4, CC.2.4.HS.B.6, CC.2.4.HS.B.7</td>
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<tr>
<td>Calculate and apply measures of central tendency, the standard deviation, and the variance of a set of values</td>
<td>CC.2.4.HS.B.5</td>
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<tr>
<td>Identify and evaluate sampling methods</td>
<td>CC.2.4.HS.B.4, CC.2.4.HS.B.5</td>
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<tr>
<td>Apply the properties of binomial and normal distributions</td>
<td>CC.2.4.HS.B.7</td>
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<tr>
<td><strong>Unit 7: Periodic Functions and Trigonometry</strong></td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.4</td>
<td>2 - 3 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Determine the cycle, period, and amplitude of a periodic function and relate it to positions on the unit circle</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.4</td>
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<tr>
<td>Graph the sine, cosine, and tangent functions</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2</td>
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<tr>
<td>Graph the secant, cosecant, and cotangent functions</td>
<td>CC.2.2.HS.C.1, CC.2.2.HS.C.2</td>
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<tr>
<td>Measure angles using radian measure</td>
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<tr>
<td>Apply inverse trigonometric functions to solve trigonometric equations</td>
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<tr>
<td><strong>Unit 8: Semester B Review and Exam</strong></td>
<td></td>
<td>1 week</td>
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</table>
SCIENCE K-12
## Kindergarten

<table>
<thead>
<tr>
<th>Science KA Units and Objectives</th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: The Nature of Science</strong></td>
<td></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 2: Solve Problems</strong></td>
<td></td>
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<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 3: Living and Nonliving Things</strong></td>
<td></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe characteristics of living and nonliving things</td>
<td>3.1.K.A1</td>
<td>4.1.K.A</td>
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<tr>
<td>Differentiate between living and nonliving things</td>
<td>3.1.K.A1</td>
<td>4.1.K.A</td>
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</table>
## Science KA Units and Objectives

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<tbody>
<tr>
<td>Identify the essential needs of all living things</td>
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<tr>
<td>Compare characteristics of animals that make them alike and different from other animals</td>
<td>3.1.K.A3, 3.1.K.A5</td>
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</tr>
<tr>
<td>Compare characteristics of plants that make them alike and different from other plants</td>
<td>3.1.K.A3</td>
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</table>

### Unit 4: Plants and Animals

<table>
<thead>
<tr>
<th>Unit 4: Plants and Animals</th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classify young animals and their parents</td>
<td>3.1.K.B1</td>
<td></td>
<td>2-3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe how animals, plants, and people change as they grow</td>
<td>3.1.K.B1</td>
<td>4.4.K.A, 4.4.K.C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distinguish between plants and animals that live on land and in water</td>
<td>3.1.K.A5</td>
<td>4.2.K.B, 4.2.K.C</td>
<td></td>
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</tr>
<tr>
<td>Observe and collect data to show the interdependence between plants, animals, humans, and the Earth</td>
<td>3.1.K.A5</td>
<td>4.2.K.C</td>
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## Science KB Units and Objectives

<table>
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<tr>
<th>Science KB Units and Objectives</th>
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<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td>Unit 1: More Plants and Animals</td>
<td></td>
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<td>2-3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Science KB Units and Objectives</td>
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<tr>
<td>Classify young animals and their parents</td>
<td>3.1.K.B1</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Describe how animals, plants, and people change as they grow</td>
<td>3.1.K.B1</td>
<td>4.4.K.A, 4.4.K.C</td>
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</tr>
<tr>
<td>Distinguish between plants and animals that live on land and in water</td>
<td>3.1.K.A5</td>
<td>4.2.K.B, 4.2.K.C</td>
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</tr>
<tr>
<td>Observe and collect data to show the interdependence between plants, animals, humans, and the Earth</td>
<td>3.1.K.A5</td>
<td>4.2.K.C</td>
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</table>

**Unit 2: Earth and Sky**

| | | | 4-5 Weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Investigate the Earth’s covering | 3.3.K.A1 | | | |
| Identify characteristics of the day and night sky | | | | |
| Identify characteristics of each season | 3.1.K.C2, 3.3.K.A5 | 4.1.K.E | | |
| Summarize the relationship between the sun’s position and the time of day | | | | |
| Compare and contrast weather patterns | 3.3.K.A5 | | | |

**Unit 3: All About Objects**

| | | | 4-5 Weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Observe and tell about objects using the five senses | 3.1.K.A9 | | | |
| Analyze and categorize objects by their composition and characteristics | 3.2.K.A1 | | | |
| Explore how various objects can be used based on their characteristics | 3.1.K.A9 | | | |
### Grade 1

<table>
<thead>
<tr>
<th>Science 1A Units and Objectives</th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Unit 1: Be a Scientist</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Describe the scientific method</td>
<td>3.1.1.A9</td>
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<tr>
<td>Explain why science safety is important</td>
<td>3.1.1.C4</td>
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<tr>
<td><strong>Unit 2: Plants are Living Things</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
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<tr>
<td>Identify living and nonliving things</td>
<td>3.1.1.A1, 3.1.1.A2,</td>
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<tr>
<td>Describe plant parts</td>
<td>3.1.1.A5, 3.1.1.B1</td>
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<tr>
<td>Compare different plants</td>
<td>3.1.1.A5</td>
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<tr>
<td><strong>Unit 3: Plants Grow and Change</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td></td>
</tr>
<tr>
<td>Compare flowers, fruits, and seeds</td>
<td>3.1.1.A5</td>
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<tr>
<td>Describe plant life cycles</td>
<td>3.1.1.A3, 3.1.1.B1</td>
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<td>Identify desert, forest, and arctic environments</td>
<td>3.1.1.C3, 3.3.1.A1</td>
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<td><strong>Unit 4: All About Animals</strong></td>
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<td>2 - 3 Weeks</td>
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<tr>
<td>Explain how different animals survive</td>
<td>3.1.1.A2</td>
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<tr>
<td>Describe what animals eat</td>
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<tr>
<td>Identify animal cycles</td>
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<td><strong>Unit 5: Places to Live</strong></td>
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<td>Describe land habitats</td>
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<td>Describe water habitats</td>
<td>3.1.1.C1, 3.3.1.A4</td>
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<td>Explain how plants and animals can live in the same habitat</td>
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<td><strong>Unit 6: Looking at Earth</strong></td>
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<td>2 - 3 Weeks</td>
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<td>Identify different landforms</td>
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<td>Classify rocks and soil</td>
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<td>Explain weathering and erosion</td>
<td>3.3.1.C1</td>
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<td><strong>Unit 7: Caring for Earth</strong></td>
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<td>Define natural resources</td>
<td>3.1.1.A2</td>
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<td>Explain how people use natural resources</td>
<td>3.1.1.A2</td>
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<td>Explain the importance of reducing, reusing, and recycling</td>
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<td>Identify weather conditions</td>
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<td>Explain how clouds form</td>
<td>3.3.1.A5</td>
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<tr>
<td>Describe weather conditions during different seasons</td>
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<td><strong>Unit 2: The Sky</strong></td>
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<td>Explain why living things need the sun</td>
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<td>Describe the movement of Earth, the moon, and the sun</td>
<td>3.3.1.B1, 3.3.3.B1</td>
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<td>Explain the movement of the planets</td>
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<td><strong>Unit 3: Matter Everywhere</strong></td>
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<tr>
<td>Describe the properties of matter</td>
<td>3.2.1.A1, 3.2.1.A5</td>
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<td>Identify solids, liquids, and gases</td>
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<td>Explain why everything is made of matter</td>
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<td>Explain how mixtures form</td>
<td>3.2.1.A1</td>
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<td>Describe how heat changes matter</td>
<td>3.2.1.A3, 3.2.1.A4</td>
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<td>Define freezing, melting, and evaporation</td>
<td>3.2.1.A1, 3.2.1.A4</td>
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<td><strong>Unit 5: On the Move</strong></td>
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<td>Explain position and motion</td>
<td>3.2.1.B1</td>
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<td>Identify different forces</td>
<td>3.2.1.B1</td>
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<td>Describe the properties of magnets</td>
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<td><strong>Unit 6: Energy Everywhere</strong></td>
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<tr>
<td>Describe different sources of heat</td>
<td>3.2.1.B6</td>
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<td>Explain what causes sounds</td>
<td>3.2.1.B2</td>
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<td>Identify uses of electricity</td>
<td>3.2.1.B2</td>
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## Grade 2

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<tr>
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<tr>
<td>Identify basic science skills</td>
<td>3.1.2.A9, 3.1.2.B6, 3.1.2.C4, 3.2.2.A6, 3.2.2.B7, 3.3.2.A7, 3.3.2.B3</td>
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<td>Practice using the scientific method</td>
<td>3.1.2.A9, 3.1.2.B6, 3.1.2.C4, 3.2.2.A6, 3.2.2.B7, 3.3.2.A7, 3.3.2.B3</td>
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<td>Explain why safe science is important</td>
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<td><strong>Unit 2: Plants</strong></td>
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<td>Explain why plants are living things</td>
<td>3.1.2.A3</td>
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<td>2 - 3 Weeks</td>
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<td>Identify the different parts of a plant</td>
<td>3.1.2.A5</td>
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<td>Describe the life cycle of a plant</td>
<td>3.1.2.A3</td>
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<td><strong>Unit 3: Animals</strong></td>
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<td>Identify different types of animals</td>
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<tr>
<td>Describe the life cycle of an animal</td>
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<tr>
<td>Explain why animals use camouflage</td>
<td>3.1.2.C2</td>
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<td><strong>Unit 4: Looking at Habitats</strong></td>
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<tr>
<td>Describe different plant and animal habitats</td>
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<td>Define a food chain and a food web</td>
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<td>Explain how and why habitats change</td>
<td>3.1.2.C3</td>
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<td><strong>Unit 5: Kinds of Habitats</strong></td>
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<tr>
<td>Explain how plants and animals live in different habitats</td>
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<tr>
<td>Describe deserts and how living things survive there</td>
<td>3.1.2.C2</td>
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<tr>
<td>Explain how plants and animals live in the ocean</td>
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<td>Describe Earth's layers and its landforms</td>
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<tr>
<td>Identify sources of water on Earth</td>
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<tr>
<td>Explain how wind and water change Earth's surface</td>
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<td><strong>Unit 7: Earth's Resources</strong></td>
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<td>Describe rocks and minerals and how they are used</td>
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<td>Explain how soil forms and describe what's in soil</td>
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<td>Identify ways natural resources are used</td>
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<td>Describe how weather is measured</td>
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<td>Illustrate and explain the water cycle</td>
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<td>Understand how weather can be predicted</td>
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<td>Explain what causes day, night, and seasons</td>
<td>3.3.2.B1</td>
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<td>Describe the planets in the solar system</td>
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<td>Identify the moon’s phases</td>
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<td>Define matter and its properties</td>
<td>3.2.2.A5</td>
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<tr>
<td>Describe solids, liquids, and gases</td>
<td>3.2.2.A5, 3.3.2.A4</td>
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<td>Explain how matter is measured</td>
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<td>Identify chemical changes in matter</td>
<td>3.2.2.A3, 3.2.2.A4, 3.2.2.A5, 3.2.2.B2</td>
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<td>Identify physical changes in matter</td>
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<td>Observe how matter changes state</td>
<td>3.2.2.A3, 3.2.2.A4, 3.2.2.A5, 3.2.2.B2, 3.3.2.A4</td>
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<tr>
<td>Describe the forces of gravity and friction</td>
<td>3.3.2.B2</td>
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</tr>
<tr>
<td>Explain an object’s position and motion</td>
<td>3.3.2.B1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify magnetic objects</td>
<td>3.3.2.B4</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 6: Using Energy</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe how Earth receives energy from the sun</td>
<td>3.2.2.B2, 3.2.2.B6</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
## Science 2B Units and Objectives

<table>
<thead>
<tr>
<th>Explain how sounds are produced</th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

### Grade 3

## Science 3A Units and Objectives

### Unit 1: Be a Scientist

<table>
<thead>
<tr>
<th>Explain why the scientific method is important to scientists</th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.1.3.A9, 3.1.3.B6, 3.1.3.C4, 3.2.3.A6, 3.2.3.B7, 3.3.3.A7, 3.3.3.B3</td>
<td>4.1.3.F, 4.2.3.D, 4.3.3.C, 4.4.3.C, 4.4.3.E, 4.5.3.F</td>
<td>1-2 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
</tbody>
</table>

| Learn how scientists develop hypotheses and use inquiry skills | 3.1.3.C4 | 4.1.3.F, 3.1.3.A9, 4.2.3.D, 4.4.3.C, 4.5.3.F |  | |

| Recognize that safety is very important in the field of science | 3.1.3.A9, 3.1.3.C4 | 4.1.3.F, 4.2.3.D |  | |

### Unit 2: A Look At Living Things

<table>
<thead>
<tr>
<th></th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
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</table>

<p>|                                    |                               |                                | 2-3 Weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |</p>
<table>
<thead>
<tr>
<th>Science 3A Units and Objectives</th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize the differences between living things and nonliving things</td>
<td>3.1.3.A1</td>
<td>4.1.3.A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe what plants and animals need to survive</td>
<td>3.1.3.A2, 3.1.3.A3, 3.1.3.C2</td>
<td>4.4.3.A, 4.4.3.B, 4.5.3.A</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain how plants and animals are classified into groups</td>
<td>3.1.3.A1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify important plant and animal structures and functions</td>
<td>3.1.3.A5</td>
<td></td>
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<tr>
<td><strong>Unit 3: Living Things Grow and Change</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td></td>
</tr>
<tr>
<td>Identify different life cycles of plants and animals</td>
<td>3.1.3.A3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Explain reproduction and identify inherited traits and learned traits</td>
<td>3.1.3.B1, 3.1.3.B5</td>
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</tr>
<tr>
<td>Develop a hypothesis and test it with an experiment</td>
<td>3.1.3.B6</td>
<td>4.4.3.C, 4.5.3.F</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 4: Living Things in Ecosystem</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td></td>
</tr>
<tr>
<td>Explain what an ecosystem is and how energy flows throughout an ecosystem</td>
<td>3.2.3.B1, 3.2.3.B6</td>
<td>4.1.3.C, 4.1.3.E, 4.2.3.A, 4.2.3.B, 4.2.3.C, 4.1.3.D</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Define food chains and food webs and how they vary in different ecosystems</td>
<td></td>
<td>4.1.3.D</td>
<td></td>
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</tr>
<tr>
<td>Identify various examples of plant and animal adaptations and explain how</td>
<td>3.1.3.C1</td>
<td>4.1.3.D, 4.5.3.A</td>
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</tr>
<tr>
<td>Science 3A Units and Objectives</td>
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<tr>
<td>adaptations help organisms survive</td>
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<tr>
<td>Explain why camouflage is very important to animals that use it</td>
<td>3.1.3.C2</td>
<td>4.1.3.D</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 5: Changes in the Ecosystem</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain how living things can change the environment that they live in</td>
<td>3.1.3.C1</td>
<td>4.1.3.E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify how environmental changes can affect living things</td>
<td>3.1.3.C1</td>
<td>4.1.3.D, 4.5.3.C</td>
<td></td>
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</tr>
<tr>
<td>Describe how scientists use fossils to learn about organisms that lived in the past</td>
<td>3.1.3.C3</td>
<td></td>
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<tr>
<td>Recognize the difference between organisms that are endangered and those that are extinct</td>
<td></td>
<td>4.1.3.E, 4.1.3.D</td>
<td></td>
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<tr>
<td><strong>Unit 6:</strong></td>
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<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify features on Earth’s surface, including features on the ocean floor</td>
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<tr>
<td>Explain how earthquakes and volcanic eruptions occur</td>
<td>3.2.3.B2</td>
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<tr>
<td>Identify the effects of landslides and floods</td>
<td></td>
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<td>Explain Earth’s layered interior</td>
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<tr>
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<td>PA Ecology Standards Addressed</td>
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<td>Instructional Activities</td>
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<tr>
<td><strong>Unit 1: Using Earth Resources</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify different mineral properties and explain the three main types of rocks</td>
<td>3.3.3.A2</td>
<td>4.3.3.B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain how different soils can hold different quantities of water</td>
<td>3.3.3.A1</td>
<td>4.3.3.B</td>
<td></td>
<td></td>
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<tr>
<td>Define fossil fuels and explain how fossils form</td>
<td></td>
<td>4.3.3.B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain why air and water are considered valuable resources and investigate air pollution</td>
<td></td>
<td>4.3.3.A, 4.3.3.B, 4.5.3.C</td>
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</tr>
<tr>
<td><strong>Unit 2: Changes in the Weather</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Define weather and explain different types of weather</td>
<td>3.3.3.A4, 3.3.3.A5</td>
<td></td>
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</tr>
<tr>
<td>Identify different stages of the water cycle and how it relates to weather</td>
<td>3.3.3.A4, 3.3.3.A5</td>
<td></td>
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<tr>
<td>Identify global climates and seasonal differences across the world</td>
<td>3.3.3.A4, 3.3.3.A5</td>
<td></td>
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</tr>
<tr>
<td>Science 3B Units and Objectives</td>
<td>PA Science Standards Addressed</td>
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<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td><strong>Unit 3: Planets, Moons, and Stars</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain the relationship between Earth and the sun and describe what causes seasons</td>
<td>3.3.3.B1</td>
<td></td>
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</tr>
<tr>
<td>Identify phases of the moon and describe the moon's features</td>
<td>3.3.3.B1</td>
<td></td>
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</tr>
<tr>
<td>Describe the solar system and identify the inner and outer planets</td>
<td>3.3.3.B1</td>
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<tr>
<td>Explain stars and constellations and identify the locations in which they can be viewed</td>
<td>3.3.3.B1</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 4: Observing Matter</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Define matter and describe various properties of matter</td>
<td>3.2.3.A4, 3.2.3.A3, 3.2.3.A5</td>
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<tr>
<td>Measure matter using standard units and explain the difference between mass and weight</td>
<td>3.2.3.A1</td>
<td></td>
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</tr>
<tr>
<td>Differentiate between solids, liquids, and gases</td>
<td>3.2.3.A4, 3.2.3.A3</td>
<td>4.3.3.B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science 3B Units and Objectives</td>
<td>PA Science Standards Addressed</td>
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<tr>
<td><strong>Unit 5: Changes in Matter</strong></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
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<tr>
<td>Recognize how water changes temperature in different states</td>
<td>3.3.3.A4</td>
<td></td>
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<tr>
<td>Investigate the freezing point of saltwater and freshwater</td>
<td>3.2.3.A4 4.3.3.B</td>
<td></td>
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</tr>
<tr>
<td>Differentiate between physical changes and chemical changes</td>
<td>3.2.3.A4</td>
<td></td>
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<tr>
<td>Explain what a mixture is</td>
<td>3.2.3.A4</td>
<td></td>
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<tr>
<td><strong>Unit 6: Forces and Motion</strong></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td></td>
</tr>
<tr>
<td>Define position, motion, speed, friction, gravity, and magnetism</td>
<td>3.2.3.B4</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Describe how forces relate to motion</td>
<td>3.2.3.B1, 3.2.3.B2</td>
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<tr>
<td>Investigate how distance affects the force of a magnet</td>
<td>3.2.3.B4</td>
<td></td>
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<tr>
<td>Differentiate between energy and work and identify different forms of energy</td>
<td>3.2.3.B6</td>
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</tbody>
</table>
### Science 3B Units and Objectives

