



**Plumbing Technology/Plumber, Classification of Instructional Program (CIP) 46.0503  
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
<b>100. DEMONSTRATE PERSONAL SAFETY IN THE TRAINING LABORATORY.</b>				
101 Demonstrate how to follow rules for fire safety. 102 Demonstrate how to follow rules for housekeeping safety. 103 Demonstrate how to follow shop rules. 104 Demonstrate how to follow rules for material handling safety. 105 Demonstrate how to follow rules for eye protection. 106 Demonstrate how to follow rules for hearing protection. 107 Demonstrate how to follow rules for respiratory protection. 108 Demonstrate how to follow rules for hand tool safety. 109 Demonstrate how to follow rules for power equipment safety. 110 Demonstrate how to follow rules for portable electric hand tool safety. 111 Demonstrate how to follow rules for M.S.D.S. Safety. 112 Demonstrate how to follow safety rules as they relate to E.C.P. (Exposure Control Procedures: blood borne pathogens, etc.). 113 Demonstrate how to follow OSHA (Occupational Safety Health Act) regulations.	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp;</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the</p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b></p>	<p><b>NUMBERS AND OPERATIONS</b> <b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

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		<p>relationships among concepts in a text. etc.  <b>Standard CC.3.5.9-10.F</b>            Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE            GRADES 11-12</b>  <b>Standard CC.3.5.11-12.D.</b>            Determine the meaning of symbols, key terms, and other domain specific words...  <b>Standard CC.3.5.11-12.E.</b>            Analyze the structure of the relationships among concepts in a text.  <b>Standard CC.3.5.11-12.F</b>            Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/            IDEAS            GRADES 9-10</b>  <b>Standard CC.3.5.9-10.G.</b>            Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).  <b>Standard CC.3.5.9-10.H.</b>            Assess the reasoning in a text to support the author’s claim for solving a technical problem.  <b>Standard CC.3.5.9-10.I.</b>            Compare and contrast findings presented in a text to those from other sources, etc...</p>	<p>Use technology, including the internet, to produce, publish, and update individual or shared writing products.</p> <p><b>PRODUCTION &amp;            DISTRIBUTION OF            WRITING            GRADES 11-12</b>  <b>Standard CC.3.6...11-12 C</b>            Produce clear and coherent writing...appropriate to task, purpose, and audience.  <b>Standard CC.3.6.9-10 D</b>  <b>Standard CC.3.6.11-12.D.</b>            Develop and strengthen writing as needed.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH            GRADES 9-10</b>  <b>Standard CC.3.6.9-10.F.</b>            Conduct short and more sustained research.  <b>Standard CC.3.6.9-10.G.</b>            Gather relevant information.  <b>Standard CC.3.6.9-10.H.</b>            Draw evidence from informational texts.</p> <p><b>RESEARCH            GRADES 11-12</b>  <b>Standard CC.3.6.11-12.F.</b></p>	

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		<p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p>Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12 Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<p><b>200. DEMONSTRATE JOB SITE SAFETY PRACTICES.</b></p>				
<p>201 Discuss provisions, inspections and citations of OSHA. 202 Demonstrate compliance to EPA (Environmental Protection Agency) regulations for handling refrigerants. 203 Demonstrate knowledge of EPA job site requirements NARI (National Association of Remodeling Industry).</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i></p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE</b></p>	

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	<p>Choose Standards from: 1-2-3-4-5-6-7- 8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</b> <b>GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE</b> <b>GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc. <b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE</b> <b>GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p>	<p><b>GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b> <b>GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to produce, publish, and update individual or shared writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b> <b>GRADES 11-12</b> <b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p>	

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		<p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10 Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). <b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p>	<p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10 Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.9-10.G.</b> Gather relevant information. <b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12 Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12 Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes</p>	

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<b>300. READ BLUEPRINTS AND SKETCHING OF PIPE SYSTEMS.</b>	<b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7  <b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9  <i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6	<b>KEY IDEAS/DETAILS GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...  <b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...  <b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b>	<b>TEXT TYPES AND PURPOSE GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.  <b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.  <b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.	<b>NUMBERS AND OPERATIONS</b> <b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.  <b>ALGEBRA</b> <b>Standard. 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.

