



# Career Readiness Indicator for the Future Ready PA Index and ESSA Accountability: Guidelines for Evidence Collection, Monitoring, and Reporting

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## **Purpose**

Beginning in the 2017-18 school year, school entities will report student-level data for the Career Readiness Indicator in the [Pennsylvania Information Management System \(PIMS\)](#).<sup>1</sup> This document provides guidance for evidence collection, monitoring, and reporting students for this measure.

## **Introduction**

By 2025, more than six in 10 Pennsylvania jobs will require some form of postsecondary education or training.<sup>2</sup> In addition, the overwhelming majority of STEM jobs in Pennsylvania (91 percent) will require some form of postsecondary education and training.<sup>3</sup> Currently, 45 percent of Pennsylvanians hold these credentials,<sup>4</sup> and a significant skills gap – especially for “middle skills” occupations requiring some postsecondary training but not a four-year degree – continues to persist for the commonwealth’s current and emerging workforce.<sup>5</sup>

Pennsylvania’s economic future depends on having a well-educated and skilled workforce that is prepared to meet the current and projected demands of a global, knowledge-based 21st century economy. Therefore, it is imperative that Pennsylvania students at all educational levels have access to high-quality academic and technical education, as well as opportunities to assess interests, build skills, and identify and explore careers aligned to those interests and skills. Regardless of their postsecondary plans, all students should leave secondary education with a solid foundation in career education and work.<sup>6</sup>

In 2006, the Pennsylvania State Board of Education promulgated regulations (22 Pa. Code Chapter 4)<sup>7</sup> establishing the state Academic Standards for Career Education and Work (CEW standards) and making the standards required education for all students in Pennsylvania. The CEW standards address four areas of knowledge:

- Career Awareness and Preparation (Section 13.1);
- Career Acquisition (Getting a Job) (Section 13.2);
- Career Retention and Advancement (Section 13.3); and
- Entrepreneurship (Section 13.4).<sup>8</sup>

In addition, Pennsylvania regulation (Chapter 339) established the development and implementation of a comprehensive program of K-12 guidance services aligned to the CEW standards and requires all school entities to integrate the CEW standards into the curriculum. Since the adoption of these CEW standards in 2006, the Department has worked with educators, administrators, business and industry leaders, and other stakeholders to develop resources to ensure that all students have access to rigorous, standards-based instruction.<sup>9</sup> (See Appendix D for additional information.)

## Background

To help ensure that all students in Pennsylvania are on track for meaningful postsecondary engagement and success, the Department has included a measure of students' career exploration, preparation, and readiness as part of Pennsylvania's state and federal accountability system through the [Future Ready PA Index](#) and under the [Every Student Succeeds Act \(ESSA\)](#).

The Career Readiness Indicator recognizes efforts to ensure that all students have access to career exploration and preparation activities that are standards-aligned and evidence-based, including the development of career plans and portfolios that help students identify pathways and opportunities for postsecondary success.

The Career Readiness Indicator identifies the percentage of students in a reporting cohort who demonstrate meaningful engagement in career exploration and preparation and implementation of individualized career plans through separate, specific measures based on grade level benchmarks aligned to the CEW standards. The benchmarks are as follows:<sup>1</sup>

- The percentage of students who, by the end of grade 5, demonstrate engagement in career exploration and preparation aligned to the CEW standards, via [PA CareerZone](#) or a locally designed career exploration and preparation program/curriculum.
- The percentage of students who, by the end of grade 8, create an individualized career plan and participate in career preparation activities aligned to the CEW standards.
- The percentage of students who, by the end of grade 11, implement their individualized career plan through ongoing development of a career portfolio and participation in career preparation activities aligned to the CEW standards.

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<sup>1</sup> Note: More detailed definitions, including evidence requirements, can be found in "Implementation" on pages 4-5.

As a part of state and federal accountability, the indicator also aims to promote access and inclusion for career readiness activities for historically underserved students, including English language learners, students with disabilities, economically disadvantaged students, students of color, and students in nontraditional fields.

## Terms and Definitions

**Career Education and Work** – in accordance with 22 Pa. Code § 4.12(5), career education and work – is defined as “understanding career options in relationship to individual interests, aptitudes and skills including the relationship between changes in society, technology, government and economy and their effect on individuals and careers. Development of knowledge and skill in job-seeking and job-retaining competencies and, for students completing vocational-technical programs, the skills to succeed in the occupation for which they are prepared.”<sup>10</sup>

**Career Plan** – In accordance with the CEW standards, a career plan is a “document or similar item developed by the student that identifies a series of educational studies and experiences to prepare them for postsecondary education or work, or both, in a selected career cluster or area.”<sup>11</sup>

**Career Portfolio** – In accordance with the CEW standards, a career portfolio is “an ongoing, individualized collection of materials (electronic or hard copy) that documents a student’s educational performance, career exploration, and employment experiences over time. While there is no prescribed or standard format that a career portfolio must take, it typically includes a range of work, containing assignments by the teacher/counselor and selections by the student. It serves as a guide for the student to transition to postsecondary education/training, or the workplace, or both.”<sup>12</sup>

**College and Career Readiness** – Pennsylvania learners will be prepared for meaningful engagement in postsecondary education, in workforce training, in career pathways, and as responsible, involved citizens.<sup>13</sup>

**Curriculum** – A series of planned instruction aligned with the academic standards in each subject that is coordinated, articulated, and implemented in a manner designed to result in achievement at the proficient level by all students.<sup>14</sup>

**High Priority Occupations** – [High Priority Occupations](#) are job categories that are in demand by employers, have evolving skill needs, and are likely to provide family-sustaining wages. They are occupations that generally require some amount of training but no more than a four-year degree.

**Career/Industry Clusters** – [Career Clusters](#) provide 16 groupings of occupations and career pathways that help students explore similarly grouped career options. Coordinated by the National Association of State Directors of Career Technical Education Consortium, the model serves as an organizing tool for schools, small learning communities, academies and magnet schools to help focus curriculum and bring relevance into the classroom.

**K-12 School Guidance Plans** - 22 Pa. Code § 339.31 requires all school entities integrate the CEW standards into the curriculum and establishes a written plan for the development and implementation of a comprehensive, sequential program of guidance services for kindergarten through 12<sup>th</sup> grade. The plan must be designed to promote equal opportunity and address the guidance service areas outlined in 22 Pa. Code § 339.32, including guidance services provided to AVTS/CTCs and implementation of CEW standards. The local board of school directors must approve the plan, and upon request make it available to the Secretary of Education.<sup>15</sup>

**Nontraditional Careers** – In accordance with the CEW standards, nontraditional careers are defined as fields of work for which individuals from one gender comprise less than 25 percent of the individuals employed in each such occupation or field of work.