<table>
<thead>
<tr>
<th>Science 3B Units and Objectives</th>
<th>PA Science Standards Addressed</th>
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<th>Instructional Activities</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit 7: Forms of Energy</strong></td>
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<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe heat transfer and identify insulators and conductors</td>
<td>3.2.3.B2, 3.2.3.B4, 3.2.3.B3, 3.2.3.B6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain how sound is produced and define pitch and volume</td>
<td>3.2.3.B2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain how light travels and describe how colors form</td>
<td>3.2.3.B2, 3.2.3.B5</td>
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</tbody>
</table>

### Grade 4

<table>
<thead>
<tr>
<th>Science 4A Units and Objectives</th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Unit 1: Be a Scientist</strong></td>
<td></td>
<td></td>
<td>1 - 2 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain why the scientific method is important to scientists</td>
<td>3.1.4.A9, 3.1.4.B6, 3.1.4.C4, 3.2.4.A6, 3.2.4.B7, 3.3.4.A7, 3.3.4.B3</td>
<td>4.1.4.F, 4.2.4.D, 4.3.4.C, 4.4.4.E, 4.5.4.F</td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Unit 2: Kingdoms of Life</td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td></td>
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<tr>
<td>Science 4A Units and Objectives</td>
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<tr>
<td><strong>Unit 3: The Animal Kingdom</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 4: Exploring Ecosystems</strong></td>
<td></td>
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<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
</tbody>
</table>

**Explaining the difference between ecosystems, communities, and populations**


**Identify and describe Earth’s major biomes**


**Explain how energy flows throughout an ecosystem and describe food webs**


**Be able to discuss predator-prey relationships**

| 3.1.4.A2, 3.1.4.A8 | 4.1.4.D |

S4.A.3, S4.A.3.1.2
<table>
<thead>
<tr>
<th>Science 4A Units and Objectives</th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 5: Surviving in Ecosystems</strong></td>
<td>Explain how adaptations allow plants and animals to survive in different environments</td>
<td>3.1.4.A2, 3.1.4.A5, 3.1.4.C1, 3.1.4.C2</td>
<td>4.1.4.D, 4.3.4.A, 4.5.4.E</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>S4.A.1, S4.A.1.1.1, S4.A.3, S4.A.3.1.3, S4.B.2, S4.B.2.1.1, S4.B.2.1.2</td>
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<tr>
<td><strong>Unit 6: Shaping Earth</strong></td>
<td><strong>PA Science Standards Addressed</strong></td>
<td><strong>PA Ecology Standards Addressed</strong></td>
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<td><strong>Instructional Activities</strong></td>
<td><strong>Assessment Anchors and Eligible Content</strong></td>
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<tr>
<td>Describe Earth’s layers and explain how plate movement causes earthquakes and volcanic eruptions to occur</td>
<td>3.3.4.A1, 3.3.4.A6</td>
<td>4.1.4.E</td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>S4.D.1, S4.D.1.1.2, S4.D.1.1.3</td>
</tr>
<tr>
<td>Identify different landforms and features on the ocean floor</td>
<td>3.1.4.C2, 3.3.4.A1, 3.3.4.A2, 3.3.4.A4, 3.3.4.A6</td>
<td>4.1.4.E</td>
<td></td>
<td></td>
<td>S4.D.1, S4.D.1.1.2, S4.D.1.3.1</td>
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## Unit 7: Saving the Earth’s Resources

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<tbody>
<tr>
<td>Explain mineral classification and describe the rock cycle</td>
<td>4.3.4.B</td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>S4.D.1, S4.D.1.1.3,</td>
</tr>
<tr>
<td>Define fossil fuels and identify renewable and nonrenewable resources</td>
<td>3.3.4.A1, 3.3.4.A2</td>
<td>4.3.4.B, 4.5.4.A</td>
<td></td>
<td></td>
<td>S4.D.1, S4.D.1.2.1, S4.D.1.2.2</td>
</tr>
<tr>
<td>Explain why land, water, and air are considered resources</td>
<td>3.1.4.C1, 3.3.4.A2, 3.3.4.A4</td>
<td>4.3.4.B, 4.5.4.A, 4.5.4.D</td>
<td></td>
<td></td>
<td>S4.D.1, S4.D.1.2.1, S4.D.1.2.2, S4.D.1.2.3</td>
</tr>
<tr>
<td>Discuss the effects of pollution and identify ways to conserve natural resources</td>
<td>3.1.4.C1</td>
<td>4.3.4.B, 4.5.4.A, 4.5.4.C</td>
<td></td>
<td></td>
<td>S4.D.1, S4.D.1.2.1, S4.D.1.2.2, S4.B.3, S4.B.3.3.5</td>
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<tr>
<td>Science 4B Units and Objectives</td>
<td>PA Science Standards Addressed</td>
<td>PA Ecology Standards Addressed</td>
<td>Estimated Instructional Time</td>
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<tr>
<td><strong>Unit 1: Weather and Climate</strong></td>
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<td>S4.D.2, S4.D.2.1.3</td>
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<tr>
<td>Compare and contrast weather and climate and describe how weather can be measured</td>
<td>3.3.4.A5, 3.3.4.A6</td>
<td></td>
<td>2 - 3 Weeks</td>
<td>S4.D.1, S4.D.1.3.2, S4.D.2, S4.D.2.1.1</td>
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<tr>
<td>Explain the water cycle and identify different cloud types</td>
<td>3.1.4.C1, 3.3.4.A5</td>
<td></td>
<td>4.1.4.B</td>
<td>S4.D.2, S4.D2.1.2</td>
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<tr>
<td>Explain air masses and how hot and cold air affects the weather</td>
<td>3.1.4.C1, 3.3.4.A5</td>
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<td>S4.D.2, S4.D.2.1.2</td>
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<tr>
<td>Identify different types of climate on Earth</td>
<td>3.1.4.C1, 3.3.4.A5</td>
<td></td>
<td>4.2.4.B</td>
<td>S4.D.2, S4.D.2.1.2</td>
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<tr>
<td><strong>Unit 2: The Solar System and Beyond</strong></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Compare and contrast the inner and outer planets</td>
<td>3.3.4.B1, 3.3.4.B2</td>
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<td>$S4.D.3, S4.D.3.1.1$</td>
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<tr>
<td>Be able to discuss stars and what they are made of</td>
<td>3.3.4.B1, 3.3.4.B2</td>
<td></td>
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<td>$S4.D.3, S4.D.3.1.1$</td>
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<tr>
<td><strong>Unit 3: Properties of Matter</strong></td>
<td>Explain the states of matter and compare and contrast properties of matter</td>
<td>3.2.4.A1</td>
<td>3.2.4.A1</td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Be able to discuss how the properties of matter can be measured</td>
<td>3.2.4.A1</td>
<td>3.2.4.A1, 3.2.4.A2</td>
<td>2 - 3 Weeks</td>
<td>S4.C.1, S4.C.1.1.1, S4.C.1.1.2,</td>
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<td></td>
<td>Explain the periodic table and be able to discuss how the elements are arranged in the periodic table</td>
<td>3.2.4.A1</td>
<td>3.2.4.A1, 3.2.4.A2</td>
<td>2 - 3 Weeks</td>
<td>S4.C.1, S4.C.1.1.1, S4.C.1.1.2,</td>
</tr>
<tr>
<td><strong>Unit 4: A Matter of Its Changes</strong></td>
<td>Differentiate between physical and chemical changes</td>
<td>3.2.4.A1, 3.2.4.A5</td>
<td>3.2.4.A1, 3.2.4.A5</td>
<td>2 - 3 Weeks</td>
<td>S4.A.1, S4.A.1.3.3</td>
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<td>Science 4B Units and Objectives</td>
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<tr>
<td>Explain what a mixture is and describe how mixtures can be separated</td>
<td>3.2.4.A4</td>
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<td>S4.A.1,S4.A.1.1.1</td>
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<tr>
<td>Define compounds and explain their properties</td>
<td>3.2.4.A4</td>
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<td>S4.A.1 , S4.A.1.1.1, S4.C.1.1.1</td>
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<tr>
<td>Define and provide examples of acids and bases</td>
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<tr>
<td><strong>Unit 5: Forces</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Describe the six simple machines and what they are used for</td>
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<td><strong>Unit 6: Energy</strong></td>
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<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
<td>S4.C.2, S4.C.2.1.1, S4.C.2.1.2, S4.A.1, S4.A.1.1.1</td>
</tr>
<tr>
<td>Explain how light can be absorbed, reflected, or refracted</td>
<td>3.2.4.B2, 3.2.4.B3, 3.2.4.B5, 3.2.4.B6</td>
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<td>S4.C.2, S4.C.2.1.1, S4.C.2.1.2, S4.A.1, S4.A.1.1.1</td>
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<tr>
<td>Define electromagnets and explain magnetic fields</td>
<td>3.2.4.B2, 3.2.4.B4, 3.2.4.B6</td>
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<td></td>
<td>S4.A.1, S4.A.1.1.1</td>
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### Grade 5

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<tr>
<th>Science 5A Units and Objectives</th>
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<tbody>
<tr>
<td><strong>Unit 1: Be a Scientist</strong></td>
<td></td>
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<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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</table>

Explain how scientists use the scientific method to solve scientific problems  
3.1.5.A9, 3.1.5.B6, 3.1.5.C4, 3.2.5.A6, 3.2.5.B7, 3.3.5.A7, 3.3.5.B3, 4.2.5.D, 4.1.5.F, 4.4.5.E, 4.5.5.F

Identify why safety procedures are important when conducting science experiments  
3.1.5.A9, 3.1.5.B6, 3.1.5.C4, 3.2.5.A6, 3.2.5.B7, 3.3.5.A7, 3.3.5.B3, 4.2.5.D

Describe how a hypothesis is formed and how scientists use inquiry skills  
3.1.5.A9, 3.1.5.B6, 3.1.5.C4, 3.2.5.A6, 3.2.5.B7, 3.3.5.A7, 3.3.5.B3, 4.2.5.D, 4.1.5.F

**Unit 2: Cells and Kingdom**  
2 - 3 Weeks

Explain the similarities and differences between plant and animal cells  
3.1.5.A5, 3.1.5.A3

Describe how living things are organized into groups and identify organisms in the plant, animal, and fungi kingdoms  
3.1.5.A3 4.1.5.C
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<tbody>
<tr>
<td>Identify plant parts and their functions, including how leaves carry out photosynthesis</td>
<td>3.1.5.A2, 3.1.5.A5</td>
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<tr>
<td>List differences between invertebrates and vertebrates</td>
<td>3.1.5.A3</td>
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<tr>
<td>Summarize how body systems in animals work together to allow an animal to survive and perform functions</td>
<td>3.1.5.B1, 3.1.5.C1, 3.1.5.C2</td>
<td>4.1.5.D</td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td><strong>Unit 3: Parents and Offspring</strong></td>
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<tr>
<td>Compare and contrast sexual and asexual reproduction</td>
<td>3.1.5.B1, 3.1.5.C1</td>
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<tr>
<td>Explain the different life cycles of plants, including those of the angiosperm and conifer</td>
<td>3.1.5.A3</td>
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<tr>
<td>Explain the different life cycles of animals, including complete and incomplete metamorphosis</td>
<td>3.1.5.A3</td>
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<tr>
<td>Identify inherited traits and learned behaviors</td>
<td>3.1.5.B1</td>
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<td><strong>Unit 4: Interactions in Ecosystems</strong></td>
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<tr>
<td>Describe how energy flows throughout an ecosystem and explain food chains and food webs</td>
<td>4.1.5.A, 4.1.5.B, 4.1.5.C, 4.1.5.D</td>
<td></td>
<td>2 - 3 Weeks</td>
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<tr>
<td>Identify structural and behavioral adaptations in animals and structural adaptations in plants</td>
<td>3.1.5.C1, 3.1.5.C2</td>
<td>4.1.5.A, 4.1.5.B, 4.1.5.C, 4.1.5.D, 4.4.5.A</td>
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<tr>
<td>Explain how living things compete for natural resources</td>
<td></td>
<td>4.1.5.A, 4.1.5.B, 4.1.5.C, 4.1.5.D, 4.4.5.C</td>
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<tr>
<td>Define the following terms: habitat, niche, population, community</td>
<td></td>
<td>4.1.5.A, 4.1.5.B, 4.1.5.C, 4.1.5.D</td>
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<tr>
<td><strong>Unit 5: Ecosystems and Biomes</strong></td>
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<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Identify naturally-occurring cycles in ecosystems and explain how recycling and composting benefit the environment</td>
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<td>4.5.5.D</td>
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<tr>
<td>Identify different ways in which ecosystems can change and describe how a changed ecosystem affects the living things in it</td>
<td>3.1.5.C1, 3.1.5.C2</td>
<td>4.4.5.C</td>
<td></td>
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<tr>
<td>Identify and describe Earth's major biomes</td>
<td>3.1.5.A2</td>
<td>4.2.5.B</td>
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<tr>
<td>Summarize water ecosystems on Earth</td>
<td>3.2.5.A1, 3.3.4.A4, 3.3.5.A5</td>
<td>4.1.5.B, 4.2.5.A</td>
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<tr>
<td><strong>Unit 6: Our Dynamic Earth</strong></td>
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<td>2 - 3 Weeks</td>
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<tr>
<td>Describe Earth's physical features—those on landforms and on the ocean</td>
<td>3.3.5.A1</td>
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<tr>
<td>Explain Earth's layered interior and how topographical maps are useful tools</td>
<td>3.3.5.A1</td>
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<td>Explain the theory of plate tectonics and how it relates to continental drift</td>
<td>3.3.5.A1, 3.3.5.A3</td>
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<tr>
<td>Describe earthquakes and volcanoes and where they occur</td>
<td>3.3.5.A3, 3.2.5.A1</td>
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<tr>
<td>Compare and contrast the processes of weathering and erosion</td>
<td>3.2.5.A1, 3.3.5.A3</td>
<td>4.4.5.C</td>
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**Unit 7: Protecting Earth's Resources**