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		<p>Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author's purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b></p> <p><b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author's purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b></p> <p><b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p> <p><b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author's claim for</p>	<p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to produce, publish, and update individual or shared writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b></p> <p><b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b></p> <p><b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.9-10.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p>	<p><b>Standard. 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems.</p> <p><b>Standard. 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard. 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>Standard CC.2.4.HS.B.5</b> Make inferences and justify conclusions based on sample surveys, experiments, and observational studies.</p> <p><b>Standard CC.2.2.HS.D.3</b> Extend the knowledge of arithmetic operations and apply to polynomials.</p> <p><b>Standard CC.2.2.HS.D.8</b> Apply inverse operations to solve equations or formulas for a given variable.</p> <p><b>Standard CC.2.2.HS.D.9</b> Use reasoning to solve equations and justify the solution method.</p> <p><b>Standard CC.2.1.HS.F.3</b> Apply quantitative reasoning to choose and Interpret units and scales in formulas, graphs and data displays.</p> <p><b>GEOMETRY</b></p> <p><b>Standard CC.2.3.HS.A.1</b> Use geometric figures and their</p>

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		<p>solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b> <b>GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING</b> <b>GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p><b>RESEARCH</b> <b>GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING</b> <b>GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	<p>properties to represent transformations in the plane. <b>Standard CC.2.3.HS.A.2</b> Apply rigid transformations to determine and explain congruence. <b>Standard C.2.3.HS.A.3</b> Verify and apply geometric theorems as they relate to geometric figures. <b>Standard CC.2.3.HS.A.4</b> Apply the concept of congruence to create geometric constructions. <b>Standard CC.2.3.HS.A.5</b> Create justifications based on transformations to establish similarity of plane figures. <b>Standard CC.2.3.HS.A.6</b> Verify and apply theorems involving similarity as they relate to plane figures. <b>Standard CC.2.3.HS.A.7</b> Apply trigonometric ratios to solve problems involving right triangles. <b>Standard CC.2.3.HS.A.8</b> Apply geometric theorems to verify properties of circles. <b>Standard CC.2.3.HS.A.9</b> Extend the concept of similarity to determine arc lengths and areas of sectors of circles. <b>Standard CC.2.3.HS.A.10</b> Translate between the geometric description and the equation for a conic section. <b>Standard CC.2.3.HS.A.11</b></p>

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				<p>Apply coordinate geometry to prove simple geometric theorems algebraically. <b>Standard CC.2.3.HS.A.12</b> Explain volume formulas and use them to solve problems. <b>Standard CC.2.3.HS.A.13</b> Analyze relationships between two dimensional and three dimensional objects. <b>Standard CC.2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>
<p><b>400. DEMONSTRATE KNOWLEDGE OF PIPE SPECIFICATIONS AND SYSTEMS.</b></p>				
<p>401 Identify pipe and connections according to specification. 402 Demonstrate knowledge of plumbing standards, codes and specifications. 403 Read and interpret plumbing specifications. 404 Identifying piping systems and other color codes. 405 Explain the effects and corrective measures for thermal expansion in piping systems. 406 Explain types and applications of pipe insulation. 407 Identify various metals and specification process used in the plumbing and heating industry.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9 <i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b></p>	<p><b>NUMBERS AND OPERATIONS</b> <b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRY</b></p>