**Pennsylvania Career Education and Work (CEW) Standards** – In 2006, the Pennsylvania State Board of Education promulgated regulations (22 Pa. Code Chapter 4)<sup>16</sup> establishing the state Academic Standards for Career Education and Work (CEW standards). These standards describe what students should know and be able to do at four grade levels (3, 5, 8 and 11) in four areas:

- Career Awareness and Preparation (Section 13.1);
- Career Acquisition (Getting a Job) (Section 13.2);
- Career Retention and Advancement (Section 13.3); and
- Entrepreneurship (Section 13.4).<sup>17</sup>

The CEW standards are required education for all students enrolled in Pennsylvania public school entities. Through a comprehensive approach, the CEW standards complement all disciplines and other academic standards by identifying skills and competencies students need to become “career ready.” These skills are identified in the standards, but each school entity determines how the standards inform curriculum and instruction.

**Pennsylvania CareerZone** – Located at [pacareerzone.org](http://pacareerzone.org), Pennsylvania CareerZone is a free online tool developed by the [Pennsylvania Department of Education](http://www.pennsylvania.gov) to assist students with career awareness, exploration, and planning. The site includes an Interest Profiler, Work Importance Profiler, and Assess Yourself assessment based on the Holland Codes for self-exploration, as well as comprehensive information on 900 occupations.

**School Entity** – A local public education provider (for example, school district, charter school, cyber charter school, area vocational-technical school [AVTS], career and technology center [CTC], or intermediate unit).<sup>18</sup>

**Student Evidence** – Student evidence is defined as documentation or artifacts, written or electronic, demonstrating a student’s application of one or more CEW standard.

**Successful Completion** – Denotes a standard in which the school entity evaluates career activity/evidence using the same evaluation policies and procedures the school entity uses to determine mastery and/or passing of a locally-graded assignment. If an activity is not already factored into a course grade, the school entity should evaluate the student’s work in a similar manner to ensure

quality and mastery. In general, participation alone does not demonstrate sufficient evidence of successful completion; instead, evidence must suggest that each student has engaged in meaningful, standards-aligned activities or experiences that enhance career awareness, preparation, readiness, and entrepreneurship.

## **Implementation**

In designing the Career Readiness Indicator, the Department prioritized simplicity, opting for a “yes/no” collection method that captures whether a student has successfully completed standards-aligned activities by grades 5, 8, and 11. As a grade span measure, the Career Readiness Indicator is meant to evaluate how students are engaging in activities and tasks, aligned to CEW standards, which will create a strong foundation of skills, knowledge, and experiences that position them for postsecondary success. Recognizing that career awareness, exploration, and preparation activities should be developed and sustained throughout the continuum of a student’s K-12 education, the Department recommends that school entities consider students’ annual progress towards meeting the grade-level benchmarks for grades 5, 8, and 11, as described below.

Beginning in the 2017-18 school year, school entities will report student-level data for the Career Readiness Indicator in PIMS using the Student Fact Template for Career Standards Benchmark.<sup>19</sup> As with other data collections, school entities will be able to upload student data for this indicator throughout the school year, up until the last collection period (typically June). Additional information regarding collection procedures, timelines, and other technical instructions for submitting the data are available in the 2017-18 PIMS User Manual, Vol. 1.

Initial implementation of this new measure will take place in 2017-18, with full implementation to follow in 2018-19. This means that during the first year of implementation, school entities will be expected to demonstrate that students who are identified as meeting criteria have at least two pieces of evidence accumulated as of that year. In the second year of implementation and beyond, school entities must demonstrate that students have fully met the criteria defined for each grade span.

School entities should use the following criteria when identifying which students meet the grade-level benchmarks aligned to the CEW standards. Examples of evidence are listed in the appendices. It is important to note that not all students must have the same pieces of evidence; instead, the evidence should be individualized to meet the needs of students’ interests and learning styles, and can include activities for specific student populations, including transition plans for students in special education programs, and activities for English Learners, students in CTE programs, and students in online or alternative education placements.

- By the end of grade 5, the student has produced six or more pieces of evidence, or at least two pieces of evidence accumulated by the end of grade 3, and at least two pieces of evidence each year in grade 4 and grade 5. Evidence shall be collected in a manner that validates that all four strands of the CEW standards have been meaningfully addressed.
  - Enter “Y” in Field 10 of the template if the student meets the criteria.
  - Enter “N” in Field 10 of the template if the student does not meet all the criteria.

- By the end grade 8, the student has a career portfolio containing the K-5 grade band evidence and an additional six pieces of evidence, or at least two pieces of additional evidence in each of the following: grade 6, grade 7, grade 8. Evidence shall be collected in a manner that validates that all four strands of the CEW standards have been meaningfully addressed. One of the pieces of evidence for the 6-8 grade band must be the student's individualized career plan.
  - Enter "Y" in Field 10 of the template if the student meets the criteria.
  - Enter "N" in Field 10 of the template if the student does not meet all the criteria.
  
- By the end of grade 11, the student has a career portfolio containing both the K-5 and 6-8 grade band evidence, and an additional eight pieces of evidence, or at least two pieces of evidence each year, collected in the 9-11 grade band that validates all four strands of the CEW standards have been meaningfully addressed. At least two of these pieces of evidence for the 9-11 grade band must demonstrate implementation of the student's individualized career plan.
  - Enter "Y" in Field 10 of the template, if the student meets the criteria.
  - Enter "N" in Field 10 of the template, if the student does not meet all the criteria.

School entities are expected to implement and evaluate all activities counted towards the Career Readiness Indicator with fidelity and rigor, as demonstrated by alignment to CEW standards, demonstration of meaningful engagement in activities that will increase the likelihood of postsecondary success, and/or connection to a student's broader interests, skills, and goals (i.e., personalized learning). Recognizing that these activities should also be aligned to opportunities and needs of communities and regions, and tailored to a student's personal interests and goals, the Department encourages school entities to provide a variety of standards-aligned programs and activities for students to promote career awareness, preparation, readiness, and entrepreneurship. The Department also strongly encourages school entities to partner with their local workforce development boards, chambers of commerce, advisory councils, business and industry, postsecondary institutions, and other community partners in providing these personalized experiences that are connected to local, regional, and state workforce needs. These efforts should also be informed by an analysis of regional and statewide workforce data, including current and future projected openings and skills needs.