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<tr>
<td>Explain the rock cycle and identify the three main types of rocks</td>
<td>3.3.5.A2</td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Describe soil and how polluted soil affects living things</td>
<td>3.3.5.A2</td>
<td>4.2.5.C, 4.4.5.C, 4.4.5.A, 4.5.5.C</td>
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<tr>
<td>Identify fossils and explain how fossil fuels form and how they are used to create energy</td>
<td>3.3.5.A2</td>
<td></td>
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</tr>
<tr>
<td>Explain why air and water are considered natural resources</td>
<td>3.3.5.A2, 3.3.5.A4</td>
<td>4.5.5.C, 4.1.5.B, 4.2.5.A, 4.2.5.C</td>
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<tr>
<td>Discuss the importance of conservation</td>
<td>3.3.5.A2</td>
<td>4.2.5.C</td>
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<tr>
<td>Science SB Units and Objectives</td>
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<tr>
<td><strong>Unit 1: Weather Patterns</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain how different types of weather form in the atmosphere</td>
<td>3.3.5.A5</td>
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<tr>
<td>Describe how Earth’s shape and tilt affect global temperatures and wind patterns</td>
<td>3.3.5.A5</td>
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<tr>
<td>Explain how different types of clouds and precipitation form</td>
<td>3.3.5.A5, 3.3.4.A5</td>
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<tr>
<td>Describe severe storms and how they form</td>
<td>3.3.5.A5, 3.3.4.A5</td>
<td></td>
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<tr>
<td>Identify different climates on Earth</td>
<td>3.3.4.A5</td>
<td>4.4.5.C</td>
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<tr>
<td><strong>Unit 2: The Universe</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Describe the sun-Earth-moon relationship and explain what causes seasons</td>
<td>3.3.5.B1, 3.1.5.A2</td>
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<tr>
<td>Explain why the moon has different phases and how eclipses occur</td>
<td>3.3.5.B1</td>
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<tr>
<td>Describe the planets and some of their defining features</td>
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<td>Summarize space exploration over time</td>
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<td>Describe stars and explain the Big Bang</td>
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<td>Science 5B Units and Objectives</td>
<td>PA Science Standards Addressed</td>
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<tr>
<td><strong>Unit 3: Comparing Kinds of Matter</strong></td>
<td></td>
<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Identify different types of matter and explain matter's three states</td>
<td>3.2.5.A1, 3.2.5.B3</td>
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<tr>
<td>Describe how matter can be measured using scientific tools</td>
<td>3.2.5.B2</td>
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<tr>
<td>Describe elements and explain where different elements are located on the periodic table</td>
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<tr>
<td>Explain the differences between metals, nonmetals, and metalloids</td>
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<tr>
<td>Explain how different elements can/cannot conduct electricity</td>
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<tr>
<td><strong>Unit 4: Physical and Chemical Changes</strong></td>
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<td></td>
<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain physical and chemical changes in matter</td>
<td>3.2.5.B2</td>
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<tr>
<td>Describe what a mixture is and explain how mixtures can be separated</td>
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<tr>
<td>Describe compounds and explain how to identify chemical changes</td>
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<tr>
<td>Define acids, bases, and salts and explain their properties</td>
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<tr>
<td>Science 5B Units and Objectives</td>
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<tr>
<td><strong>Unit 5: Using Forces</strong></td>
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<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Define velocity, speed, and acceleration and explain the relationship between position and motion</td>
<td>3.2.5.B2, 3.2.5.B3, 3.2.5.B1</td>
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<tr>
<td>Describe how motion is affected by gravity and friction</td>
<td>3.2.5.B2, 3.2.5.B3, 3.2.5.B1</td>
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<tr>
<td>Explain Newton’s three laws of motion and provide examples for each law</td>
<td>3.2.5.B2, 3.2.5.B3, 3.2.5.B1</td>
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<tr>
<td>Differentiate between work and energy and explain potential and kinetic energy</td>
<td>3.2.5.B1, 3.2.5.B3, 3.2.5.B2</td>
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<tr>
<td>List the six simple machines and explain how they are used</td>
<td>3.2.5.B3, 3.2.5.B2</td>
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<tr>
<td><strong>Unit 6: Using Energy</strong></td>
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<td>2 - 3 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain the difference between temperature and heat</td>
<td>3.2.5.B3</td>
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<tr>
<td>Explain how sound travels and define frequency, pitch, and volume</td>
<td>3.2.5.B5, 3.2.5.B3, 3.2.5.B2</td>
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<tr>
<td>Understand how light travels and explain how different colors form</td>
<td>3.2.5.B3, 3.2.5.B2</td>
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<tr>
<td>Define static electricity and describe electric circuits</td>
<td>3.2.5.B4, 3.2.5.B3, 3.2.5.B2</td>
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<tr>
<td>Explain magnetism and describe how a magnet works</td>
<td>3.2.5.B3</td>
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</table>
## Grade 6

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<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Unit 1: Introduction to Science</strong></td>
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<td></td>
<td></td>
<td><strong>3-4 Weeks</strong></td>
</tr>
<tr>
<td>Explain what scientific inquiry is and describe the attitudes that are necessary for thinking scientifically</td>
<td>3.1.6.A9, 3.1.6.B6, 3.1.6.C4, 3.2.6.A6, 3.2.6.B7, 3.3.6.A7, 3.3.6.B3</td>
<td></td>
<td>4.1.6.F, 4.2.6.D, 4.3.6.C, 4.4.6.E, 4.5.6.F</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>List the steps of the scientific method and apply the scientific processes that are important to science investigations</td>
<td>3.1.6.A9, 3.1.6.B6, 3.1.6.C4, 3.2.6.A6, 3.2.6.B7, 3.3.6.A7, 3.3.6.B3</td>
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<td>4.1.6.F, 4.2.6.D, 4.3.6.C, 4.4.6.E, 4.5.6.F</td>
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<tr>
<td>Explain why preparation is important to doing science experiments in the lab and in the field</td>
<td>3.1.6.A9, 3.1.6.B6, 3.1.6.C4, 3.2.6.A6, 3.2.6.B7, 3.3.6.A7, 3.3.6.B3</td>
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<td>4.1.6.F, 4.2.6.D, 4.3.6.C, 4.4.6.E, 4.5.6.F</td>
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<tr>
<td><strong>Unit 2: Structure, Function, and Information Processing</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe the composition of living things and investigate the tools scientists use to study them</td>
<td>3.1.6.A1, 3.1.6.A4, 3.1.6.A5, 3.1.6.A6, 3.1.6.A8</td>
<td></td>
<td>4-5 Weeks</td>
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</tr>
<tr>
<td>Identify the resources needed for living things to survive and investigate the effects of limited resources</td>
<td>3.1.6.A1</td>
<td></td>
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<tr>
<td>Use models to illustrate and explain how cell structure is related to cell function</td>
<td>3.1.6.A4</td>
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<tr>
<td>Summarize the way in which body systems work together to keep an organism alive</td>
<td>3.1.6.A5</td>
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<tr>
<td>Plan and conduct investigations that show how organisms sense and react to their surroundings</td>
<td>3.1.6.A5</td>
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<tr>
<td><strong>Unit 3: Reproduction and Development of Organisms</strong></td>
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<tr>
<td>Discuss how the growth of organisms is affected by environmental and genetic factors</td>
<td>3.1.6.A5</td>
<td></td>
<td>3-4 Weeks</td>
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<tr>
<td>Demonstrate that plants use photosynthesis to grow throughout their lives</td>
<td>3.1.6.A5</td>
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<tr>
<td>Plan and conduct investigations into how animal behaviors and plant structures affect the successful reproduction of the plant</td>
<td>3.1.6.A5</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Analyze empirical evidence that explains how the chance of successful reproduction depends on animal behaviors</td>
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<tr>
<td>Communicate ways that technology makes it possible to influence the inheritance of traits</td>
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<tr>
<td><strong>Unit 4: Interdependent Relationships in Ecosystems</strong></td>
<td></td>
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<td>4-5 Weeks</td>
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<tr>
<td>Use models to illustrate and explain the factors that determine the number of organisms an ecosystem can support</td>
<td></td>
<td>4.4.6.A</td>
<td></td>
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<tr>
<td>Recognize competitive, predatory, and mutually beneficial interactions between organisms, and give an example of each</td>
<td>3.1.6.C1</td>
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<tr>
<td>Describe biodiversity and its role in a healthy ecosystem</td>
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<tr>
<td>Evaluate and discuss the ways in which human activity and biodiversity affect one other</td>
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<tr>
<td>Science 6B Units and Objectives</td>
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<tr>
<td><strong>Unit 1: Introduction to Planet Earth</strong></td>
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<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify and describe the four main components of the Earth system and explain the properties of Earth that support life</td>
<td>3.3.6.A1</td>
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<tr>
<td>Define rotation and revolution and explain why day and night and seasons occur</td>
<td>3.3.6.B1, 3.3.6.B2</td>
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<tr>
<td>Identify what determines the strength of the force of gravity between two objects and describe what factors keep the moon and Earth in orbit</td>
<td>3.3.6.B1</td>
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<tr>
<td>Describe the features and characteristics of the moon and explain why the moon has phases and the effect the sun and the moon have on tides</td>
<td>3.3.6.B1, 3.3.6.B2</td>
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<tr>
<td>Define the term eclipse and explain when solar and lunar eclipses occur</td>
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<tr>
<td><strong>Unit 2: Weather and Climate</strong></td>
<td></td>
<td>3-4 Weeks</td>
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<tr>
<td>Describe the water cycle and its processes</td>
<td>3.3.6.A4</td>
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<tr>
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<tr>
<td>Name the main kinds of storms and explain how they form</td>
<td>3.3.6.A5</td>
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<tr>
<td>Explain the factors that affect climate</td>
<td>3.3.6.A5</td>
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<tr>
<td>Discuss greenhouse gases and their effect on organisms and the environment</td>
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<tr>
<td><strong>Unit 3: Structures and Properties of Matter</strong></td>
<td></td>
<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Construct models that show that atoms are the building blocks of molecules</td>
<td>3.2.6.A4</td>
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<tr>
<td>Investigate and explain how pure substances differ from one another</td>
<td>3.2.6.A2, 3.2.6.A5</td>
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<tr>
<td>Describe and model the effect of the removal and addition of thermal energy on motion and temperature of different substances</td>
<td>3.2.6.A1, 3.2.6.B6</td>
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<tr>
<td>Explain the effect on atomic and molecular motion of adding or removing thermal energy to a pure substance in different phases and during a phase change</td>
<td>3.2.6.A1, 3.2.6.A4, 3.2.6.B6</td>
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<td>Measure the effect sample size has on the change in temperature of a sample</td>
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<tr>
<td><strong>Unit 4: Forces and Motion</strong></td>
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<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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### Science 6B Units and Objectives

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<tr>
<td>Explain how motion is described</td>
<td>3.2.6.B1</td>
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<tr>
<td>Analyze how outside forces affect an object's motion, position, and shape</td>
<td>3.2.6.B1</td>
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<tr>
<td>Demonstrate Newton's third law of motion</td>
<td>3.2.6.B1</td>
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<tr>
<td>Analyze how an object's mass affects its acceleration, and how a force exerted on the object affects its acceleration</td>
<td>3.2.6.B1</td>
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### Grade 7

#### Grade 7 Science 7A Units and Objectives

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<td></td>
<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Defend the use of the inquiry process as an effective way to study science</td>
<td>3.1.7.A9, 3.1.7.B6, 3.1.7.B6, 3.1.7.C4, 3.2.7.A6, 3.2.7.B7, 3.3.7.A7, 3.3.7.B3</td>
<td></td>
<td>4.1.7.F, 4.2.7.D, 4.3.7.C, 4.4.7.E, 4.5.7.F</td>
<td></td>
</tr>
<tr>
<td>Differentiate between the independent, dependent, and constant variables in an experiment</td>
<td>3.1.7.A9, 3.1.7.B6, 3.1.7.C4, 3.2.7.A6, 3.2.7.B7, 3.3.7.A7, 3.3.7.B3</td>
<td></td>
<td>4.1.7.F, 4.2.7.D, 4.3.7.C, 4.4.7.E, 4.5.7.F</td>
<td></td>
</tr>
<tr>
<td>Justify why scientific theories are modified, but seldom discarded</td>
<td>3.1.7.A9, 3.1.7.B6, 3.1.7.C4, 3.2.7.A6, 3.2.7.B7, 3.3.7.A7, 3.3.7.B3</td>
<td></td>
<td>4.1.7.F, 4.2.7.D, 4.3.7.C, 4.4.7.E, 4.5.7.F</td>
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<tr>
<td>Science 7A Units and Objectives</td>
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<td>Instructional Activities</td>
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<tr>
<td>Explain the nature of science, science research, and how scientific progress is made</td>
<td>3.1.7.A9, 3.1.7.B6, 3.1.7.C4, 3.2.7.A6, 3.2.7.B7, 3.3.7.A7, 3.3.7.B3</td>
<td>4.1.7.F, 4.2.7.D, 4.3.7.C, 4.4.7.E, 4.5.7.F</td>
<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Specify ways science and technology have influenced society</td>
<td>3.1.7.A9, 3.1.7.B6, 3.1.7.C4, 3.2.7.A6, 3.2.7.B7, 3.3.7.A7, 3.3.7.B2, 3.3.7.B3</td>
<td>4.1.7.F, 4.2.7.D, 4.3.7.C, 4.4.7.E, 4.5.7.F</td>
<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Unit 2: Earth’s Interior Systems</td>
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<tr>
<td>Describe the properties of minerals</td>
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<tr>
<td>Explain the processes involved in the rock cycle. Investigate and describe the three major types</td>
<td>3.3.7.A1</td>
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<tr>
<td>of rocks: igneous, sedimentary, and metamorphic</td>
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<tr>
<td>Explain and describe the theory of plate tectonics and drifting continents</td>
<td>3.3.7.A1</td>
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<tr>
<td>Describe how earthquakes and volcanic eruptions occur</td>
<td>3.3.7.A1</td>
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<tr>
<td>Analyze and interpret data sets that set the location and frequency of natural hazards like</td>
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<td>earthquakes and tsunamis</td>
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<tr>
<td>Unit 3: Earth’s Surface Systems</td>
<td></td>
<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Science 7A Units and Objectives</td>
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<td>PA Ecology Standards Addressed</td>
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<td>Instructional Activities</td>
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<tr>
<td>Describe Earth’s surface land and water features</td>
<td>3.3.7.A2, 3.3.7.A4, 3.3.7.A6</td>
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<tr>
<td>Investigate the causes of weathering</td>
<td>3.3.7.A3</td>
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<tr>
<td>Explain the processes of erosion and deposition and how they shape Earth’s surface</td>
<td>3.3.7.A3</td>
<td>4.1.7.B</td>
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<tr>
<td>Explain and describe the agents of erosion: gravity, water, wind, and glaciers</td>
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<tr>
<td>Describe how soil is formed and conserved</td>
<td>3.3.7.A2</td>
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### Unit 4: Chemical Reactions

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<tr>
<td>Relate the principle of conservation of mass to chemical reactions</td>
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<tr>
<td>Verify that substances at the end of a reaction have different properties than the original substances</td>
<td>3.2.7.A1, 3.2.7.A3, 3.2.7.A4</td>
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<tr>
<td>Explain why some reactions release energy while some others absorb energy</td>
<td>3.2.7.B6</td>
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<tr>
<td>Construct models to show the movement of matter and energy through the carbon cycle</td>
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</table>

Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.
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<th>Instructional Activities</th>
</tr>
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<tbody>
<tr>
<td><strong>Unit 1: Energy</strong></td>
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<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Examine and explain the relationship between the kinetic energy of an object and its mass and speed</td>
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<td>Estimate the amount of potential energy an object has based on its position within an electrical, gravitational, or magnetic field</td>
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<tr>
<td>Use and/or construct models that illustrate energy transfer by convection, conduction, and radiation</td>
<td>3.2.7.B2, 3.2.7.B3, 3.2.7.B6</td>
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<tr>
<td>Determine possible ways to maximize or minimize friction and energy transfer in everyday machines</td>
<td>3.2.7.B2</td>
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<tr>
<td>Devise plans for a device that can operate without generating large amounts of heat and justify your choice of materials</td>
<td>3.2.7.B6</td>
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</tr>
<tr>
<td><strong>Unit 2: Waves and Electromagnetic Radiation</strong></td>
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<td></td>
<td>3-4 Weeks</td>
<td>Through the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Investigate and interpret the relationship between properties of waves and various wave behaviors and characteristics</td>
<td>3.2.7.B5</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Summarize various ways modern technology uses waves to enhance communication</td>
<td>3.2.7.B5</td>
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<tr>
<td><strong>Unit 3: Introduction to Genetics</strong></td>
<td></td>
<td></td>
<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Use models to explain variation and duplication in offspring in sexual and asexual reproduction</td>
<td>3.1.7.A4, 3.1.7.B2, 3.1.7.B5</td>
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<tr>
<td>Relate specific inherited traits to mutations of genes</td>
<td>3.1.7.B1</td>
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<tr>
<td>Explain how mutations and changes to the formation of proteins affect traits</td>
<td>3.1.7.B1</td>
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<tr>
<td>Illustrate how probability can be used to predict traits</td>
<td>3.1.7.B1, 3.1.7.B5</td>
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<tr>
<td><strong>Unit 4: Natural Selection and Adaptation</strong></td>
<td></td>
<td></td>
<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain why fossils of some extinct organisms have been found while others have not</td>
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</tbody>
</table>
### Science 7B Units and Objectives

<table>
<thead>
<tr>
<th>Description</th>
<th>PA Science Standards Addressed</th>
<th>PA Ecology Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe how scientists use the fossil record, comparative anatomy, and similarities in development between species to understand the history of life on Earth</td>
<td>3.1.7.C2, 3.1.7.C3</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Summarize the way in which natural selection can change the characteristics of a population</td>
<td>3.1.7.C1, 3.1.7.C2</td>
<td>4.1.7.D, 4.1.7.E</td>
<td></td>
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</tr>
<tr>
<td>Explain how two populations of the same species can develop into separate species</td>
<td>3.1.7.C1, 3.1.7.C2</td>
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</tbody>
</table>

### Grade 8

#### Science 8A Units and Objectives

<table>
<thead>
<tr>
<th>Description</th>
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<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define science and give examples of what different scientists study</td>
<td>3.1.8.A9, 3.1.8.B6, 3.1.8.C4, 3.2.8.A6, 3.2.8.B6, 3.2.8.B7, 3.3.8.A7</td>
<td></td>
<td>4.1.8.F, 4.2.8.D, 4.3.8.C, 4.4.8.E</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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</tbody>
</table>