Included in the appendices are lists of activities, evidence, and resources that a school entity may use to promote valid and reliable integration of career readiness programming. The tables are designed to provide direction, guidance, examples, and resources to support successful completion of the indicator. The sample instructional activities are not delimiting but rather list the types of activities that may occur. Activities should also be individualized to each student's interests and needs, and should be designed to ensure that all students – including students with disabilities, English learners, and other traditionally underserved students – are able to access high-quality career awareness, exploration, and preparation experiences that prepare them for meaningful postsecondary success.

## Data Reporting and Monitoring

School entities are responsible for reporting individual student data into PIMS to verify the career readiness benchmark was met by each individual student by the end of grades 5, 8, and 11. School entities will be able to submit data regarding students' status for the Career Readiness Indicator throughout the school year, until the final PIMS collection window in June. As with all PIMS data reporting, the school entity is responsible for assuring the quality and sufficiency of evidence provided. The PIMS administrator and chief academic officer at the reporting school entity are encouraged to consult the current PIMS user manual for additional information regarding the submission of data for purposes of state and federal accountability to the Department.<sup>20</sup>

By signing the assurances included with the Accuracy Certification Statement (ACS) provided during PIMS reporting, the school entity's chief academic officer verifies the accuracy of the data reported by the school entity, the successful completion of student evidence/artifacts, and the quality of the program.

During statewide assessment monitoring and the evaluation of approved CTE programs, monitors may request documentation to verify the data reported. Documentation must include student portfolios and/or graded student artifacts resulting from classroom instruction and records of student data. Monitors may request to see lesson plans/curriculum, K-12 guidance plans, agendas from events aligned to CEW standards, scoring guides/rubrics, and/or other applicable evidence to support the reported data.

As a federal accountability measure, the Career Readiness Indicator is factored into determinations for annual meaningful differentiation of schools. The Department will use Career Readiness Indicator data collected during the 2017-18 school year as part of calculations for annual meaningful differentiation; identification of schools for Comprehensive Support and Improvement (CSI) will take place in fall 2018, and every three years following. Further identification of schools in need of Targeted Support and Improvement (TSI) will take place in fall 2019 based on subgroup performance. (For more information regarding Pennsylvania's proposed system of statewide accountability under ESSA, please see Pennsylvania's Consolidated State Plan, available on [PDE's ESSA webpage](#).)

Schools identified for CSI or TSI may be subject to additional evaluation of data, student evidence, and K-12 guidance plans during Special Education and/or Federal Programs auditing. Local education agencies with schools identified for CSI must make their Career Readiness Indicator data, student portfolios and artifacts, and K-12 guidance plans available, as requested, during auditing or technical assistance through the Department.

When evaluating evidence provided by school entities, the Department reserves the right to request additional information and make determinations regarding the accuracy and quality of both the school entity's documentation of evidence as well as the programs and activities counted as evidence of students' successful attainment of career readiness benchmarks. School entities that are not able to provide sufficient evidence of quality or accuracy may need to resubmit or revise their reported data.

## Appendix A: Sample Career Awareness and Preparation Activities for the K-5 Grade Span

**Table 1**  
**Sample Career Awareness and Preparation Aligned to the CEW Standards – Grade Span: K-5**

<p><b>13.1.5</b>  <b>Career Awareness and Preparation</b></p>	<p>A. Describe the impact of individual interests and abilities on career choices.          B. Describe the impact of personal interests and abilities on career choices.          C. Relate the impact of change on both traditional and nontraditional careers.          D. Describe the range of career training programs in the community.          E. Describe the factors that influence career choices.          F. Investigate people’s rationale for making career choices.          G. Identify the components of a career plan.          H. Connect personal interests, abilities, and academic strengths to personal career options.</p>	
<p><b>Sample Instructional Activities</b>  <i>The student will engage in standards-based instruction via...</i></p>		<p><b>Examples of Student Evidence</b>  <i>The student will successfully complete...</i></p>
<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>• Complete an interest inventory and describe how interests will help choose a career. (A, B)</li> <li>• Research traditional and nontraditional careers of interest and describe how they have changed over time. (C)</li> <li>• After a panel presentation by postsecondary partners, and career and technical center faculty and alumni, identify career and training programs available to prepare for careers. (D, F)</li> <li>• Reflect upon interviews with adults or others to create a “what is important to me in a career” list, such as salary, hours, benefits, etc. (E)</li> <li>• Following a presentation by high school students who shared their career goals and career plan components, explain how interests, abilities and other factors impacted their career choices. (G)</li> <li>• Create a list of personal interests and strengths and describe how they match personal career choices. (H)</li> </ul> <p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>• Complete career awareness and preparation activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C, D, E, F, G, H)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>• Reflect on participation in career fairs and days, career assemblies, career panels and speakers. (A, B, C, D, E, F, G, H)</li> </ul>		<p>Aptitude Assessment          Career Inventory          Documentation of Career Plan Components          Grades K-5 “I” Statements<sup>xxi</sup>          Graphic Organizer          Infographic          Interview          Oral Presentation or Performance Rubric          Research Report          Written Reflection</p>

<p><b>Workplace Experiences</b></p> <ul style="list-style-type: none"> <li>● Reflect on participation in industry tours, short-term job shadowing and other and other relevant workplace experiences. (A, B, C, D, E, F, G, H)</li> </ul> <p><b>Training Program Experiences</b></p> <ul style="list-style-type: none"> <li>● Reflect on participation in exposure to career and technical education (CTE) and postsecondary institutions, which may include classroom presentations by faculty or students or on-site visits. (A, B, C, D, E, F, G, H)</li> </ul>		
<p><b>13.2.5 Career Acquisition</b></p>	<p>A. Identify and apply appropriate speaking and listening techniques used in conversation.  B. Identify and review resources available to research job opportunities.  C. Compose and compare a business and personal letter.  D. Identify individualized career portfolio components.  E. Discuss and apply to daily activities essential workplace skills</p>	
<p><b>Sample Instructional Activities</b>  <i>The student will engage in standards-based instruction via...</i></p>		<p><b>Examples of Student Evidence</b>  <i>The student will successfully complete...</i></p>
<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>● Engage in role-play scenario to demonstrate what happens when messages are not clearly given and received. (A)</li> <li>● Research and identify community career opportunities. (B)</li> <li>● Enlist business/community partners as recipients of students' business letter writing. (C)</li> <li>● Develop academic and career goals. (D)</li> <li>● Use a planner to design a personal schedule. (E)</li> </ul> <p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>● Complete career acquisition activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C, D, E)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>● Reflect on participation in career fairs and days, career assemblies, career panels, and speakers. (A, B, C, D, E)</li> </ul>		<p>Business or Personal Letter  Career and Academic Goals  Career Inventory  Grades K-5 "I" Statements  Graphic Organizer  Infographic  Interview Notes  Oral Presentation Rubric  Performance Rubric  Personal Schedule  Research Report  Written Reflection</p>