#### Unit 1: Introduction to Science

- Definition: Science and give examples of what different scientists study
- Objective: Define science and give examples of what different scientists study
- Instructional Time: 4-5 Weeks
- Activities: Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

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<tr>
<th>Science 8A Units and Objectives</th>
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<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
</table>

### Unit 2: Our Solar System

Identify objects within the solar system and explain how the solar system was formed

**Instructional Activities**

- **Unit 2:** Our Solar System

- **Estimated Instructional Time:** 3-4 Weeks

Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.
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<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
<th>Assessment Anchors and Eligible Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the physical characteristics of the sun, including its interior and its atmosphere, and identify each of the inner and outer planets and describe the characteristics that distinguish them from one another</td>
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<td>S8.A.3, S8.A.3.2.1, S8.D.3, S8.D.3.1.3</td>
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</table>

**Unit 3: Earth’s History**

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<tr>
<th></th>
<th>3-4 Weeks</th>
<th>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</th>
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<tr>
<td>Explain the importance of the geologic time scale and how it can be used to learn about Earth’s history</td>
<td>3.3.8.A3</td>
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<tr>
<td>Identify significant events during Precambrian time and the Paleozoic, Mesozoic, and Cenozoic eras and explain the factors that can cause the extinction of organisms</td>
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<tr>
<td>Explain how some species have survived, while others have become extinct, and explain the carbon cycle and its importance to nutrient cycling on Earth</td>
<td>3.3.8.A3</td>
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<tr>
<td>Explain ways of conserving natural resources</td>
<td>3.3.8.A2</td>
<td>4.3.8.A, 4.5.8.D</td>
</tr>
<tr>
<td>Describe renewable and nonrenewable resources</td>
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<tr>
<td>Explain how water, air, and land pollution impact the environment</td>
<td>3.4.8.B2</td>
<td>4.2.8.A, 4.5.8.C</td>
</tr>
<tr>
<td>Explain ways of conserving natural resources</td>
<td>3.3.8.A3</td>
<td>4.5.8.A</td>
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<tr>
<td>Science 8B Units and Objectives</td>
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<td>PA Ecology Standards Addressed</td>
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<tr>
<td><strong>Unit 1: Matter and Energy in Organisms and Ecosystems</strong></td>
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<tr>
<td>Use models to illustrate and explain the transfer of matter and energy through an ecosystem</td>
<td>3.2.8.A3</td>
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<tr>
<td>Conduct investigations and use models to illustrate and explain how matter is cycled through the living and nonliving parts of an ecosystem</td>
<td>3.3.8.A3</td>
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<tr>
<td>Science 8B Units and Objectives</td>
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<tr>
<td><strong>Unit 2: The Human Body</strong></td>
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<tr>
<td>Identify the components and functions of the major systems of the human body</td>
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<tr>
<td>Explain how the major body systems interact and work together</td>
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<tr>
<td>Analyze the causes of infection and disease</td>
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<tr>
<td>Explore how humans can fight and prevent disease</td>
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<td>Synthesize the information learned about the human body to promote good health</td>
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<tr>
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<tr>
<td><strong>Unit 3: Interaction of Forces</strong></td>
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<tr>
<td>Devise ways to change the strength of electric and magnetic forces</td>
<td>3.2.8.B6</td>
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<tr>
<td>Construct and refine a model to illustrate how gravitational interactions among objects in space affect their motion</td>
<td>3.2.8.B6</td>
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<tr>
<td>Predict the stability of a physical system</td>
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<tr>
<td>Science 8B Units and Objectives</td>
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<tr>
<td><strong>Unit 4: Energy and the Environment</strong></td>
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<tr>
<td>Categorize various types of energy resources</td>
<td>3.3.8.A2</td>
<td>4.3.8.A</td>
</tr>
<tr>
<td>Determine how various nonrenewable resources are obtained and used</td>
<td>3.3.8.A2</td>
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</tr>
<tr>
<td>Determine how various renewable resources are obtained and used</td>
<td>3.3.8.A2</td>
<td>4.3.8.A</td>
</tr>
<tr>
<td>Specify ways to sustain renewable resources and to reduce, reuse, and recycle</td>
<td>3.3.8.A2</td>
<td>4.5.8.C</td>
</tr>
<tr>
<td>Determine the environmental and economic effects of the use of various energy sources</td>
<td>3.3.8.A2</td>
<td>4.2.8.A, 4.3.8.A, 4.5.8.D</td>
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## Biology

<table>
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<tr>
<th>Biology Units and Objectives</th>
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<th>PA 12th Grade Science Standards Addressed</th>
<th>PA 12th Grade Ecology Standards Addressed</th>
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<th>Instructional Activities</th>
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<td><strong>Unit 1: The Nature of Life</strong></td>
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</tr>
<tr>
<td><strong>Unit 2: Cells</strong></td>
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<td>5-6 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
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<td>Instructional Activities</td>
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<tr>
<td><strong>Unit 3: Genetics</strong></td>
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<td>6-7 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe ways that the study of genetics is being applied to understand human biology and to understand and manipulate the traits of other organisms</td>
<td>3.1.B.B1, 3.1.B.B2, 3.1.B.B3, 3.1.B.B5</td>
<td></td>
<td>3.1.10.B5</td>
<td>3.1.12.B5</td>
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</tr>
<tr>
<td><strong>Unit 4: Biology Semester A Review and Test</strong></td>
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<td>4 Days</td>
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<tr>
<td>Biology B</td>
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<tr>
<td><strong>Unit 1 Evolution</strong></td>
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<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain why fossils have been important in establishing current thinking about the history of life on Earth</td>
<td>3.1.B.C2, 3.1.B.C3</td>
<td>3.1.10.C3</td>
<td>3.1.12.C3</td>
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<tr>
<td><strong>Unit 2: Ecology</strong></td>
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<td></td>
<td>4-5 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Analyze the factors that shape ecosystems</td>
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<td>4.1.12.A</td>
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<tr>
<td>Explain the factors that influence the sizes of populations</td>
<td>3.1.B.A8</td>
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<td>4.1.12.A</td>
<td></td>
</tr>
</tbody>
</table>

<p>| Unit 7: From Microorganisms to Plants                                    |                                |                                          |                                          |                                          | 3-4 Weeks                   | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |</p>
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</tr>
</thead>
<tbody>
<tr>
<td>Describe the distinguishing features of protists and fungi and explain their ecological roles</td>
<td>3.1.B.A8</td>
<td></td>
<td>3.1.12.A8</td>
<td></td>
<td></td>
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<tr>
<td>Identify the four main groups of plants and describe the adaptations of each that have allowed them to be successful in terrestrial habitats</td>
<td>3.1.B.A8</td>
<td></td>
<td>3.1.12.A8</td>
<td></td>
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<tr>
<td>Describe the structures and functions of cells, tissues, and organs in seed plants</td>
<td>3.1.B.A6</td>
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<tr>
<td><strong>Unit 3: Animals</strong></td>
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<td></td>
<td></td>
<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe the traits that distinguish animals from other organisms</td>
<td>3.1.B.A8</td>
<td>3.1.10.A8</td>
<td>3.1.12.A8</td>
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</table>
### Biology B

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<tr>
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<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the structures and body systems of animals that allow them to maintain homeostasis</td>
<td>3.1.B.A8</td>
<td>3.1.10.A8</td>
<td>3.1.12.A8</td>
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<tr>
<td>Describe the structures and body systems of animals that allow them to sense and respond to their environment</td>
<td>3.1.B.A8</td>
<td>3.1.10.A8</td>
<td>3.1.12.A8</td>
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</tr>
<tr>
<td><strong>Unit 4: Biology Semester B Review and Test</strong></td>
<td><strong>Unit 4: Biology Semester B Review and Test</strong></td>
<td><strong>2 Days</strong></td>
<td><strong>2 Days</strong></td>
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### Chemistry

<table>
<thead>
<tr>
<th>Chemistry A Units and Objectives</th>
<th>PA Chemistry Standards Addressed</th>
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<th>PA 12th Grade Science Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Introduction to Chemistry</strong></td>
<td><strong>Unit 1: Introduction to Chemistry</strong></td>
<td><strong>2-3 Weeks</strong></td>
<td><strong>2-3 Weeks</strong></td>
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</tr>
<tr>
<td>Identify the traditional areas of study in chemistry</td>
<td>3.1.C.C4, 3.2.C.A5, 3.2.C.A6</td>
<td></td>
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<tr>
<td>Describe how chemistry research affects industries</td>
<td>3.1.C.C4</td>
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<tr>
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<tr>
<td>Describe the scientific method</td>
<td>3.1.C.C4</td>
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<tr>
<td>Perform accurate metric conversions</td>
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<tr>
<td>Calculate the density of a material from experimental data</td>
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<tr>
<td><strong>Unit 2: An Overview of Matter and Change</strong></td>
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</tr>
<tr>
<td>Describe physical and chemical properties and changes</td>
<td>3.2.C.A1, 3.2.C.A3, 3.2.C.A4</td>
<td></td>
<td></td>
<td>1-2 Weeks</td>
<td></td>
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<tr>
<td>Define element, compound, and mixture</td>
<td>3.2.C.A1</td>
<td></td>
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<tr>
<td>Compare different types of substances</td>
<td>3.2.C.A1</td>
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<tr>
<td>Identify signs that indicate a chemical change has occurred</td>
<td>3.2.C.A1</td>
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<tr>
<td><strong>Unit 3: Atoms and Elements</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Compare historic models of the atom</td>
<td>3.2.C.A1, 3.2.C.A5</td>
<td></td>
<td>3.2.10.A5</td>
<td>2-3 Weeks</td>
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</tr>
<tr>
<td>Describe the structure of an atom</td>
<td>3.2.C.A1, 3.2.C.A5</td>
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<tr>
<td>Define isotope</td>
<td>3.2.C.A1</td>
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<tr>
<td>Explain how elements are organized in a periodic table</td>
<td>3.2.C.A1, 3.2.C.A2</td>
<td></td>
<td>3.2.10.A1</td>
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<tr>
<td>Identify information provided in the periodic table</td>
<td>3.2.C.A1, 3.2.C.A2</td>
<td>3.2.10.A1</td>
<td></td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 4: Chemical Bonding</strong></td>
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<td>2-3 Weeks</td>
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<tr>
<td>Describe how cations and anions form</td>
<td>3.2.C.A2</td>
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<tr>
<td>Explain the octet rule</td>
<td>3.2.C.A2</td>
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<tr>
<td>Compare the properties of ionic and molecular compounds</td>
<td>3.2.C.A2</td>
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<tr>
<td>Demonstrate how electron dot structures represent ionic and molecular compounds</td>
<td>3.2.C.A2</td>
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<tr>
<td>Evaluate the strength of ionic and covalent bonds</td>
<td>3.2.C.A2</td>
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<tr>
<td><strong>Unit 5: Chemical Formulas and Reactions</strong></td>
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<td></td>
<td>3-4 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe and apply the rules for naming different types of compounds and formulas</td>
<td>3.2.C.A2, 3.2.C.A4</td>
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<tr>
<td>Define and apply the laws of definite proportions and multiple proportions</td>
<td>3.2.C.A2, 3.2.C.A4</td>
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<tr>
<td>Describe how to convert the mass or volume of a substance to number of particles and vice versa</td>
<td>3.2.C.A2, 3.2.C.A4</td>
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<tr>
<td>Calculate the percent compositions, empirical formulas, and molecular formulas of compounds</td>
<td>3.2.C.A2, 3.2.C.A4</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Describe and analyze the major types of chemical reactions</td>
<td>3.2.C.A2</td>
<td>3.2.10.A4</td>
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<tr>
<td><strong>Unit 6: Stoichiometry</strong></td>
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<td>2-3 Weeks</td>
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<tr>
<td>Describe how balanced equations apply to both chemistry and everyday life</td>
<td>3.2.C.A2, 3.2.C.A4</td>
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<tr>
<td>Explain balanced chemical equations in terms of moles, representative particles, mass, and gas volume at standard temperature and pressure</td>
<td>3.2.C.A2, 3.2.C.A4</td>
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<tr>
<td>Calculate stoichiometric quantities from balanced chemical equations</td>
<td>3.2.C.A2, 3.2.C.A4</td>
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<tr>
<td>Identify and use the limiting reagent in a reaction to calculate the maximum amount of product(s) produced and the excess reagent that remains unreacted</td>
<td>3.2.C.A2</td>
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<tr>
<td><strong>Unit 7: Final Review and Exam</strong></td>
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<td>2-3 Days</td>
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<tr>
<td>Identify strategies that you will use to prepare for your exam</td>
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<tr>
<td>Organize your time and study materials</td>
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<tr>
<td>Review your notes, answers to</td>
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**Chemistry A Units and Objectives**

- **Calculate the percent compositions, empirical formulas, and molecular formulas of compounds**
- **Describe and analyze the major types of chemical reactions**

**PA Chemistry Standards Addressed**

- 3.2.C.A2
- 3.2.C.A4

**PA 10th Grade Science Standards Addressed**

- 3.2.C.A2
- 3.2.C.A4

**PA 12th Grade Science Standards Addressed**

- 3.2.C.A2
- 3.2.10.A4

**Estimated Instructional Time**

- 2-3 Weeks

**Instructional Activities**

- Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.
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<th>Instructional Activities</th>
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<tbody>
<tr>
<td>lesson questions and assessments, and key vocabulary terms</td>
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### Chemistry B

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<tr>
<th>Unit 1: Solids, Liquids, and Gases</th>
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<tbody>
<tr>
<td>Describe the different states of matter</td>
<td>3.2.C.A1, 3.2.C.A3</td>
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<tr>
<td>Describe phase changes in terms of energy</td>
<td>3.2.C.A1, 3.2.C.A3</td>
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<td>Apply the gas laws</td>
<td>3.2.C.A2</td>
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<tr>
<td>Compare homogeneous and heterogeneous aqueous solutions</td>
<td>3.2.C.A1</td>
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<thead>
<tr>
<th>Unit 2: Solutions, Acids, and Bases</th>
<th>PA Chemistry Standards Addressed</th>
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<tr>
<td>Identify the factors that determine the rate at which a solute dissolves</td>
<td>3.2.C.A1</td>
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<tr>
<td>Solve problems involving concentrations of solutions</td>
<td>3.2.C.A1</td>
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<tr>
<td>Define the properties of acids and bases</td>
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<tr>
<td>Classify a solution as neutral, acidic, or basic</td>
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<tr>
<td>Use the process of titration to determine the concentration of an acid or a base</td>
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<tr>
<td><strong>Unit 3: Heat, Energy, and Reactions</strong></td>
<td></td>
<td></td>
<td>2-3 Weeks</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain how energy, heat, and work are related</td>
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<tr>
<td>Solve for enthalpy changes in chemical reactions</td>
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<tr>
<td>Design an experiment to test the factors that affect the rate of a reaction</td>
<td>3.1.C.A2</td>
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<tr>
<td>Describe how the amounts of reactants and products change in a chemical system at equilibrium</td>
<td>3.2.C.A2</td>
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<tr>
<td>Identify stresses that may compromise the equilibrium of a chemical reaction</td>
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<td>3.2.12.A5</td>
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<tr>
<td><strong>Unit 4: Electrochemistry</strong></td>
<td></td>
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<td>2-3 Weeks</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Chemistry B</td>
<td>PA Chemistry Standards Addressed</td>
<td>PA 10th Grade Science Standards Addressed</td>
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<tr>
<td>Identify whether substances are being reduced or oxidized during a chemical reaction</td>
<td>3.2.12.A4</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Determine the oxidation number of an atom</td>
<td>3.2.12.A4</td>
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<tr>
<td>Interpret an activity series</td>
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<tr>
<td>Distinguish between electrolytic and voltaic cells</td>
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<tr>
<td><strong>Unit 5: Organic Chemistry</strong></td>
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<td></td>
<td>2-3 Weeks</td>
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<tr>
<td>Classify organic compounds</td>
<td>3.2.C.A2</td>
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<tr>
<td>Construct general formulas and structures of organic compounds</td>
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<tr>
<td>Describe how enzymes affect biochemical reactions</td>
<td>3.2.C.A2</td>
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<tr>
<td>Identify some common plastics and their uses</td>
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<tr>
<td><strong>Unit 6: Nuclear Chemistry</strong></td>
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<td></td>
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<td>1-2 Weeks</td>
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<tr>
<td>Describe the three types of nuclear radiation</td>
<td>3.2.C.A3</td>
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<tr>
<td>Solve problems involving nuclear decay</td>
<td>3.2.C.A3</td>
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<tr>
<td>Compare fission and fusion reactions</td>
<td>3.2.C.A3</td>
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<tr>
<td>Identify devices that are used to detect radiation</td>
<td>3.2.C.A3</td>
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<tr>
<td>Identify different uses of radiation</td>
<td>3.2.C.A3</td>
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<tr>
<td><strong>Unit 7: Final Review and Exam</strong></td>
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<td><strong>2-3 Days</strong></td>
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<tr>
<td>Identify strategies that you will use to prepare for your exam</td>
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<td>Organize your time and study materials</td>
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<tr>
<td>Review your notes, answers to lesson questions and assessments, and key vocabulary terms</td>
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# Physics

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<td><strong>Unit 1: Introduction</strong></td>
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<td>1-2 Days</td>
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<tr>
<td><strong>Unit 2: Physics and the Laws of Motion</strong></td>
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<td>5-6 Weeks</td>
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<td><strong>Unit 3: Energy and Motion</strong></td>
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<td>5-6 Weeks</td>
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<tr>
<td>Describe what a machine is and how it makes work easier to do</td>
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<td>3.1.10.B2</td>
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<td><strong>Unit 4: Heat and Thermodynamics</strong></td>
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<td>5-6 Weeks</td>
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<tr>
<td>Relate thermal energy to the motion of particles that make up a material</td>
<td></td>
<td>3.2.10.B3</td>
<td>3.2.12.B2, 3.2.12.B3</td>
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<tr>
<td>Relate temperature to thermal energy and to thermal expansion</td>
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<td>3.2.10.B3</td>
<td>3.2.12.B2, 3.2.12.B3</td>
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<tr>
<td>Calculate thermal energy, temperature change, or mass using the specific heat equation</td>
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<td>3.2.10.B3</td>
<td>3.2.12.B3</td>
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<tr>
<td>Describe how heat does work</td>
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<td>3.2.10.B1, 3.2.10.B2</td>
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<tr>
<td>Describe and apply the First and Second Laws of Thermodynamics</td>
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<td><strong>Unit 5: Final Review and Exam</strong></td>
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<td><strong>Unit 1: Waves</strong></td>
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<td>5-6 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe the behavior of oscillations and waves</td>
<td>3.2.P.B5</td>
<td>3.2.10.B5</td>
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<tr>
<td>State a rule that explains refraction of a wave as it passes from one medium to another</td>
<td>3.2.P.B5</td>
<td>3.2.10.B5</td>
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<tr>
<td>Identify factors that affect the amount of refraction, diffraction, or interference</td>
<td>3.2.P.B5</td>
<td>3.2.10.B5</td>
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<tr>
<td>Describe the relationship between wave speed, frequency, and wavelength</td>
<td>3.2.P.B5</td>
<td>3.2.10.B5</td>
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<tr>
<td>Describe characteristics of sound and light waves</td>
<td>3.2.P.B5</td>
<td>3.2.10.B5</td>
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<tr>
<td><strong>Unit 2: Electricity</strong></td>
<td></td>
<td></td>
<td></td>
<td>5-6 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Calculate electric force</td>
<td>3.2.P.B4</td>
<td>3.2.10.B4</td>
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<tr>
<td>Describe and interpret electric field lines</td>
<td>3.2.P.B4</td>
<td>3.2.10.B4</td>
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<tr>
<td>Describe electric potential and how capacitors store electrical energy</td>
<td>3.2.P.B4</td>
<td>3.2.10.B4</td>
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<tr>
<td>Compare and contrast series and parallel circuits</td>
<td>3.2.P.B4</td>
<td>3.2.10.B4</td>
<td>5-6 Weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 3: Magnetism and Atomic Physics</strong></td>
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<tr>
<td>Describe how an electromagnet works</td>
<td>3.2.P.B4</td>
<td>3.2.10.B4</td>
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<tr>
<td>Analyze the forces exerted on charges in a magnetic field</td>
<td>3.2.P.B4</td>
<td>3.2.10.B4</td>
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<tr>
<td>Analyze the relationship between electricity and magnetic fields</td>
<td>3.2.P.B4</td>
<td>3.2.10.B4</td>
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<tr>
<td>Describe the electronic structure of an atom and use this information to predict where electrons are located in an atom</td>
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<tr>
<td><strong>Unit 4: Final Review and Exam</strong></td>
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<td>2-3 Days</td>
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SOCIAL STUDIES K-12
## Kindergarten

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<thead>
<tr>
<th>Social Studies KA Units and Objectives</th>
<th>Civics and Government</th>
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<th>Geography</th>
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<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Unit 1: My Family, My School</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe how people cooperate when they make decisions and work together to get a job done</td>
<td>5.1.K.C, 5.2.K.B, 5.4.K.B, 5.1.2.C</td>
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<td>8.4.K.D</td>
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<tr>
<td>Show how people cooperate, share ideas, listen to others, and interact positively with many different people, such as family, friends, and classmates</td>
<td>5.1.K.C, 5.1.K.E, 5.1.1.C, 5.1.2.C, 5.2.K.D</td>
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<td>8.4.K.D</td>
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<tr>
<td>Explain what U.S. symbols and monuments stand for and remind us of our country</td>
<td>5.1.K.F</td>
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<td><strong>Unit 2: Everybody Works</strong></td>
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<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain why people make choices about needs and wants</td>
<td>6.4.K.D, 6.1.K.B, 6.1.C.B</td>
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<tr>
<td>Describe how people do many kinds of work making goods or providing services</td>
<td>6.2.K.A, 6.5.K.C</td>
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<td>8.1.K.C</td>
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<tr>
<td>Infer that people buy things because they cannot make everything themselves</td>
<td>6.2.K.D</td>
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<tr>
<td>Explain that people sell things because others want to buy them</td>
<td>6.1.C.B, 6.2.K.D</td>
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<tr>
<td><strong>Unit 3: Where We Live</strong></td>
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<td>3-4 weeks</td>
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<tbody>
<tr>
<td>Explain how maps and globes are simple representations of places on Earth</td>
<td></td>
<td></td>
<td>7.1.K.A, 7.1.C.A</td>
<td>8.1.K.C</td>
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<tr>
<td>Identify that the world is made up of landforms and bodies of water</td>
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<td>7.1.K.A, 7.2.K.B</td>
<td>8.1.K.C</td>
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<tr>
<td>Describe how the weather and seasons affect what people wear and do</td>
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<td>7.3.K.A</td>
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<tr>
<td>Describe how physical features are located in specific places and how words can be used to describe the locations of human and physical features</td>
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<td>7.1.K.B</td>
<td>8.1.K.C</td>
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<tr>
<td>Identify that people use the world’s natural resources to satisfy basic needs</td>
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<td></td>
<td>7.1.C.A, 7.2.K.B</td>
<td>8.1.K.C</td>
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### Social Studies KB Units and Objectives

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<tbody>
<tr>
<td>Unit 1: More Where We Live</td>
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<td>3-4 weeks</td>
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<td>7.3.K.A</td>
<td>8.1.K.C</td>
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<td></td>
<td>7.1.C.A, 7.2.K.B</td>
<td>8.1.K.C</td>
<td></td>
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</tbody>
</table>

**Unit 2: Our Traditions**

<table>
<thead>
<tr>
<th>Social Studies KB Units and Objectives</th>
<th>Civics and Government</th>
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<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize that people are alike and different</td>
<td></td>
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<td>5.1.K.C</td>
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<tr>
<td>Explain that people celebrate in many ways</td>
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<td>5.1.K.C</td>
<td></td>
<td>8.4.K.C</td>
</tr>
<tr>
<td>Recognize that we learn about our country through stories and holidays</td>
<td></td>
<td></td>
<td></td>
<td>5.1.K.F</td>
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<td>8.1.K.C, 8.3.K.A</td>
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<tr>
<td>Explain that we are all part of a culture</td>
<td></td>
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<td></td>
<td>5.1.K.C</td>
<td></td>
<td>8.3.K.A, 8.4.K.A</td>
</tr>
<tr>
<td>Describe that there are many different cultures around the world</td>
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<td>8.4.K.A, 8.4.K.C</td>
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</tbody>
</table>

Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 3: Life Then and Now</strong></td>
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<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain that things change over time</td>
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<td>8.1.K.A, 8.3.K.C</td>
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<tr>
<td>Recognize that time can be measured</td>
<td></td>
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<td>8.1.K.A</td>
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<tr>
<td>Explain that history is the story of our past</td>
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<td>8.1.K.C</td>
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<tr>
<td>Identify that we learn about history from primary and secondary sources</td>
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<td>8.1.K.C</td>
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### Grade 1

<table>
<thead>
<tr>
<th>Social Studies 1A Units and Objectives</th>
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<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit 1: Time for School</strong></td>
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<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain why students go to school</td>
<td>5.1.1.A, 5.1.1.B,</td>
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<td></td>
<td>5.1.1.E, 5.2.1.A</td>
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<tr>
<td>Define and give examples of rules</td>
<td>5.1.1.A, 5.1.1.B,</td>
<td>6.1.1.D</td>
<td></td>
<td>8.4.1.D</td>
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<td></td>
<td>5.1.1.D, 5.2.1.A,</td>
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<tr>
<td></td>
<td>5.2.1.D</td>
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<tr>
<td>Read a calendar</td>
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<td>8.3.1.C</td>
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</tr>
<tr>
<td>Recognize changes between past and present</td>
<td></td>
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<tr>
<td>Understand the meaning of the word “group”</td>
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<td>8.2.1.A</td>
<td></td>
</tr>
<tr>
<td>Unit 2: In My Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Obtain information using oral sources, such as conversations, interviews, and music</td>
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<td>8.1.1.C</td>
</tr>
<tr>
<td>Identify buildings in relation to the school and neighborhood</td>
<td></td>
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<td>7.1.1.A, 7.2.1.A</td>
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<tr>
<td>Recognize that communities include people who have diverse ethnic origins, customs, and traditions and who make contributions to their communities</td>
<td></td>
<td>6.3.1.A</td>
<td>7.1.C.A</td>
<td></td>
<td>8.2.1.A, 8.4.1.A, 8.2.1.C, 8.4.1.C</td>
<td></td>
</tr>
<tr>
<td>Use map keys to identify locations on simple maps</td>
<td></td>
<td></td>
<td>7.1.1.A, 7.1.1.B</td>
<td></td>
<td>8.1.1.C</td>
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</tr>
<tr>
<td>Explain similarities and differences between life in city, town, suburban, and farm communities</td>
<td></td>
<td>6.3.1.A</td>
<td>7.1.C.A</td>
<td></td>
<td>8.1.1.C</td>
<td></td>
</tr>
<tr>
<td>Distinguish among the past, present, and future and identify changes in the community</td>
<td></td>
<td>6.3.1.A</td>
<td>7.1.C.A</td>
<td></td>
<td>8.1.1.C, 8.2.1.A, 8.3.1.C</td>
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</tr>
<tr>
<td>Locate places using the four cardinal directions</td>
<td></td>
<td></td>
<td>7.1.1.A</td>
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<tr>
<td>Describe various customs and traditions and explain their importance</td>
<td></td>
<td></td>
<td>7.1.C.A</td>
<td></td>
<td>8.2.1.C, 8.4.1.A, 8.4.1.C</td>
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</tr>
<tr>
<td>Obtain information about a topic using a variety of oral sources, such as conversations</td>
<td></td>
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<td>8.1.1.C, 8.2.1.C</td>
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<tr>
<td>Describe selected customs</td>
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<td>8.2.1.C</td>
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<tr>
<td>Describe community celebrations</td>
<td></td>
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<td>8.2.1.C, 8.4.1.A</td>
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<tr>
<td>Describe various customs of families</td>
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<tr>
<td>Obtain information about a topic using a variety of visual sources, such as pictures</td>
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<td>8.1.1.C, 8.2.1.C</td>
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</tr>
<tr>
<td>Social Studies 1A Units and Objectives</td>
<td>Civics and Government</td>
<td>Economics</td>
<td>Geography</td>
<td>History</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td>Explain the need for laws in the community</td>
<td>5.1.1.A, 5.1.1.D, 5.1.1.E</td>
<td></td>
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<td>8.1.1.C</td>
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<tr>
<td>Identify the responsibilities of authority figures in the community</td>
<td>5.3.1.C</td>
<td>6.5.1.A</td>
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<tr>
<td>Describe the role of public officials including the mayor</td>
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<td>6.5.1.B</td>
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<tr>
<td>Obtain information about a topic using a variety of visual sources, such as pictures and literature</td>
<td></td>
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<td>8.1.1.C, 8.2.1.C</td>
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<tr>
<td>Identify main ideas from oral, visual, and print sources</td>
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<td>8.1.1.C</td>
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</tbody>
</table>

**Unit 3: Work! Work! Work!**

| Identify different reasons why people work | 6.5.1.B, 6.5.1.D | 7.3.C.A | 3-4 weeks | 3-4 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Explain how people contribute to their community through their jobs | 5.3.1.B, 5.3.1.C | 6.4.1.A, 6.5.1.B | 8.2.1.A | | |
| Discuss the difference between a need and a want | 6.1.1.C | | | | |
### Social Studies 1A Units and Objectives

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<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify choices that people make about spending and saving</td>
<td>6.5.1.G</td>
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<tr>
<td>Describe ways that goods are transported from place to place</td>
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<td>7.4.1.A</td>
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</table>

### Social Studies 1B Units and Objectives

<table>
<thead>
<tr>
<th>Social Studies 1B Units and Objectives</th>
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<th>Geography</th>
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<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit 1: Our Earth, Our Resources</strong></td>
<td></td>
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<td></td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain how weather impacts place</td>
<td></td>
<td></td>
<td>7.1.C.A, 7.3.1.A</td>
<td></td>
<td></td>
<td>8.3.1.C</td>
</tr>
<tr>
<td>Identify different types of landforms and bodies of water</td>
<td></td>
<td>7.1.1.B, 7.2.1.A, 7.4.1.A</td>
<td></td>
<td></td>
<td>8.3.1.C</td>
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<tr>
<td>Explain actions that help take care of our Earth's resources</td>
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<td>8.3.1.C, 8.3.1.D</td>
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<tr>
<td>Define and give examples of natural resources</td>
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<tr>
<td>Describe how farming has changed over the years</td>
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<td>7.3.1.A</td>
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<tr>
<td>Unit 2: This Is Our Country</td>
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<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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- **Social Studies Objectives**
  - Explain the significance of important national symbols and holidays: 5.1.1.F, 8.2.1.C, 8.3.1.B
  - Describe the Native American societies
  - Discuss how citizens participate in the selection of leaders
  - Discuss the contributions made by Ben Franklin, Eleanor Roosevelt, and Abraham Lincoln: 8.3.1.A
  - Discuss reasons for European migration to the Americas during the colonial period: 8.3.1.C, 8.3.1.D

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<tr>
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<tbody>
<tr>
<td>Unit 3: Our Country, Our World</td>
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<td>3-4 weeks</td>
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- **Estimated Instructional Time**: 3-4 weeks
### Social Studies 1B Units and Objectives

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</table>

#### Estimated Instructional Time

- **Estimated Instructional Time**: The estimated instructional time is provided for each topic, indicating the duration of the activity.

#### Instructional Activities

- **Instructional Activities**: Activities include assignments via the electronic grade book.

#### Social Studies 1B Objectives

- **Civics and Government**: Objectives include explaining the purpose of markets, identifying technological advances that have changed communities, and explaining roles that individuals have played in making technological advances.

- **Economics**: Objectives include explaining how individuals and communities preserve tradition through stories.

- **Geography**: Objectives include reading and interpreting graphs.

- **History**: Objectives include differentiating between neighborhood, community, state, country, and world.

### Grade 2

#### Social Studies 2A Units and Objectives

<table>
<thead>
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#### Estimated Instructional Time

- **Estimated Instructional Time**: The estimated instructional time is provided for each unit, indicating the duration of the unit.

#### Instructional Activities

- **Instructional Activities**: Activities include assignments via the electronic grade book.

#### Social Studies 2A Objectives

- **Civics and Government**: Objectives include differentiating between neighborhood, community, state, country, and world.

- **Economics**: Objectives include reading and interpreting graphs.

- **Geography**: No specific objectives listed for Geography.

- **History**: No specific objectives listed for History.

### Unit 1: Where We Live

- **Unit 1: Where We Live**: The unit focuses on differentiating between neighborhood, community, state, country, and world.

- **Estimated Instructional Time**: The estimated instructional time for the unit is 3-4 weeks.