<p style="text-align: center;"><b>13.3.5 Career Retention and Advancement</b></p>	<p>A. Explain how student attitudes and work habits transfer from home and school to the workplace.          B. Explain the importance of working cooperatively with others at both home and school to complete a task.          C. Identify effective group interaction terms and strategies.          D. Explain budgeting.          E. Develop a personal schedule based on activities and responsibilities at both home and school.          F. Describe the impact of role changes at home, school and at work, and how role changes impact career advancement and retention.          G. Describe how personal interests and abilities impact lifelong learning.</p>	
<p><b>Sample Instructional Activities</b>  <i>The student will engage in standards-based instruction via...</i></p>		<p><b>Examples of Student Evidence</b>  <i>The student will successfully complete...</i></p>
<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>● Following community members' presentations highlighting how personal attitudes and habits transfer from school to work, identify attitudes and work habits important to both home and school. (A)</li> <li>● After participating in project-based learning activities, describe what a team is and how team members work together to achieve a goal. Identify various team roles and effective teaming strategies. (B, C)</li> <li>● Develop a personal budget after discussions with financial institution representatives about how money is distributed in a budget. (D)</li> <li>● Develop a personal schedule based on responsibilities and activities at home and at school. (E)</li> <li>● Interview parents and/or community members about home and career adjustments they made to keep or advance their career. Describe how role changes at home, school and work impact career advancement and retention. (F)</li> <li>● Interview adults to determine what types of new learning they had to participate in to advance or keep their career. (G)</li> <li>● Define and describe how personal interests and abilities impact lifelong learning. (G)</li> </ul> <p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>● Complete career retention activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C, D, E, F, G)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>● Reflect on participation in career fairs and days, career assemblies, career panels and speakers. (A, B, C, D, E, F, G)</li> </ul>		<p>List of Career and Academic Goals          Career Inventory          Grades K-5 "I" Statements          Graphic Organizer          Infographic          Interview Notes          Oral Presentation Rubric          Performance Rubric          Personal Budget          Personal Schedule          Research Report          Written Reflection</p>

<p><b>13.4.5 Entrepreneurship</b></p>	<p>A. Identify the risks and rewards of entrepreneurship.          B. Discuss the entrepreneurial character traits of historical and contemporary entrepreneurs.          C. Discuss the steps entrepreneurs take to bring their goods or services to market.</p>	
<p><b>Sample Instructional Activities</b>  <i>The student will engage in standards-based instruction via...</i></p>		<p><b>Examples of Student Evidence</b>  <i>The student will successfully complete...</i></p>
<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>• Research known entrepreneurs. Describe the struggles and successes they encountered when starting their companies. (A)</li> <li>• Interview local entrepreneurs and identify five positive and negative aspects of their businesses. (A)</li> <li>• Compare and contrast the personality traits that historical entrepreneurs and local entrepreneurs have in common. Describe how traits such as perseverance and resilience lead to successful businesses. (B)</li> <li>• Work with a small group of students to choose a product and create a plan to develop and market that product. (C)</li> </ul> <p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>• Complete entrepreneurship activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C)</li> </ul> <p><b>Building/Community-Based Career Event</b></p> <ul style="list-style-type: none"> <li>• Reflect on participation in lessons, career fairs and days, career assemblies, career panels, and speakers. (A, B, C)</li> </ul>		<p>Grades K-5 "I" Statements          Graphic Organizer          Infographic          Interview Notes          Oral Presentation Rubric          Performance Rubric          Research Report          Written Reflection          Business Plan Outline</p>

**Career Pathways in Action in PA: Creating a Comprehensive K-12 Counseling Program: Lebanon School District**  
 As part of its Chapter 339 requirements, Lebanon School District created a comprehensive K-12 counseling plan and corresponding initiatives to support students through key exploration, planning, and transition points throughout their K-12 education. The school district established a K-12 Counseling Program Advisory Council comprised of students, parents and families, educators, business/industry and community partners, and postsecondary institutions that convenes twice per year to review programming efforts and make recommendations regarding student and community needs.

## Appendix B: Sample Career Planning and Preparation Activities for the 6-8 Grade Span

Table 2 Sample Career Planning and Preparation Activities for CEW Standards - Grade Span: 6-8		
<b>13.1.8 Career Awareness and Preparation</b>	<p>A. Relate careers to individual interests, abilities, and aptitudes.</p> <p>B. Relate careers to personal interests, abilities, and aptitudes.</p> <p>C. Explain how both traditional and nontraditional careers offer or hinder career opportunities.</p> <p>D. Explain the relationship of career training programs to employment opportunities.</p> <p>E. Analyze the economic factors that impact employment opportunities.</p> <p>F. Analyze the relationship of school subjects, extracurricular activities, and community experiences to career preparation.</p> <p>G. Create an individualized career plan.</p> <p>H. Choose personal electives and extracurricular activities based on personal career interests, abilities, and academic strengths.</p>	
<b>Sample Instructional Activities</b> <i>The student will engage in standards-based instruction via...</i>		<b>Examples of Student Evidence</b> <i>The student will successfully complete...</i>
<p><b>Career Guidance Activities:</b></p> <ul style="list-style-type: none"> <li>• After completing an interest and aptitude inventory, research and identify careers that match individual interests, abilities, and aptitudes. (A, B)</li> <li>• Following a panel discussion by community members employed in nontraditional careers, describe the opportunities and struggles associated with nontraditional careers. (C)</li> <li>• Research three different types of career training programs related to interests, aptitudes, and abilities. Describe advantages and disadvantages of each. (D)</li> <li>• After a presentation by local workforce partners about high demand occupations and the factors involved in determining local needs, identify five economic factors to be considered when establishing a career goal. (E)</li> <li>• Interview a 12<sup>th</sup> grade student to understand how school subjects, extracurricular activities, and community experiences shape postsecondary planning. Describe the courses and experiences you should consider in the development of your academic/career plan. (F)</li> <li>• Job-shadow a professional in an area related to individual interests, abilities, and aptitude. List education and training requirements, as well as extracurricular and community activities necessary to pursue this career. (A, B, F)</li> <li>• Based on career interests and academic strengths, confer with parents/guardians, counselors, teachers, and community members to create an academic/career plan which includes career goals, courses, electives, extracurricular and community activities, as well as workplace experiences. (G, H)</li> </ul>		<p>Aptitude Assessment</p> <p>Career Interest Inventory</p> <p>Career Plan</p> <p>Grades 6-8 “I” Statements<sup>xxii</sup></p> <p>Infographic</p> <p>Interview</p> <p>Learning Style Inventory</p> <p>Oral Presentation Rubric</p> <p>Performance Rubric</p> <p>Personality Assessment</p> <p>Research Report</p> <p>Written Reflection</p>

<p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>Complete career awareness and preparation activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C, D, E, F, G, H)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in career fairs and days, career assemblies, career panels, and speakers. (A, B, C, D, E, F, G, H)</li> </ul> <p><b>Workplace Experiences</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in industry tours, job shadowing, and other relevant workplace experiences. (A, B, C, D, E, F, G, H)</li> </ul> <p><b>Training Program Experiences</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in exposure to career and technical education (CTE) programs, CTCs, and postsecondary institutions which may include classroom presentations by faculty or students or on-site visits. (A, B, C, D, E, F, G, H)</li> </ul>		
<p><b>13.2.8 Career Acquisition</b></p>	<p>A. Identify effective speaking and listening skills used in a job interview.  B. Evaluate resources available in researching job opportunities.  C. Prepare a draft of career acquisition documents.  D. Develop an individualized career portfolio.  E. Explain in the career acquisition process, the importance of the essential workplace skills/knowledge.</p>	
<p style="text-align: center;"><b>Sample Instructional Activities</b>  <i>The student will engage in standards-based instruction via...</i></p>		<p style="text-align: center;"><b>Examples of Student Evidence</b>  <i>The student will successfully complete...</i></p>
<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>After watching role play scenarios featuring “good” and “bad” interviews, describe effective speaking and listening skills as they relate to being interviewed. (A)</li> <li>Research, identify, and evaluate different types of sources and websites to search for jobs. (B)</li> <li>As part of a career day session provided by a HR professional, complete a job application and outline for a resume related to a career of interest. (C)</li> <li>After a demonstration by high school students describing how a portfolio is used to organize career development documents, assemble, with parent guidance, a portfolio of artifacts such as an individual career plan, draft application and resume, inventory results and research paper. (D)</li> </ul>	<p>Aptitude Assessment  Career Interest Inventory  Career Plan  Career Portfolio  Grades 6-8 “I” Statements  Infographic  Interview  Learning Style Inventory  Oral Presentation Rubric  Performance Rubric  Personality Assessment  Research Report</p>	

<ul style="list-style-type: none"> <li>Interview business professionals to identify workplace skills required for success in reaching career objectives. Present the information learned in small classroom groups to a panel of entrepreneurs. (E)</li> </ul> <p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>Complete career acquisition activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C, D, E)</li> </ul> <p><b>Building and Community-Based Career Event</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in career fairs and days, career assemblies, career panels, and speakers. (A, B, C, D, E)</li> </ul>		<p>Resume Sample Job Application Written Reflection</p>
<p><b>13.3.8 Career Retention and Advancement</b></p>	<p>A. Determine attitudes and work habits that support career retention and advancement. B. Analyze the role of each participant’s contribution in a team setting. C. Explain and demonstrate conflict resolution skills. D. Analyze budgets and pay statements. E. Identify and apply time management strategies as they relate to both personal and work situations. F. Identify characteristics of the changing workplace including Americans with Disabilities Act accommodations, and explain the impact on jobs and employment. G. Identify formal and informal lifelong learning opportunities that support career retention and advancement.</p>	
<p style="text-align: center;"><b>Sample Instructional Activities</b> <i>The student will engage in standards-based instruction via...</i></p>		<p style="text-align: center;"><b>Examples of Student Evidence</b> <i>The student will successfully complete...</i></p>
<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>Interview three professionals involved in a career related to individual interest. List 5-10 skills that allowed those interviewed to be promoted or advanced in their careers. (A)</li> <li>Evaluate in writing the success of a group project by analyzing the role of each person within the team and team member’s contribution. (B)</li> <li>After role-playing scenarios demonstrating conflict between two students, demonstrate and describe appropriate conflict resolution skills. (C)</li> <li>Complete the PA CareerZone activity “Budgeting Your Future” to understand the cost of items and make priority decisions about money usage. (D)</li> <li>Develop a budget based on the salary of the career area of choice. (D)</li> <li>After a presentation by high school students on effective time management strategies, develop and implement a monthly time schedule that includes time for school, homework, after-school activities, sleep, and recreation. Reflect on success of schedule. Revise as appropriate. (E)</li> <li>Following a presentation by organizations aiding disabled workers, describe how workplace accommodations have impacted employment of disabled workers. (F)</li> </ul>	<p>Written Explanation of Career and Academic Goals Personal Budget Grades 6-8 “I” Statements Infographic Oral Presentation Rubric Performance Rubric Personality Assessment Research Report Schedule or Planning Document Written Reflection</p>	

<ul style="list-style-type: none"> <li>Work in small groups to research three careers of interest. Present formal and informal lifelong learning opportunities that support those careers. (G)</li> </ul> <p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>Complete career retention activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C, D, E, F, G)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in career fairs and days, career assemblies, career panels, and speakers. (A, B, C, D, E, F, G)</li> </ul>		
<p><b>13.4.8 Entrepreneurship</b></p>	<p>A. Compare and contrast entrepreneurship to traditional employment.  B. Evaluate how entrepreneurial character traits influence career opportunities.  C. Identify and describe the basic components of a business plan.</p>	
<p style="text-align: center;"><b>Sample Instructional Activities</b>  <i>The student will engage in standards-based instruction via...</i></p>		<p style="text-align: center;"><b>Examples of Student Evidence</b>  <i>The student will successfully complete...</i></p>
<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>Interview two small business owners and two employees of local businesses. Create a chart that compares wages, benefits, job security, and overhead costs. Create a persuasive statement describing which option you would choose and why. (A)</li> <li>Research successful entrepreneurs related to a career area of your choice. Evaluate and describe how the entrepreneurial character traits of each contributed to career success. (B)</li> <li>Identify an “idea” for a business linked to individual personal interest. Work with two local business owners who could provide guidance on how to “start” a new business and develop a business plan. Develop a business plan outline that includes the components of a business plan. Create a budget and a marketing plan for your business. (C)</li> </ul> <p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>Complete entrepreneurship activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in career fairs and days, career assemblies, career panels, and speakers. (A, B, C)</li> </ul>	<p>Budget  Grades 6-8 “I” Statement  Infographic  Interview  Oral Presentation Rubric  Performance Rubric  Research Report  Written Reflection  Product Blueprint and Marketing Plan</p>	

**Career Pathways in Action in PA: Community Partnerships in Action: Middletown School District**

Middletown School District has used a community and business outreach strategy entitled “Six Fridays” with 7th and 8th grade students and staff for 10 years. Students and educators in grades 7 and 8 spend part or all of five Fridays at a company or business site in Central Pennsylvania that represents careers featured in one of the pathways of the Middletown School District Career Pathway Model: Arts and Communications; Business Finance and Informational Technology; Human Services; Engineering and Industrial Technology; and Science and Health. The events are held every other Friday in September and October. On the sixth Friday, business partners visit the middle school and demonstrate job acquisition and job retention skills such as resume and cover letter writing, interviewing for a job, time management skills, critical thinking, and effective communication and collaboration. This middle school program assists students in identifying a career pathway they wish to explore in high school.