- **Instructional Activities**: Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.
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<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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</thead>
<tbody>
<tr>
<td>Compare rural, suburban, and urban communities</td>
<td></td>
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<td>7.2.2.A, 7.2.2.B, 7.3.2.A</td>
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<tr>
<td>Read basic maps</td>
<td></td>
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<td></td>
<td>7.1.2.A</td>
<td>8.1.2.C</td>
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<tr>
<td>Solve a problem by following a process</td>
<td></td>
<td></td>
<td>5.2.2.B, 5.2.2.B</td>
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</tr>
<tr>
<td>Unit 2: Our Earth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Identify landforms and bodies of water in pictures and on maps</td>
<td></td>
<td></td>
<td>7.1.2.A, 7.1.2.B</td>
<td>8.1.2.C</td>
<td></td>
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<tr>
<td>Identify natural resources</td>
<td></td>
<td></td>
<td>7.2.2.A, 7.2.2.B</td>
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<tr>
<td>Describe how natural resources are used</td>
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<td>7.4.2.A</td>
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<tr>
<td>Explain the importance of conserving natural resources</td>
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<td>7.2.2.A, 7.4.2.A</td>
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<tr>
<td>Read symbols on maps</td>
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<td>7.1.2.A</td>
<td>8.1.2.C</td>
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<tr>
<td>Unit 3: Working Together</td>
<td></td>
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<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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### Social Studies 2A Units and Objectives

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<thead>
<tr>
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<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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</thead>
<tbody>
<tr>
<td>Identify key vocabulary such as goods, services, producers, and consumers</td>
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<td>assignments via the electronic grade book.</td>
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<tr>
<td>Discuss the choices people make while earning, spending, and saving money</td>
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<td>6.1.C.B, 6.1.C.C, 6.2.2.C, 6.2.2.D, 6.5.2.A, 6.5.2.D, 6.5.2.G</td>
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<tr>
<td>Use a compass rose on a map</td>
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<td>7.1.2.A</td>
<td>8.1.2.C</td>
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<tr>
<td>Read a pie chart</td>
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<tr>
<td>Explain why countries trade</td>
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<td>6.3.2.D</td>
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### Social Studies 2B Units and Objectives

<table>
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<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Unit 1: Our Country Today</strong></td>
<td></td>
<td></td>
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<td></td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain the purpose of government</td>
<td>5.3.2.A, 5.3.2.B, 5.3.2.C</td>
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<tr>
<td>Describe local, state, and federal government</td>
<td>5.3.2.B, 5.3.2.C, 5.3.C.B, 5.3.C.C</td>
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<td>Explain the importance of voting</td>
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<tr>
<td>Read and interpret maps and graphs</td>
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<td>7.1.2.A</td>
<td>8.1.2.C</td>
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<td>Identify and discuss the significance of important symbols of American freedom</td>
<td>5.1.2.F</td>
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<td>8.1.2.C, 8.3.C.C</td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 2: Our Country Long Ago</strong></td>
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<tr>
<td>Describe the characteristics of different Native American groups</td>
<td>5.2.2.D, 5.2.C.B,</td>
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<td>5.4.2.A</td>
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<td>Read and interpret maps and graphs</td>
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<td></td>
<td>7.1.2.A</td>
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<td>8.1.2.C</td>
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<tr>
<td>Describe the European settlements in St. Augustine, Jamestown, and Plymouth</td>
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<tr>
<td>Identify key leaders and events in the creation and expansion of the United States</td>
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<td></td>
<td>5.3.2.B</td>
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<td>Explain the influence of Harriet Tubman, Frederick Douglass, and Sojourner Truth</td>
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<tr>
<td>Unit 3: People and Places in History</td>
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<tr>
<td>Explain why immigrants come to the United States in search of a better life</td>
<td>5.2.2.B</td>
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<tr>
<td>Explain how holidays preserve cultural heritage</td>
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<td>8.2.2.D</td>
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<tr>
<td>Describe the significance of important landmarks in the United States</td>
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<td>8.2.2.D, 8.4.2.A, 8.4.2.C</td>
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<tr>
<td>Explain how historians use artifacts to learn more about the past</td>
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<td>8.1.2.B</td>
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<tr>
<td>Discuss how technology has changed the way people communicate and travel</td>
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# Grade 3

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<tr>
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<tbody>
<tr>
<td><strong>Unit 1: Our Community</strong></td>
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<tr>
<td>Explain what makes communities special</td>
<td>5.1.3.C, 5.2.3.C</td>
<td>6.2.3.A, 6.2.3.G</td>
<td>7.1.3.A, 7.3.3.A</td>
<td>8.2.3.C</td>
<td>3-4 weeks</td>
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<tr>
<td>Define communities</td>
<td>5.1.3.B, 5.1.3.C</td>
<td>6.2.3.G</td>
<td>7.1.3.A, 7.3.3.A</td>
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<tr>
<td>Give examples of different types of communities</td>
<td>5.1.3.B, 5.1.3.C</td>
<td>6.2.3.A, 6.2.3.G</td>
<td>7.1.3.A, 7.3.3.A</td>
<td>8.1.3.B</td>
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<tr>
<td>Read and interpret maps</td>
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<td>7.1.3.A</td>
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<tr>
<td>Explain how individuals contribute to communities</td>
<td>5.2.3.A, 5.2.3.C, 5.2.3.D, 5.3.3.E, 5.3.3.G</td>
<td>6.2.3.A, 6.2.3.G</td>
<td>7.1.3.A, 7.3.3.A, 7.4.3.B</td>
<td>8.1.3.B, 8.2.3.C, 8.2.3.D, 8.3.3.A</td>
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<tr>
<td><strong>Unit 2: People in Communities</strong></td>
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<tbody>
<tr>
<td>Explain how individuals contribute to the growth and well-being of a community</td>
<td>5.2.3.A, 5.2.3.C, 5.2.3.D, 5.3.3.E, 5.3.3.F, 5.3.3.G</td>
<td>7.1.3.A, 7.3.3.A</td>
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<tr>
<td>Explain why people move from place to place</td>
<td>5.2.3.B, 5.3.3.G</td>
<td>6.1.3.A, 6.1.3.C, 6.1.3.D, 6.2.3.B</td>
<td>7.3.3.A</td>
<td></td>
<td>8.2.3.C, 8.2.3.D, 8.3.3.C</td>
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<tr>
<td>Discuss how immigrants blend parts of their old culture with parts of their new community's culture</td>
<td>5.2.3.D, 5.3.3.G</td>
<td>6.1.3.C</td>
<td>7.3.3.A</td>
<td></td>
<td>8.1.3.A, 8.2.3.C, 8.2.3.D, 8.3.3.A, 8.3.3.B, 8.3.3.C, 8.3.3.D, 8.4.3.A, 8.4.3.D</td>
<td></td>
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<tr>
<td>Describe how celebrations honor culture and heritage</td>
<td>5.2.3.A, 5.2.3.D, 5.3.3.G</td>
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<td>7.3.3.A</td>
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<td>8.2.3.D, 8.4.3.A, 8.4.3.B</td>
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<tr>
<td>Read and interpret maps</td>
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<td>7.2.3.A</td>
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**Unit 3: Where Are Communities?**

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<tr>
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<tbody>
<tr>
<td>Explain how physical environment affects the development of communities</td>
<td></td>
<td>6.1.3.A, 6.1.3.B</td>
<td>7.1.3.B, 7.3.3.A, 7.4.3.A</td>
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<td>8.2.3.C</td>
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<tr>
<td>Describe ways in which people adapt to the climate of their environment</td>
<td>5.2.3.C, 5.3.3.G</td>
<td>6.1.3.D, 6.4.3.A</td>
<td>7.1.3.B, 7.3.3.A</td>
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<td>8.1.3.A, 8.2.3.C, 8.2.3.C</td>
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</tr>
<tr>
<td>Discuss how natural resources support community growth and well-being</td>
<td>6.1.3.A, 6.1.3.B, 6.2.3.G</td>
<td>7.1.3.B, 7.3.3.A, 7.4.3.B</td>
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<td>8.2.3.C</td>
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<tr>
<td>Describe the features of mountain, water, and crossroads communities</td>
<td>6.1.3.A, 6.1.3.B, 6.2.3.G</td>
<td>7.1.3.B, 7.2.3.A, 7.3.3.A</td>
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<tr>
<td>Read and interpret maps</td>
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<td>7.1.3.A, 7.2.3.A, 7.3.3.A</td>
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<tr>
<td>Unit 1: History of Communities</td>
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<tr>
<td>Describe how exploration and migration influence present-day North America</td>
<td>5.2.3.B</td>
<td>6.1.3.A, 6.1.3.D</td>
<td>7.3.3.A</td>
<td>8.1.3.A, 8.1.3.B, 8.2.3.C, 8.2.3.D, 8.3.3.C, 8.3.3.D</td>
<td>3-4 weeks</td>
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<tr>
<td>Read, analyze, and interpret maps</td>
<td></td>
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<td>7.1.3.A, 7.3.3.A</td>
<td>8.3.3.B</td>
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<tr>
<td>Identify how technological innovations and inventions affect communities</td>
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<td>7.4.3.A</td>
<td>8.1.3.A, 8.2.3.C, 8.3.3.A</td>
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<tr>
<td>Create a storyboard and commercial about an invention</td>
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<td>8.2.3.C</td>
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<td>Unit 2: Communities at Work</td>
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<tr>
<td>Analyze how earning, spending, and saving affect a budget</td>
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<td>6.1.3.D, 6.2.3.D, 6.2.3.E, 6.5.3.A, 6.5.3.E, 6.5.3.G, 6.5.3.H</td>
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<tr>
<td>Distinguish between needs and wants</td>
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<td>6.1.3.A, 6.1.3.B, 6.2.3.C, 6.2.3.G, 6.3.3.A, 6.5.3.A</td>
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<td>8.2.3.C, 8.3.3.A</td>
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<tr>
<td>Identify economic choices that consumers and business owners regularly make</td>
<td>5.2.3.D</td>
<td>6.1.3.C, 6.1.3.D, 6.2.3.A, 6.2.3.B, 6.2.3.C, 6.2.3.D, 6.2.3.E, 6.2.3.G, 6.4.3.A, 6.4.3.B, 6.5.3.B, 6.5.3.G</td>
<td></td>
<td>7.1.3.B</td>
<td>8.2.3.A, 8.2.3.C, 8.3.3.A</td>
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<tr>
<td>Create a recipe derived from local, natural resources and map the ingredients' origin</td>
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<td>6.1.3.B</td>
<td>7.1.3.B, 7.2.3.A</td>
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<td>8.2.3.C, 8.3.3.B</td>
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<tr>
<td>Connect historical documents and decisions to present-day government</td>
<td>5.1.3.A, 5.1.3.B, 5.1.3.C, 5.1.3.D</td>
<td>6.2.3.A, 6.2.3.B</td>
<td>7.1.3.B, 7.4.3.B</td>
<td>8.1.3.A, 8.1.3.B, 8.2.3.B, 8.2.3.D, 8.3.3.A, 8.3.3.B, 8.3.3.C</td>
<td>3-4 weeks</td>
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<tr>
<td>Define the rights and responsibilities of citizens in a community, a state, and a country</td>
<td>5.1.3.A, 5.1.3.B, 5.1.3.C, 5.2.3.A, 5.2.3.C, 5.2.3.D, 5.3.3.E, 5.3.3.G</td>
<td>6.1.3.D, 6.3.3.A, 6.3.3.B, 6.4.3.A</td>
<td>7.1.3.B, 7.3.3.A</td>
<td>8.2.3.A, 8.2.3.B, 8.2.3.C, 8.3.3.A</td>
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</tr>
<tr>
<td>Describe the structure of state government and identify current leaders</td>
<td>5.1.3.A, 5.1.3.B, 5.1.3.C, 5.1.3.D, 5.2.3.C, 5.3.3.A, 5.3.3.B, 5.3.3.E</td>
<td>6.3.3.A, 6.3.3.B, 6.3.3.C</td>
<td>7.1.3.B, 7.3.3.A, 7.4.3.B</td>
<td>8.2.3.A, 8.2.3.B, 8.2.3.C, 8.3.3.A</td>
<td></td>
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</tr>
<tr>
<td>Create a utopian community that defines leaders' and citizens' responsibilities, government services, and laws.</td>
<td>5.1.3.A, 5.1.3.B, 5.1.3.C, 5.1.3.D, 5.2.3.A, 5.2.3.C, 5.2.3.D, 5.3.3.A, 5.3.3.B, 5.3.3.D, 5.3.3.E, 5.3.3.G</td>
<td>6.1.3.B, 6.2.3.A</td>
<td>7.1.3.B, 7.3.3.A, 7.4.3.B</td>
<td>8.2.3.C, 8.3.3.A</td>
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## Grade 4

<table>
<thead>
<tr>
<th>Social Studies 4A Units and Objectives</th>
<th>Civics and Government</th>
<th>Economics</th>
<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Living in the United States</strong></td>
<td></td>
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<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Identify the five geographic regions of the United States</td>
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<td>7.1.4.A, 7.1.4.B, 7.2.4.A</td>
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<tr>
<td>Describe factors that make each region unique</td>
<td></td>
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<td></td>
<td>7.2.4.A, 7.2.4.B</td>
<td>8.3.4.A</td>
</tr>
<tr>
<td>Identify rights and responsibilities of citizenship</td>
<td>5.2.4.A, 5.2.4.C, 5.2.4.D, 5.3.4.D</td>
<td>6.1.4.D</td>
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<td>8.3.4.C</td>
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<tr>
<td>Explain why trade is important to societies</td>
<td>6.1.4.B, 6.4.4.B, 6.1.4.A, 6.1.4.D</td>
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<td></td>
<td></td>
<td>7.3.4.A</td>
<td>8.3.4.C, 8.3.4.D, 8.4.4.C</td>
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<tr>
<td><strong>Unit 2: The Northeast</strong></td>
<td></td>
<td></td>
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<td>3-4 weeks</td>
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</table>

Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.
<table>
<thead>
<tr>
<th>Social Studies 4A Units and Objectives</th>
<th>Civics and Government</th>
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<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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</thead>
<tbody>
<tr>
<td>Discuss the importance of the Chesapeake Bay and other bays in the region</td>
<td>6.1.4.A</td>
<td></td>
<td>7.2.4.A, 7.2.4.B, 7.4.4.A</td>
<td>8.1.4.A</td>
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<tr>
<td>Describe the societies that were formed in the Northeast region</td>
<td>5.2.4.B</td>
<td>6.1.4.D, 6.5.4.B</td>
<td>7.3.4.A, 7.4.4.A, 7.4.4.B</td>
<td>8.1.4.A, 8.3.4.C, 8.3.4.D</td>
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<tr>
<td>Identify abolitionists and explain how they worked to abolish slavery</td>
<td>5.3.4.F, 5.3.4.G, 5.2.4.B, 5.3.4.D</td>
<td>6.1.4.D</td>
<td>7.3.4.A</td>
<td>8.1.4.B, 8.3.4.D, 8.3.4.D</td>
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<tr>
<td>Explain how Northeastern cities have grown and changed over time</td>
<td>5.2.4.B, 5.3.4.D</td>
<td>6.5.4.B</td>
<td>7.3.4.A, 7.4.4.A, 7.4.4.B</td>
<td>8.1.4.A, 8.1.4.B, 8.3.4.C, 8.3.4.D</td>
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**Unit 3: The Southeast**

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<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td>Identify the main areas of the Southeast region</td>
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<td></td>
<td></td>
<td>7.1.4.A, 7.1.4.B, 7.2.4.A</td>
<td>assignments via the electronic grade book.</td>
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<tr>
<td>Discuss the impact of climate and resources on the Southeast</td>
<td>6.1.4.A</td>
<td></td>
<td>7.2.4.A, 7.2.4.B, 7.4.4.A</td>
<td>8.1.4.A</td>
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<tr>
<td>Describe the historical events that shaped Southeast region</td>
<td>5.2.4.B, 5.3.4.D</td>
<td>6.1.4.D</td>
<td>7.3.4.A</td>
<td>8.1.4.B, 8.3.4.D</td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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### Social Studies 4A Units and Objectives

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<th>History</th>
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<tr>
<td>Discuss the conditions that have led to growth and change in Southeast cities</td>
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<td>6.1.4.D, 6.5.4.B</td>
<td>7.3.4.A, 7.4.4.A, 7.4.4.B</td>
<td>8.3.4.C, 8.3.4.D</td>
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### Social Studies 4B Units and Objectives

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<tbody>
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<td><strong>Unit 1: The Midwest</strong></td>
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<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Discuss the importance of the Great Lakes</td>
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<td>7.2.4.A, 7.2.4.B, 7.4.4.A</td>
<td>8.1.4.A</td>
<td>7.2.4.A, 7.2.4.B, 7.4.4.A</td>
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<tr>
<td>Identify and describe important geographic features of the Midwest</td>
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<td>7.1.4.A, 7.1.4.B, 7.4.4.A</td>
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<td>7.1.4.A, 7.1.4.B, 7.4.4.A</td>
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<tr>
<td>Trace the historical development of the region</td>
<td>5.3.4.D</td>
<td>6.1.4.D</td>
<td>7.3.4.A, 7.4.4.B</td>
<td>8.1.4.A, 8.1.4.B, 8.3.4.D</td>
<td>5.3.4.D</td>
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<tr>
<td>Identify the different groups who have settled in the Midwest and discuss their contributions to the region</td>
<td>5.2.4.B, 5.3.4.D</td>
<td>6.5.4.B, 6.1.4.D</td>
<td>7.3.4.A, 7.4.4.A, 7.4.4.B</td>
<td>8.1.4.B, 8.3.4.D</td>
<td>5.2.4.B, 5.3.4.D</td>
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<td>Social Studies 4B Units and Objectives</td>
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<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td><strong>Unit 2: The Southwest</strong></td>
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<tr>
<td>Explain how the geographic features of the Southwest have influenced Southwestern culture</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Discuss the contributions of different groups who have lived in the Southwest</td>
<td>5.2.4.B, 5.3.4.D</td>
<td>6.5.4.B, 6.1.4.D</td>
<td>7.3.4.A, 7.4.4.A</td>
<td>8.1.4.A</td>
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<tr>
<td>Explain how people have adapted to the climate and geography of the region</td>
<td></td>
<td>6.1.4.A, 6.1.4.D</td>
<td>7.2.4.B, 7.3.4.A, 7.4.4.A</td>
<td>8.1.4.A</td>
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<tr>
<td><strong>Unit 3: The West</strong></td>
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## Social Studies 4B Units and Objectives