## Appendix C: Sample Career Development and Implementation Activities for the 9-11 Grade Span

<b>Table 3</b> <b>Sample Career Development and Implementation Activities Aligned to the CEW Standards – Grade Span: 9-11</b>		
<b>13.1.11</b> <b>Career</b> <b>Awareness</b> <b>and Preparation</b>	A. Relate careers to individual interests, abilities, and aptitudes. B. Analyze career options based on personal interests, abilities, aptitudes, achievements, and goals. C. Analyze how the changing roles of individuals in the workplace relate to new opportunities within career choices. D. Evaluate school-based opportunities for career awareness and preparation. E. Justify the selection of a career. F. Analyze the relationship between career choices and career preparation opportunities. G. Assess the implementation of the individualized career plan through the ongoing development of the career portfolio. H. Review personal high school plan against current personal career goals and select postsecondary opportunities based upon personal career interests.	
<b>Sample Instructional Activities</b> <i>The student will engage in standards-based instruction via...</i>		<b>Examples of Student Evidence</b> <i>The student will successfully complete...</i>
<b>Career Guidance Activities:</b> <ul style="list-style-type: none"> <li>● With parent/family guidance, generate a list of career options based on two or more self-assessments, personal experiences, and achievements. Identify top two choices and explain why they were selected. (A, B)</li> <li>● Interview two adults in nontraditional careers. Describe how each had to adjust to new job responsibilities based on advancement or company downsizing. (C)</li> <li>● Evaluate and describe the impact of the following on your career decisions: community service, internship, job shadowing, part time employment, school-based enterprise, industry-based career programs, dual enrollment, and industry certification programs. (D)</li> <li>● Use results of self-assessments, career development experiences, and achievements to develop a comprehensive 9-12 academic course selection plan or career pathway related to individual career goals. Evaluate and review annually with counselor, teacher, and parent input. (E)</li> <li>● Develop a list of 5-10 postsecondary training programs connected to individual career goals. Describe which options best align to your career plan and why. Revise annually. (F)</li> <li>● On an ongoing basis, evaluate the implementation of the individualized career plan. Update portfolio, determine whether timelines are met, appropriate courses and electives are selected, and workplace and other experiences are occurring in support of career goals. Revise plan with input from counselor/teacher and parents annually. (G)</li> <li>● Present career plan and portfolio in an exit interview with educators, community, and industry stakeholders. Describe all experiences related to the individual goal, career path and postsecondary training plans. (G, H)</li> </ul>		Aptitude Assessment Career-Based Graduation Project Career Interest Inventory Career Plan Career Portfolio Grades 9-12 "I" statements <sup>xxiii</sup> Interview Interview Notes Learning Style Inventory Oral Presentation Rubric PA NOCTI Career Education and Work Standards test code 8298 Performance Rubric Personality Assessment Research Report

	<p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>Complete career awareness and preparation activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C, D, E, F, G, H)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in career fairs and days, career fairs, career assemblies, career panels, and speakers. (A, B, C, D, E, F, G, H)</li> </ul> <p><b>Workplace Experiences</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in industry tours, job shadowing, mentorships, internships, cooperative education, and other workplace experiences. (A, B, C, D, E, F, G, H)</li> </ul> <p><b>Training Program Experiences</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in exposure to CTE programs, CTCs, and postsecondary institutions, which may include classroom presentations by faculty or students or on-site visits. (A, B, C, D, E, F, G, H)</li> </ul>	
<p><b>13.2.11 Career Acquisition</b></p>	<p>A. Apply effective speaking and listening skills used in a job interview.</p> <p>B. Apply research skills in searching for a job.</p> <p>C. Develop and assemble, for career portfolio placement, career acquisition documents.</p> <p>D. Analyze, revise, and apply an individualized career portfolio to chosen career path.</p> <p>E. Demonstrate, in the career acquisition process, the application of essential workplace skills/knowledge.</p>	
<p style="text-align: center;"><b>Sample Instructional Activities</b> <i>The student will engage in standards-based instruction via...</i></p>		<p style="text-align: center;"><b>Examples of Student Evidence</b> <i>The student will successfully complete...</i></p>
	<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>Participate in a mock interview. Based on the feedback provided by a teacher or business partner, describe how the interview skills you demonstrated could be improved. (A)</li> <li>After a presentation by the local Workforce Development Board, research local career opportunities using online and print resources. List those that match your career goal. Compare and contrast high school educational requirements, job outlook, salary range, and postsecondary training options. (B)</li> <li>Develop a career portfolio which includes the following career acquisition documents linked to your career plan: job application; cover letter; resume; thank you letter; postsecondary application; letter of recommendation request. (C)</li> <li>According to chosen career path and with guidance from parents, teachers, and a business mentor, revise, update, and add documents in career portfolio. (D)</li> <li>As part of an internship experience, keep an ongoing journal that analyzes the importance of essential workplace skills such as communication, scheduling, team building and use of technology. Describe how these skills support the career acquisition process. (E)</li> </ul>	<p>Oral Presentation Rubric Interview Research Report Performance Rubric Grades 9-12 "I" statements Career Plan Career-Based Graduation Project Career Portfolio Journal or Log PA NOCTI Career Education and Work Standards test code 8298</p>