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<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Describe the geographic features of the West</strong></td>
<td></td>
<td></td>
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<td>7.1.4.A, 7.1.4.B, 7.2.4.A, 7.2.4.B</td>
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</tr>
<tr>
<td><strong>Compare and contrast the climates of Western states</strong></td>
<td></td>
<td></td>
<td>7.2.4.A, 7.2.4.B</td>
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<tr>
<td><strong>Identify the natural resources of the West</strong></td>
<td>6.1.4.A</td>
<td>7.2.4.A</td>
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<tr>
<td><strong>Trace the cultural development of the West</strong></td>
<td>5.2.4.C, 5.3.4.D</td>
<td>6.5.4.B, 6.1.4.D</td>
<td>7.3.4.A, 7.4.4.A, 7.4.4.B</td>
<td>8.1.4.A, 8.1.4.B, 8.3.4.C, 8.3.4.D</td>
<td></td>
</tr>
<tr>
<td><strong>Identify and describe the different communities established in the West</strong></td>
<td>5.2.4.B, 5.2.4.C, 5.3.4.D</td>
<td>6.5.4.B, 6.1.4.A, 6.1.4.D</td>
<td>7.3.4.A, 7.4.4.A, 7.4.4.B</td>
<td>8.1.4.B, 8.3.4.C, 8.3.4.D</td>
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## Pennsylvania State History 4

<table>
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<tr>
<th>Pennsylvania State History 4 Units and Objectives</th>
<th>Civics and Government</th>
<th>Economics</th>
<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Unit 1: Geography</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5-6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td><strong>Explore the five themes of geography.</strong></td>
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<td>7.4.4.A, 7.4.4.B, 7.1.4.A, 7.1.4.B, 7.2.4.A, 7.2.4.B</td>
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<tr>
<td>Pennsylvania State History 4 Units and Objectives</td>
<td>Civics and Government</td>
<td>Economics</td>
<td>Geography</td>
<td>History</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td>Explain how humans impact the environment.</td>
<td>7.4.4.A, 7.4.4.B</td>
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<tr>
<td>Compare and contrast the cultures of indigenous groups.</td>
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</tr>
<tr>
<td>Synthesize information about the culture of the native inhabitants of the state through the use of multiple resources.</td>
<td>8.2.4.A, 8.2.4.B, 8.2.4.D</td>
<td>8.2.4.A, 8.2.4.B, 8.1.4.B, 8.2.4.D</td>
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<tr>
<td><strong>Unit 2: History</strong></td>
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<tr>
<td>Identify the economic, geographic, and religious motives of migration to the Americas and settlement in the state</td>
<td>6.1.4.A, 6.1.4.B, 6.2.4.G</td>
<td>7.4.4.A, 7.4.4.B</td>
<td>8.2.4.D, 8.2.4.A, 8.1.4.A</td>
<td>5-6 weeks</td>
<td></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Trace the course of events in the exploration, settlement and expansion of Pennsylvania</td>
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<tr>
<td>Describe the living conditions and daily life and how it changed over time, including how Pennsylvanians' lives were affected by various wars</td>
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<tr>
<td>Pennsylvania State History 4 Units and Objectives</td>
<td>Civics and Government</td>
<td>Economics</td>
<td>Geography</td>
<td>History</td>
<td>Estimated Instructional Time</td>
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<tr>
<td>Identify key figures who contributed to the establishment and growth of Pennsylvania</td>
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<td>8.2.4.D, 8.2.4.A</td>
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<tr>
<td>Learn about how Pennsylvania helped to shape our nation</td>
<td>5.1.4.C, 5.1.4.D</td>
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<tr>
<td><strong>Unit 3: Economy</strong></td>
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<td>5-6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe the major characteristics of Pennsylvania’s economy and understand how its economy has changed</td>
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<tr>
<td>Understand and examine basic economic principles, such as producer, consumer, goods, services, needs, and wants</td>
<td>6.1.4.A, 6.1.4.B, 6.1.4.C</td>
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<tr>
<td>Examine and analyze the role of past and present technology in Pennsylvania’s economy</td>
<td>6.1.4.B</td>
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<tr>
<td>Explain key industries in Pennsylvania and how have they changed over time</td>
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<td>Unit 4: Culture</td>
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<td>5-6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain why having cultural awareness can help you be a better citizen</td>
<td>5.3.4.F, 5.3.4.G, 5.2.4.D</td>
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<tr>
<td>Identify some of the different cultural influences evident in your community</td>
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<td>8.2.4.A, 8.2.4.C</td>
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<td>Explore some of the most famous landmarks in Pennsylvania and their significance</td>
<td>5.1.4.F</td>
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<td>8.2.4.B</td>
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<tr>
<td>Identify different Pennsylvania traditions and celebrations</td>
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<td>8.2.4.A, 8.2.4.C</td>
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<td>Describe the different kinds of art found in Pennsylvania and the differences among them</td>
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<td>8.2.4.B</td>
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<tr>
<td>Unit 5: Government</td>
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Appendix A.5 Alignments – Social Studies K-12
<table>
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<th>Economics</th>
<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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</thead>
<tbody>
<tr>
<td>Identify the roles of the three branches of government</td>
<td>5.3.4.A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain how the branches of government work together to serve the needs of citizens</td>
<td>5.3.4.A</td>
<td></td>
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<tr>
<td>Describe key positions of authority within the state government</td>
<td>5.3.4.A, 5.3.4.B, 5.3.4.C</td>
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<tr>
<td>Explain why society needs rules and laws</td>
<td>5.2.4.A, 5.2.4.B, 5.1.4.B</td>
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<tr>
<td>Identify positions of authority in Pennsylvania’s state government</td>
<td>5.3.4.D</td>
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## Grade 5

<table>
<thead>
<tr>
<th>Social Studies 5A Units and Objectives</th>
<th>Civics and Government</th>
<th>Economics</th>
<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Unit 1: Early Life, East and West</strong></td>
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<tr>
<td>Describe settlements in North America prior to European settlement</td>
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<td>6.1.5.D, 6.5.5.D</td>
<td>7.3.5.A, 7.4.5.B</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain how Native American groups adapted to their environment</td>
<td></td>
<td>6.1.5.B, 6.2.5.G, 6.4.5.A</td>
<td>7.1.5.A, 7.2.5.A, 7.3.5.A, 7.4.5.A, 7.4.5.B</td>
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<tr>
<td>Describe the cultural characteristics of Native American groups in North America</td>
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<td>6.2.5.G, 6.1.5.A, 6.1.5.B, 6.5.5.A</td>
<td>7.1.5.A, 7.1.5.B, 7.3.5.A, 7.4.5.B</td>
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<td>8.3.5.A, 8.3.5.D</td>
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<tr>
<td>Describe trade between Europe, Africa, and Asia</td>
<td>5.3.5.G</td>
<td>6.1.5.A, 6.1.5.B, 6.1.5.C, 6.2.5.A, 6.2.5.B, 6.2.5.G, 6.4.5.A, 6.4.5.B</td>
<td>7.1.5.B</td>
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<td>8.3.5.D, 8.4.5.A, 8.4.5.B</td>
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<tr>
<td>Identify course of events that sparked European exploration</td>
<td></td>
<td>6.1.5.A, 6.1.5.C, 6.1.5.D, 6.3.5.B, 6.4.5.B, 6.5.5.B, 6.5.5.D</td>
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<td></td>
<td>8.4.5.A, 8.4.5.B</td>
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<tr>
<td>Social Studies 5A Units and Objectives</td>
<td>Civics and Government</td>
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<td>Geography</td>
<td>History</td>
<td>Estimated Instructional Time</td>
<td>Instructional Activities</td>
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<tr>
<td><strong>Unit 2: Connections Across Continents</strong></td>
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<tr>
<td>Discuss the significance of Columbus’s voyages</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain the impact of the Columbian Exchange on world trade and culture</td>
<td>5.2.5.C, 5.3.5.G</td>
<td>6.1.5.A, 6.1.5.C, 6.1.5.D, 6.2.5.A, 6.2.5.B, 6.2.5.G, 6.4.5.A, 6.4.5.B</td>
<td>7.3.5.A</td>
<td></td>
<td>8.3.5.C, 8.3.5.D, 8.4.5.A, 8.4.5.B</td>
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<tr>
<td>Explain how American settlements impacted European nations</td>
<td>5.3.5.F</td>
<td>6.1.5.C, 6.5.5.A</td>
<td></td>
<td>7.3.5.A</td>
<td>8.1.5.B, 8.3.5.C, 8.4.5.A, 8.4.5.B</td>
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<tr>
<td>Describe the conditions that motivated Europeans to develop colonies in the Americas</td>
<td>5.3.5.G, 5.3.5.F</td>
<td>6.1.5.A, 6.1.5.C, 6.1.5.D</td>
<td>7.3.5.A, 7.4.5.A</td>
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<td>8.1.5.B, 8.4.5.A, 8.4.5.B</td>
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<tr>
<td>Describe conditions in early English settlements</td>
<td>6.1.5.D, 6.2.5.A, 6.5.5.A</td>
<td>6.1.5.D, 6.2.5.A, 6.5.5.A</td>
<td>7.3.5.A, 7.4.5.A</td>
<td>8.3.5.D</td>
<td>8.4.5.A</td>
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<td><strong>Unit 3: Colonial Life in North America</strong></td>
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<tr>
<td>Social Studies 5A Units and Objectives</td>
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<td>Geography</td>
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<td>Instructional Activities</td>
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<tr>
<td>Describe the economic development of the English colonies</td>
<td>5.2.5.C</td>
<td>6.1.5.B, 6.1.5.C, 6.2.5.A, 6.2.5.G, 6.3.5.B, 6.4.5.A, 6.4.5.B, 6.5.5.A, 6.5.5.B</td>
<td>7.3.5.A, 7.4.5.A, 7.4.5.B</td>
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<td>8.3.5.A, 8.3.5.C, 8.3.5.D, 8.4.5.A</td>
<td>hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Compare and contrast the different regions in the English colonies</td>
<td>5.2.5.C</td>
<td>6.1.5.D, 6.5.5.A</td>
<td>7.1.5.A, 7.1.5.B, 7.2.5.A, 7.3.5.A, 7.4.5.A, 7.4.5.B</td>
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<td>8.3.5.A, 8.3.5.D, 8.4.5.A</td>
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<tr>
<td>Describe conditions in the colonies</td>
<td></td>
<td>6.1.5.D</td>
<td>7.3.5.A, 7.4.5.B</td>
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<td>8.3.5.A</td>
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<tr>
<td>Explain the causes and effects of the spread of slavery in the colonies</td>
<td>5.3.5.G</td>
<td>6.1.5.A, 6.1.5.C, 6.1.5.D, 6.5.5.D</td>
<td>7.3.5.A, 7.4.5.A, 7.4.5.B</td>
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<td>8.3.5.C, 8.3.5.D</td>
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<tr>
<td>Identify the causes and effects of the French and Indian War</td>
<td>5.3.5.G, 5.3.5.F</td>
<td>6.1.5.A, 6.1.5.C, 6.1.5.D, 6.5.5.D</td>
<td>7.4.5.A</td>
<td></td>
<td>8.1.5.B, 8.3.5.C, 8.3.5.D, 8.4.5.A, 8.4.5.B</td>
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</table>

**Unit 4: The American Revolution**

<p>| Identify the sources of tension between Great Britain and the 13 English colonies | 5.2.5.C, 5.4.5.B | 6.1.5.A, 6.1.5.D, 6.5.5.D | 7.3.5.A | | 8.3.5.C, 8.3.5.D, 8.4.5.A, 8.4.5.B | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. | 3-4 weeks |</p>
<table>
<thead>
<tr>
<th>Social Studies 5A Units and Objectives</th>
<th>Civics and Government</th>
<th>Economics</th>
<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the contributions of significant individuals during the period of the American Revolution</td>
<td>5.1.5.C, 5.2.5.A, 5.3.5.G</td>
<td>6.1.5.C, 6.1.5.D, 6.5.5.D</td>
<td></td>
<td>8.3.5.C, 8.3.5.D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyze information by identifying cause-and-effect relationships</td>
<td>5.2.5.C</td>
<td></td>
<td></td>
<td></td>
<td>8.3.5.C, 8.3.5.D</td>
<td></td>
</tr>
<tr>
<td>Describe the significance of the Declaration of Independence</td>
<td>5.1.5.B, 5.1.5.D, 5.2.5.A, 5.3.5.B, 5.3.5.F, 5.4.5.B</td>
<td>6.1.5.C</td>
<td></td>
<td>8.3.5.C, 8.3.5.D, 8.3.5.B, 8.4.5.B</td>
<td></td>
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</tr>
<tr>
<td>Identify the perspectives of Loyalists and Patriots</td>
<td>5.1.5.C, 5.2.5.C, 5.3.5.G</td>
<td></td>
<td></td>
<td>8.1.5.B, 8.3.5.A, 8.3.5.C, 8.3.5.D, 8.4.5.B</td>
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</tbody>
</table>

**Unit 5: Life in a New Nation**

| Use primary sources to acquire information                                                            | 8.1.5.B, 8.3.5.B, 8.1.5.C, 8.4.5.B, 8.3.5.B |          |         |         |                                                                                     | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |
| Identify the contributions of significant individuals during the period following the American Revolution | 5.1.5.C, 5.2.5.C, 5.3.5.G, 5.4.5.B |          |         | 8.3.5.C, 8.3.5.D |                                                                                     |                                                                                                                                                                                                                           |
| Explain the significance of the U.S. Constitution and the Bill of Rights                             | 5.1.5.A, 5.1.5.B, 5.1.5.D, 5.1.5.E, 5.2.5.B, 5.3.5.A, 5.3.5.B, 5.3.5.F | 6.1.5.C |          | 8.3.5.C, 8.3.5.D, 8.3.5.B, 8.4.5.B |                                                                                     |                                                                                                                                                                                                                           |
### Social Studies 5A Units and Objectives

<table>
<thead>
<tr>
<th>CIVICS AND GOVERNMENT</th>
<th>ECONOMICS</th>
<th>GEOGRAPHY</th>
<th>HISTORY</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the conditions that led to westward expansion</td>
<td>5.2.5.A, 5.3.5.F</td>
<td>6.1.5.A, 6.1.5.C, 6.1.5.D, 6.3.5.B, 6.5.5.D</td>
<td>7.2.5.A, 7.3.5.A, 7.4.5.A, 7.4.5.B</td>
<td>8.3.5.C, 8.3.5.D</td>
<td></td>
</tr>
<tr>
<td>Explain the causes and effects of the War of 1812</td>
<td>5.1.5.C, 5.2.5.A, 5.3.5.F</td>
<td>6.1.5.C, 6.1.5.D, 6.5.5.D</td>
<td>7.4.5.A</td>
<td>8.3.5.C, 8.3.5.D, 8.4.5.A, 8.4.5.B</td>
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### Social Studies 5B Units and Objectives

**Unit 1: A Growing Nation**

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<th>CIVICS AND GOVERNMENT</th>
<th>ECONOMICS</th>
<th>GEOGRAPHY</th>
<th>HISTORY</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td>Use primary sources to acquire information</td>
<td></td>
<td></td>
<td></td>
<td>8.1.5.B, 8.3.5.B, 8.1.5.C, 8.4.5.B</td>
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</tr>
<tr>
<td>Identify the contributions of significant individuals to change and expansion in the United States in the early 1800s</td>
<td>5.1.5.C, 5.2.5.B, 5.2.5.C, 5.3.5.B, 5.3.5.G, 5.3.5.F</td>
<td>6.1.5.C, 6.1.5.D, 6.5.5.D</td>
<td>7.2.5.A, 7.3.5.A, 7.4.5.A, 7.4.5.B</td>
<td>8.3.5.C, 8.3.5.D</td>
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</tr>
<tr>
<td>Analyze information by comparing and contrasting</td>
<td></td>
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<td></td>
<td>8.3.5.A, 8.3.5.C, 8.3.5.D, 8.3.5.B</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, Webmail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Social Studies 5B Units and Objectives</td>
<td>Civics and Government</td>
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<td>Geography</td>
<td>History</td>
<td>Estimated Instructional Time</td>
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<tr>
<td><strong>Unit 2: War Divides the Nation</strong></td>
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<td>4-5 weeks</td>
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<tr>
<td>Use primary sources to acquire information</td>
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<td>8.1.5.B, 8.3.5.B, 8.1.5.C, 8.4.5.B</td>
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<tr>
<td>Identify the contributions of significant individuals during the time leading up to and including the U.S. Civil War</td>
<td>5.1.5.C, 5.1.5.E, 5.2.5.A, 5.2.5.C, 5.3.5.B, 5.3.5.G, 5.3.5.F</td>
<td>6.1.5.C, 6.1.5.D, 6.3.5.B, 6.5.5.D</td>
<td>7.3.5.A</td>
<td>8.3.5.C, 8.3.5.D</td>
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<tr>
<td>Analyze information by using supporting details to determine the main idea</td>
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<td>8.3.5.A, 8.3.5.C, 8.3.5.D, 8.3.5.B</td>
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<tr>
<td><strong>Unit 3: Expansion and Change</strong></td>
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<td>4-5 weeks</td>
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<tr>
<td>Use primary sources to acquire information</td>
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<td></td>
<td>8.1.5.B, 8.3.5.B, 8.1.5.C, 8.4.5.B</td>
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<td>Social Studies 5B Units and Objectives</td>
<td>Civics and Government</td>
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<tr>
<td>Identify the contributions of significant individuals in the United States during the late-1800s</td>
<td>5.1.5.C, 5.1.5.E, 5.2.5.A, 5.2.5.C, 5.3.5.B, 5.3.5.G, 5.3.5.F, 5.3.5.H</td>
<td>6.1.5.C, 6.1.5.D, 6.3.5.B, 6.5.5.D</td>
<td>7.3.5.A</td>
<td>8.3.5.C, 8.3.5.D</td>
<td>4-5 weeks</td>
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<tr>
<td>Analyze information by sequencing events</td>
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<td>Unit 4: The United States and the World</td>
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<tr>
<td>Use primary sources to acquire information</td>
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<td>8.1.5.B, 8.3.5.B, 8.1.5.C, 8.4.5.B</td>
</tr>
<tr>
<td>Identify the accomplishments of notable individuals who have made contributions to society in civil rights, women's rights, military actions, and politics</td>
<td>5.1.5.C, 5.1.5.E, 5.2.5.A, 5.2.5.B, 5.2.5.C, 5.3.5.B, 5.3.5.G, 5.3.5.F, 5.3.5.H</td>
<td>6.1.5.C, 6.1.5.D, 6.3.5.B, 6.5.5.D</td>
<td>7.3.5.A</td>
<td>8.3.5.A, 8.3.5.C, 8.3.5.D</td>
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<td>Analyze information by summarizing</td>
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<td>8.3.5.A, 8.3.5.C, 8.3.5.D, 8.3.5.B</td>
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## Grade 6