<p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>Complete career acquisition activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C, D, E)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>Reflect on participation in career fairs and days, career assemblies, career panels, and speakers. (A, B, C, D, E)</li> </ul>		
<p><b>13.3.11 Career Retention and Advancement</b></p>	<ul style="list-style-type: none"> <li>A. Evaluate personal attitudes and work habits that support career retention and advancement.</li> <li>B. Evaluate team member roles to describe and illustrate active listening techniques.</li> <li>C. Evaluate conflict resolution skills as they relate to the workplace.</li> <li>D. Develop a personal budget based on career choice.</li> <li>E. Evaluate time management strategies and their application to both personal and work situations.</li> <li>F. Evaluate strategies for career retention and advancement in response to the changing global workplace.</li> <li>G. Evaluate the impact of lifelong learning on career retention and advancement.</li> </ul>	
<p><b>Sample Instructional Activities</b> <i>The student will engage in standards-based instruction via...</i></p>		<p><b>Examples of Student Evidence</b> <i>The student will successfully complete...</i></p>
<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>Following career day presentations, list 10 personal attitudes and work habits that are required for job retention and advancement. Complete a self-evaluation checklist to identify areas of skill strength and improvement. Describe how to address areas needing improvement. (A)</li> <li>Critique fellow students as they role play active listening techniques including clarifying, summarizing, encouraging, and reflecting, and restating. (B)</li> <li>While participating in a cooperative education or internship experience, note in a journal the types of conflicts that occur in the workplace. Evaluate the impact of the following conflict resolution skills: <ul style="list-style-type: none"> <li>o constructive criticism</li> <li>o mediation</li> <li>o group dynamics</li> <li>o leadership</li> <li>o negotiation (C)</li> </ul> </li> <li>Work with a financial advisor to develop a personal budget based on a career choice. Include items such as gross pay, net pay, other income sources, charitable contributions, taxes, and other fixed/variable expenses. (D)</li> <li>Self-assess time management strategies. Describe steps needed to improve areas of weakness and how those improvements can lead to successful personal and work situations. (E)</li> </ul>	<ul style="list-style-type: none"> <li>Budget of Finance Plan</li> <li>Career Plan</li> <li>Career Portfolio</li> <li>Grades 9-12 "I" statements</li> <li>Journal or Log</li> <li>Oral Presentation Rubric</li> <li>PA NOCTI Career Education and Work Standards test code 8298</li> <li>Performance Rubric</li> <li>Research Report</li> <li>Timeline or Work Plan</li> </ul>	

<ul style="list-style-type: none"> <li>• Create a 10-year timeline for a future career. With the support of a local business executive, evaluate strategies for career retention and advancement in response to the changing global workplace. (F)</li> <li>• Interview three professionals at different points in their careers. Evaluate how lifelong learning decisions impacted career retention and advancement opportunities for each professional. (G)</li> </ul> <p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>• Complete career retention activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C, D, E, F, G)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>• Reflect on participation in career fairs and days, career assemblies, career panels, and speakers. (A, B, C, D, E, F, G)</li> </ul>		
<p><b>13.4.11 Entrepreneurship</b></p>	<p>A. Analyze entrepreneurship as it relates to personal career goals and corporate opportunities.  B. Analyze entrepreneurship as it relates to personal character traits.  C. Develop a business plan for an entrepreneurial concept of personal interest and identify available resources.</p>	
<p><b>Sample Instructional Activities</b>  <i>The student will engage in standards-based instruction via...</i></p>		<p><b>Examples of Student Evidence</b>  <i>The student will successfully complete...</i></p>
<p><b>Career Guidance Activities</b></p> <ul style="list-style-type: none"> <li>• Interview two corporate employees and two business owners. Compare the advantages and disadvantages of each type of employment. Provide rationale as to which approach is best aligned to your career interest. (A)</li> <li>• Research and present the personal character traits important for successful entrepreneurship. (B)</li> <li>• Develop a business plan for an entrepreneurial concept of personal interest, including a budget and marketing strategy. Compare this business plan to available personal resources such as interests, skills, and goals to ensure they are aligned. (C)</li> </ul> <p><b>Curriculum Integration</b></p> <ul style="list-style-type: none"> <li>• Complete entrepreneurship activities integrated into Language Arts, Math, Science, Social Studies, and Related Arts. (A, B, C)</li> </ul> <p><b>Building and Community-Based Career Events</b></p> <ul style="list-style-type: none"> <li>• Reflect on participation in career fairs and days, career assemblies, career panels, and speakers. (A, B, C)</li> </ul>	<p>Budget or Financial Plan  Business Plan  Career Plan  Career Portfolio  Grades 9-12 "I" Statements  Journal or Log  PA NOCTI Career Education and Work Standards test code 8298  Performance Rubric  Research Report</p>	

**Career Pathways in Action in PA: Graduating High School with a Diploma and Associate's Degree**

Pennsylvania Highlands Community College "Associate in High School Program" allows students at partner school districts to simultaneously earn a high school diploma and an associate's degree while attending high school. Through the college's Accelerated College Education program, students enroll in up to 29 dual enrollment credits at their high schools at reduced tuition rate, and complete an additional 31 credits either online or at the college campus at full tuition. In 2016-17, a total of 23 students from six rural school districts in Pennsylvania (Clearfield Area, Blacklick Valley, Greater Johnstown, Mount Union, Penn Manor, and United) graduated from the program. Beginning in 2017-18, students at Tyrone and Southern Huntingdon school districts will also be able to participate in the program. The "Associate in the High School Program" accelerates postsecondary degree completion, allows students to enter the workforce sooner, and provides significant cost savings to students and their families.

**Helping CTE Students be College and Career Ready: Pennsylvania College of Technology, Lycoming CTC & East Lycoming School District**

To help ensure that students enrolled in CTE programs are ready to pursue the postsecondary education necessary to advance their careers, PDE supported efforts by the Pennsylvania College of Technology, in partnership with Lycoming CTC and East Lycoming School District, to create postsecondary advising and college-level course-taking opportunities for CTE students with the goal of reducing the need for remediation. Through this pilot program, 32 Hughesville High School students who are enrolled at Lycoming CTC took a placement exam to identify their readiness for college-level coursework. Staff and faculty from the high school met with counterparts at the Pennsylvania College of Technology to update and revise curriculum. During the 2017-18 school year, CTE students will take the revised college-level algebra course and can earn up to six college credits if they score well on the placement exam.