<table>
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<th>Social Studies 6A Units and Objectives</th>
<th>Civics and Government</th>
<th>Economics</th>
<th>Geography</th>
<th>History</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tbody>
<tr>
<td><strong>Unit 1: Early Civilizations A</strong></td>
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<td>4-5 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain how historians measure and organize time</td>
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<td>8.1.6.A</td>
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<td>Identify the tools that historians use to research and record the past</td>
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<td>7.1.6.A</td>
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<td>8.1.6.B, 8.4.6.B</td>
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<tr>
<td>Explain how geography influenced early civilizations</td>
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<td></td>
<td>7.1.6.A, 7.1.6.B</td>
<td></td>
<td>8.4.6.C</td>
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<tr>
<td><strong>Unit 2: Early Civilizations B</strong></td>
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<td></td>
<td></td>
<td></td>
<td>4-5 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Unit 3: The Ancient World A</td>
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<td><strong>Unit 1: The Ancient World B</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td><strong>Unit 2: New empires and New Faiths A</strong></td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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**Unit 3: New Empires and New Faiths B**


Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

The estimated instructional time is 4-5 weeks.
## Grade 7

<table>
<thead>
<tr>
<th>Social Studies 7A Units and Objectives</th>
<th>Geography</th>
<th>History</th>
<th>Economics</th>
<th>Civics and Government</th>
<th>Estimated Instructional Time</th>
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<td><strong>Unit 1: Focus on History, Part I</strong></td>
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<tr>
<td>Explain how the Byzantine and Islamic Empires grew and how their cultures spread throughout the globe</td>
<td>7.4.7.A, 7.4.7.A</td>
<td>8.1.7.A, 8.4.7.A, 8.4.7.C</td>
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<td>4-5 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Learn about the early history of Africa and examine some of its great civilizations</td>
<td>7.4.7.A</td>
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<td>5.1.7.B</td>
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<td>Describe the civilizations of the Americas and examine how they were affected by European explorers</td>
<td>7.4.7.A</td>
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<tr>
<td>Explain how Europeans explored new places and uncovered new ideas about the world</td>
<td>7.4.7.A</td>
<td>8.1.7.A, 8.1.7.B, 8.4.7.B, 8.4.7.D</td>
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<tr>
<td>Explain the political revolutions and revolutions in ideas that took place in Europe in the 1700s and 1800s</td>
<td>7.4.7.A</td>
<td>8.1.7.A, 8.1.7.B</td>
<td>5.1.7.B, 5.1.C.B, 5.2.7.B</td>
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<tr>
<td>Trace important events in world history from the early 1900s to today</td>
<td>7.4.7.A</td>
<td>8.1.7.A, 8.1.7.B, 8.4.7.D</td>
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<td>5.2.7.B</td>
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<td>Unit 3: Focus on Geography, Part I</td>
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<td>Describe the five themes of geography and geographers' tools</td>
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<td>8.4.7.A</td>
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<tr>
<td>Explain planet Earth's structure, climate, and vegetation</td>
<td>7.1.7.B, 7.2.7.A</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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Appendix A.5 Alignments – Social Studies K-12
<table>
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<th>Social Studies 7A Units and Objectives</th>
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<th>Civics and Government</th>
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<tr>
<td>Investigate human population and migration</td>
<td>7.1.7.B</td>
<td>8.4.7.A, 8.4.7.C</td>
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**Unit 4: Focus on Geography, Part II**

<p>| Explore culture, society and cultural change                                                       | 7.3.7.A, 7.4.7.B | 8.4.7.A, 8.4.7.C |             |                        |                              |                          |
| Describe Earth's natural resources and energy                                                       | 7.1.7.B, 7.2.7.A |             |             |                        |                              |                          |
| Explain humans' land use and their effect on the environment                                        | 7.1.7.B, 7.2.7.A, 7.3.7.A | 8.4.7.A |             | 6.1.7.A | 4-5 weeks | Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book. |</p>
<table>
<thead>
<tr>
<th>Social Studies 7B Units and Objectives</th>
<th>Geography</th>
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<th>Civics and Government</th>
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<th>Instructional Activities</th>
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<tr>
<td><strong>Unit 1: Build a Regional Background: The U.S. and Canada</strong></td>
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<td></td>
<td></td>
<td></td>
<td>4-5 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain the physical geography of the United States and Canada and describe how geography affects the people of North America</td>
<td>7.1.7.B, 7.2.7.A, 7.3.7.A</td>
<td>8.4.7.C</td>
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<td>6.1.7.A</td>
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<td>Trace the histories of the United States and Canada from European exploration to the present</td>
<td>7.4.7.A, 7.4.7.B</td>
<td>8.2.7.A, 8.3.7.A</td>
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<td>Describe the cultures of the United States and Canada</td>
<td>7.3.7.A, 7.4.7.B</td>
<td>8.3.7.A, 8.3.7.B, 8.3.7.C, 8.3.7.D</td>
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<td>6.2.7.A, 6.2.7.B</td>
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<td><strong>Unit 2: Focus on Countries: The U.S. and Canada</strong></td>
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<td>4-5 weeks</td>
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<td>Social Studies 7B Units and Objectives</td>
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<tr>
<td>Explain the geography, history, and culture of Canada's provinces and territories</td>
<td>7.1.7.A, 7.2.7.A, 7.3.7.A</td>
<td>8.2.7.A</td>
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<td><strong>Unit 3: Build a Regional Background: Latin America</strong></td>
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<td></td>
<td>4-5 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain the physical geography of Latin America and describe how geography affects the people of Central and South America</td>
<td>7.1.7.A, 7.1.7.B, 7.2.7.A, 7.3.7.A</td>
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<td>Trace the history of Latin America before European exploration up to the present</td>
<td>7.4.7.A, 7.4.7.B</td>
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<td>Describe the cultures of Latin American countries</td>
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<tr>
<td>Unit 4: Focus on Countries: Latin America</td>
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<td>4-5 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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Describe the geography, culture, and history of Central America

7.1.7.B, 7.1.7.C, 7.2.7.A, 7.3.7.A

8.2.7.A

Explain the geography, culture, and history of the Caribbean

7.1.7.B, 7.1.7.C, 7.2.7.A, 7.3.7.A

8.2.7.A

Explore the geography, culture, and history of South America

7.1.7.B, 7.1.7.C, 7.2.7.A, 7.3.7.A

8.2.7.A
## Grade 8

<table>
<thead>
<tr>
<th>Social Studies 8A Units and Objectives</th>
<th>Geography</th>
<th>History</th>
<th>Economics</th>
<th>Civics and Government</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
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<tr>
<td>Unit 1: Different Worlds Meet</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Explain Spain and Portugal's influences on the civilizations of the Americas</td>
<td>8.3.8.A, 8.3.8.B</td>
<td>7.3.8.A</td>
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<td>5.2.8.B</td>
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<td>Unit 2: Colonial Settlement</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions,</td>
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<td>Examine the impact of government, religion, and culture on English colonists in America</td>
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<td>7.3.8.A</td>
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<td>5.1.8.A</td>
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<td><strong>Unit 3: Creating a Nation</strong></td>
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<td></td>
<td>5.1.8.B, 5.2.8.B</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<td>Describe the major battles and leaders of the Revolutionary War</td>
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<td>4-5 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Describe the causes and consequences of the War of 1812</td>
<td>8.1.8.A, 8.3.8.B</td>
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<td>5.1.8.C</td>
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<td>Describe the factors that made it possible for American settlers to move west</td>
<td>8.1.8.A, 8.1.8.B</td>
<td>7.1.8.A</td>
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<td>5.1.8.C</td>
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<td>Explain regional differences in the United States and the nation's early foreign policy</td>
<td>8.4.8.C</td>
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<th>Instructional Activities</th>
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<td><strong>Unit 1: The New Republic Part II</strong></td>
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<td><strong>4-5 weeks</strong></td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td>Describe the causes and consequences of the War of 1812</td>
<td>8.1.8.A, 8.3.8.B</td>
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<td>5.1.8.C</td>
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<tr>
<td>Explain the effect the westward expansion of the United States had on Native Americans</td>
<td>8.1.8.A</td>
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<td>5.1.8.C</td>
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<tr>
<td>Describe the factors that made it possible for American settlers to move west</td>
<td>8.1.8.A, 8.1.8.B</td>
<td>7.1.8.A</td>
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<tr>
<td>Unit 2: The Growing Nation</td>
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<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe political and social challenges faced by the United States between 1820 and 1860</td>
<td>8.1.8.A</td>
<td></td>
<td></td>
<td>5.1.8.B, 5.1.8.C</td>
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<td>4-5 weeks</td>
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<td>Explain how the United States continued to grow and acquire new states and territories</td>
<td>8.1.8.A</td>
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<td>5.1.8.C</td>
<td></td>
<td>4-5 weeks</td>
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<tr>
<td>Describe the causes and consequences of the Mexican War</td>
<td>8.1.8.A</td>
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<td>5.1.8.C</td>
<td></td>
<td>4-5 weeks</td>
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<tr>
<td>Compare and contrast the North and South</td>
<td>8.1.8.A, 8.1.8.B</td>
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<td>4-5 weeks</td>
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<tr>
<td>Unit 3: Civil War and Reconstruction</td>
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Describe political and social challenges faced by the United States between 1820 and 1860

Explain how the United States continued to grow and acquire new states and territories

Describe the causes and consequences of the Mexican War

Compare and contrast the North and South
### Social Studies 8B Units and Objectives

<table>
<thead>
<tr>
<th>Social Studies 8B Units and Objectives</th>
<th>Geography</th>
<th>History</th>
<th>Economics</th>
<th>Civics and Government</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe how differing ideas about politics and slavery contributed to sectional tensions</td>
<td>8.1.8.A, 8.1.8.B</td>
<td></td>
<td></td>
<td>5.1.8.B, 5.1.8.C, 5.1.8.D</td>
<td>4-5 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain why some southern states seceded and how the federal government responded</td>
<td>8.1.8.A</td>
<td></td>
<td></td>
<td>5.2.8.B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe what life was like during the Civil War and identify major battles and leaders on both sides</td>
<td>8.1.8.A</td>
<td></td>
<td></td>
<td>5.2.8.B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain how the Union won the Civil War and explore plans for healing the nation</td>
<td>8.1.8.A, 8.1.8.B</td>
<td></td>
<td></td>
<td>5.2.8.B</td>
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</tbody>
</table>

### Unit 4: Modern America Emerges

<table>
<thead>
<tr>
<th>Social Studies 8B Units and Objectives</th>
<th>Geography</th>
<th>History</th>
<th>Economics</th>
<th>Civics and Government</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the expansion of America into the west and around the globe</td>
<td>8.1.8.A, 8.1.8.B</td>
<td>7.1.8.B</td>
<td></td>
<td>5.2.8.B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Social Studies 8B Units and Objectives

<table>
<thead>
<tr>
<th>Geography</th>
<th>History</th>
<th>Economics</th>
<th>Civics and Government</th>
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<th>Instructional Activities</th>
</tr>
</thead>
</table>

### World History

<table>
<thead>
<tr>
<th>World History A Units and Objectives</th>
<th>PA World History Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Reading and Writing for History</strong></td>
<td></td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Develop critical reading skills</td>
<td></td>
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<tr>
<td>Learn the difference between primary and secondary sources</td>
<td>8.1.9.C</td>
<td></td>
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</tr>
<tr>
<td>Identify and organize reliable research sources for writing a research paper</td>
<td>8.1.9.B</td>
<td></td>
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<tr>
<td>Define plagiarism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice methods of citing information to avoid plagiarism</td>
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</tr>
<tr>
<td><strong>Unit 2: Geography and History</strong></td>
<td></td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Analyze geographic factors that have shaped the course of historic events</td>
<td>5.1.W.B, 5.2.W.B</td>
<td></td>
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</tr>
<tr>
<td>World History A Units and Objectives</td>
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<tr>
<td>Understand the purpose and uses of globes and map projections</td>
<td>7.1.W.A, 7.2.W.A</td>
<td></td>
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</tr>
<tr>
<td>Understand the purpose and uses of specific types of maps</td>
<td>7.1.W.A, 7.2.W.A</td>
<td></td>
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</tr>
<tr>
<td>Unit 3: The World Before Modern Times</td>
<td></td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Summarize the development of civilizations in the Americas</td>
<td>5.1.W.B, 5.1.W.F, 5.2.W.A</td>
<td></td>
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</tr>
<tr>
<td>Unit 4: The Early Modern World - Part I</td>
<td></td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Explain the achievements of the Renaissance and the effects of the Protestant Reformation</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
<td></td>
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<tr>
<td>Trace the growing power of monarchs and the rise of absolutism in Europe</td>
<td>5.1.W.B, 5.1.W.F, 5.2.W.A</td>
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<tr>
<td>Unit 5: The Early Modern World - Part II</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
<td>3-4 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Examine the Ottoman, Safavid, and Mogul Empires in Asia and India</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
<td></td>
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</tr>
<tr>
<td>Explain how the Scientific Revolution and Enlightenment changed the way people viewed their world</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
<td></td>
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<tr>
<td>Compare the causes and evaluate effects of the English, French, and American Revolutions</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
<td></td>
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<tr>
<td>Unit 6: World History A Final Exam</td>
<td></td>
<td>2-3 days</td>
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<tr>
<th>World History B Units and Objectives</th>
<th>PA World History Standards Addressed</th>
<th>Estimated Instructional Time</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1: An Era of European Imperialism</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
<td>6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Describe the impact of the Industrial Revolution</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
<td></td>
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</tr>
<tr>
<td>Describe the revolutionary and reform movements that reshaped politics of Europe and the Americas in the 1800s</td>
<td>5.1.W.B, 5.1.W.F, 5.3.W.J</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit 2: The Twentieth Century Crisis</td>
<td></td>
<td>6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson®</td>
</tr>
<tr>
<td>World History B Units and Objectives</td>
<td>PA World History Standards Addressed</td>
<td>Estimated Instructional Time</td>
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<tr>
<td>Describe the causes and impact of World War I</td>
<td>5.1.W.B, 5.1.W.F</td>
<td></td>
<td>(virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Trace the growth of Fascist and Communist dictatorships in Italy, Germany, and the Soviet Union</td>
<td>5.1.W.B, 5.1.W.F, 5.3.W.J</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trace the events that led to World War II; Describe major events and turning points of World War II</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe events that took place during the Holocaust; Describe the impact of World War II on civilian populations</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
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<td></td>
</tr>
<tr>
<td><strong>Unit 3: Toward a Global Civilization</strong></td>
<td></td>
<td>6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
</tr>
<tr>
<td>Summarize the causes and impact of the Cold War; Describe conflicts in Asia and the region’s emergence as an economic powerhouse</td>
<td>5.1.W.B, 5.1.W.F, 8.4.W.A</td>
<td></td>
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</tr>
<tr>
<td>Analyze the legacy of colonial rule in Africa and the challenges facing that continent</td>
<td>5.1.W.B, 5.1.W.F, 5.2.W.B, 5.3.W.J</td>
<td></td>
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</tr>
<tr>
<td>Analyze factors that are leading toward globalization</td>
<td>5.1.W.B, 5.1.W.F, 5.2.W.B, 5.2.W.D, 8.4.W.A</td>
<td></td>
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</tr>
<tr>
<td><strong>Unit 4: World History B Final Exam</strong></td>
<td></td>
<td>2-3 days</td>
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</table>
# U.S. History

<table>
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<tr>
<th>US History A Units and Objectives</th>
<th>PA US History Standards Addressed</th>
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<tbody>
<tr>
<td>Identify the influences on the founders of the United States</td>
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<tr>
<td>Describe ways that industrialization, immigration, and urbanization changed the United States</td>
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</tr>
<tr>
<td><strong>Unit 3: Emergence of the Modern United States</strong></td>
<td></td>
<td>4-5 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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**Unit 4: Prosperity and Depression**


**Unit 4: Review & Final**

| | | 2-3 days | |

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<tr>
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<tr>
<td><strong>Unit 1: World War II and Postwar America</strong></td>
<td></td>
<td>6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 2: Challenges and Change</strong></td>
<td></td>
<td>6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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<tr>
<td><strong>Unit 3: Changing and Enduring Issues</strong></td>
<td></td>
<td>6 weeks</td>
<td>Throughout the unit, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, LiveLesson® (virtual classroom) sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.</td>
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