## Appendix D: Resources for Career Education and Work Standards

**Table 4: Resources for Career Education and Work Standards**

<b>Pennsylvania Department of Education:</b> Sample resources, curriculum and assessments and information on community partnerships	<a href="http://www.education.pa.gov/K-12/PACareerStandards/">www.education.pa.gov/K-12/PACareerStandards/</a>
<b>Pennsylvania Standards Aligned System:</b> Voluntary model curriculum, printable materials, on-line resources, and sample assessments	<a href="https://www.pdesas.org/">https://www.pdesas.org/</a>
<b>PA CareerZone:</b> Interest assessments, college and career information, activities in career readiness and personal finance	<a href="http://www.pacareerzone.org">http://www.pacareerzone.org</a>
<b>Pennsylvania Higher Education Assistance Agency:</b> CEW lesson plans and school counselor resources	<a href="http://www.pheaa.org/partner-access/k12-counselors/pheaa-resources.shtml">www.pheaa.org/partner-access/k12-counselors/pheaa-resources.shtml</a>
<b>Pennsylvania Department of Education:</b> Resources for teachers, community partners, and parents including educator in the workplace, job shadowing, and internships	<a href="http://www.education.pa.gov/K-12/PACareerStandards/Partners/Pages/default.aspx#tab-1">http://www.education.pa.gov/K-12/PACareerStandards/Partners/Pages/default.aspx#tab-1</a>
<b>Pennsylvania Department of Education:</b> Educator resources, toolkits, best practices, and grant opportunities from the Bureau of Career and Technical Education	<a href="http://www.education.pa.gov/K-12/Career%20and%20Technical%20Education/Pages/default.aspx#tab-1">http://www.education.pa.gov/K-12/Career%20and%20Technical%20Education/Pages/default.aspx#tab-1</a>
<b>Pennsylvania Department of Education:</b> Resources and curriculum for financial literacy	<a href="http://www.education.pa.gov/Teachers%20-%20Administrators/Curriculum/Pages/Economic-Education---Financial-Literacy.aspx#tab-1">http://www.education.pa.gov/Teachers%20-%20Administrators/Curriculum/Pages/Economic-Education---Financial-Literacy.aspx#tab-1</a>
<b>Pennsylvania Center for Workforce Information and Analysis:</b> Pennsylvania information, media presentations, and products	<a href="http://www.workstats.dli.pa.gov">www.workstats.dli.pa.gov</a>
<b>Pennsylvania College of Technology:</b> Resources for High School-to-College Transition and for Career and Work Standards-Based Education	<a href="http://gettingthemthere.com/">http://gettingthemthere.com/</a>
<b>PA Commonwealth Workforce Development System:</b> Local job postings, resume builders, and community partnership opportunities	<a href="http://www.cwds.state.pa.us">www.cwds.state.pa.us</a>
<b>U.S. Bureau of Labor Statistics:</b> Games, quizzes, and research activities	<a href="http://www.bls.gov/k12/">www.bls.gov/k12/</a>
<b>U.S. Department of Education:</b> Libraries and archives search engine	<a href="http://www.kids.gov/k_careers.htm">www.kids.gov/k_careers.htm</a>
<b>U.S. Department of Labor:</b> Explore career and training options locally or nationwide	<a href="http://www.careeronestop.org">www.careeronestop.org</a>

**U.S. Bureau of Labor Statistics:** Occupational Outlook and Income Data, teacher's guides, FAQs, and glossaries [www.bls.gov/ooh/](http://www.bls.gov/ooh/)

**U.S. Department of Education Office of Federal Student Aid:** Federal Student Financial Aid Information and Resources [www.fafsa.gov](http://www.fafsa.gov)

<sup>1</sup> [2017-2018 Pennsylvania Information Management System User Manual Volume 1 v.1.0](#)

<sup>2</sup> A.P. Carnevale, N. Smith, and J. Strohl, *Recovery: Job Growth and Education Requirements Through 2020*, Georgetown University, Center on Education and the Workforce, June 2013.

<sup>3</sup> A.P. Carnevale, N. Smith, and J. Strohl, *Recovery: Job Growth and Education Requirements Through 2020*, Georgetown University, Center on Education and the Workforce, June 2013.

<sup>4</sup> [Educational Attainment for Pennsylvanians 18 years and over by county, sex and age](#), U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates.

<sup>5</sup> A.P. Carnevale, N. Smith, and J. Strohl, *Recovery: Job Growth and Education Requirements Through 2020*, Georgetown University, Center on Education and the Workforce, June 2013.

<sup>6</sup> The Pennsylvania Career Education and Work Standards identify what students should know and be able to do at grades 3, 5, 8, and 11 in four specific areas: career awareness and preparation; career acquisition (getting a job); career retention and advancement; and entrepreneurship. In addition, Pennsylvania regulation (Chapter 339) requires school districts to develop and implement career/occupational exploration plans for students in grades K-12 that are aligned with the state's Career Education and Work Standards.

<sup>7</sup> [http://www.stateboard.education.pa.gov/Regulations/AcademicStandards/Pages/default.aspx#.VfnY0FTD\\_Vg](http://www.stateboard.education.pa.gov/Regulations/AcademicStandards/Pages/default.aspx#.VfnY0FTD_Vg)

<sup>8</sup> [http://www.stateboard.education.pa.gov/Regulations/AcademicStandards/Pages/default.aspx#.VfnY0FTD\\_Vg](http://www.stateboard.education.pa.gov/Regulations/AcademicStandards/Pages/default.aspx#.VfnY0FTD_Vg)

<sup>9</sup> <http://www.education.pa.gov/K-12/PACareerStandards/Pages/default.aspx#tab-1>

<sup>10</sup> 22 Pa. Code § 4.12(5)

<sup>11</sup> [22 Pa. Code Chapter 4 Academic Standards for Career Education and Work](#)

<sup>12</sup> [22 Pa. Code Chapter 4 Academic Standards for Career Education and Work](#)

<sup>13</sup> <http://www.education.pa.gov/K-12/Career%20and%20Technical%20Education/Pages/Career-Ready.aspx#tab-1>

<sup>14</sup> 24 P.S. § 4.3 Definitions or 22 Pa. Code § 339.1 (relating to definitions)

<sup>15</sup> 22 Pa. Code § 339.31

<sup>16</sup> [http://www.stateboard.education.pa.gov/Regulations/AcademicStandards/Pages/default.aspx#.VfnY0FTD\\_Vg](http://www.stateboard.education.pa.gov/Regulations/AcademicStandards/Pages/default.aspx#.VfnY0FTD_Vg)

<sup>17</sup> [http://www.stateboard.education.pa.gov/Regulations/AcademicStandards/Pages/default.aspx#.VfnY0FTD\\_Vg](http://www.stateboard.education.pa.gov/Regulations/AcademicStandards/Pages/default.aspx#.VfnY0FTD_Vg)

<sup>18</sup> 24 P.S. § 4.3 Definitions or 22 Pa. Code § 339.1 (relating to definitions)

<sup>19</sup> [2017-2018 Pennsylvania Information Management System User Manual Volume 1 v.1.0](#)

<sup>20</sup> <http://www.education.pa.gov/teachers%20-%20administrators/pims/pages/default.aspx#tab-1>

<sup>xxi</sup> <http://www.education.pa.gov/K-12/PACareerStandards/Assessment/Pages/default.aspx#tab-1>

<sup>xxii</sup> <http://www.education.pa.gov/K-12/PACareerStandards/Assessment/Pages/default.aspx#tab-1>

<sup>xxiii</sup> <http://www.education.pa.gov/K-12/PACareerStandards/Assessment/Pages/default.aspx#tab-1>