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		<p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b> <b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical</p>	<p><b>GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to produce, publish, and update individual or shared writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b> <b>Standard CC.3.6.11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b></p>	<p><b>Standard CC.2.3.HS.A.1</b> Use geometric figures and their properties to represent transformations in the plane.</p> <p><b>Standard CC.2.3.HS.A.2</b> Apply rigid transformations to determine and explain congruence.</p> <p><b>Standard C.2.3.HS.A.3</b> Verify and apply geometric theorems as they relate to geometric figures.</p> <p><b>Standard CC.2.3.HS.A.4</b> Apply the concept of congruence to create geometric constructions.</p> <p><b>Standard CC.2.3.HS.A.5</b> Create justifications based on transformations to establish similarity of plane figures.</p> <p><b>Standard CC.2.3.HS.A.6</b> Verify and apply theorems involving similarity as they relate to plane figures.</p> <p><b>Standard CC.2.3.HS.A.7</b> Apply trigonometric ratios to solve problems involving right triangles.</p> <p><b>Standard CC.2.3.HS.A.8</b> Apply geometric theorems to verify properties of circles.</p> <p><b>Standard CC.2.3.HS.A.9</b> Extend the concept of similarity to determine arc lengths and areas of sectors of circles.</p> <p><b>Standard CC.2.3.HS.A.10</b> Translate between the geometric</p>

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		<p>information expressed in a text into visual form (e.g. a table or chart).  <b>Standard CC.3.5.9-10.H.</b>            Assess the reasoning in a text to support the author’s claim for solving a technical problem.  <b>Standard CC.3.5.9-10.I.</b>            Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.5.11-12.G.</b>            Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.  <b>Standard CC.3.5.11-12.H.</b>            Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.  <b>Standard CC.3.5.11-12.I.</b>            Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING</b>  <b>GRADES 9-10-11-12</b>  <b>Standard CC.3.5.9-10.J AND</b>  <b>Standard CC.3.5.11-12.J.</b>            By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p><b>Standard CC.3.6.11-12.D.</b>            Develop and strengthen writing as needed.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH</b>  <b>GRADES 9-10</b>  <b>Standard CC.3.6.9-10.F.</b>            Conduct short and more sustained research.  <b>Standard CC.3.6.9-10.G.</b>            Gather relevant information.  <b>Standard CC.3.6.9-10.H.</b>            Draw evidence from informational texts.</p> <p><b>RESEARCH</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.6.11-12.F.</b>            Conduct short and more sustained research.  <b>Standard CC.3.6.11-12.G.</b>            Gather relevant information.  <b>Standard CC.3.6.11-12.H.</b>            Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING</b>  <b>GRADES 9-10-11-12</b>  <b>Standard CC.3.5.9-10.I</b></p>	<p>description and the equation for a conic section.  <b>Standard CC.2.3.HS.A.11</b>            Apply coordinate geometry to prove simple geometric theorems algebraically.  <b>Standard CC.2.3.HS.A.12</b>            Explain volume formulas and use them to solve problems.  <b>Standard CC.2.3.HS.A.13</b>            Analyze relationships between two dimensional and three dimensional objects.  <b>Standard CC.2.3.HS.A.14</b>            Apply geometric concepts to model and solve real world problems.</p>

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			<i>and</i> Standard CC.3.5.11-12.I. Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.	
<b>500. DEMONSTRATE USE OF HAND AND POWER TOOLS.</b>				
<p>501. Identify basic hand tools, state their uses, and use them in the trade.</p> <p>502. Identify power tools, safety and use, and maintenance.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific</p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen</p>	<p><b>NUMBERS AND OPERATIONS</b> <b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems.</p> <p><b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

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		<p>words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b></p> <p><b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b></p> <p><b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p> <p><b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem.</p>	<p>writing as needed.</p> <p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to produce, publish, and update individual or shared writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b></p> <p><b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b></p> <p><b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.9-10.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p>	

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		<p><b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.</p> <p><b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.</p> <p><b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p><b>RESEARCH GRADES 11-12 Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.11-12.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12 Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<p><b>600. IDENTIFY AND INSTALL VALVES.</b></p>				
<p>601 Identify usage and installation of backflow prevention devices. 602 Identify and install types of valves that start and stop flow. 603 Identify and install types of valves that regulate flow. 604 Identify valves that relieve pressure.</p>	<p><b>CLUSTER: <i>Architecture and Construction</i></b> Choose Cluster Standards from: 1-2-3-4-5-6-7</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp;</b> Determine the central ideas or</p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including</p>	

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<p>605 Explain the factors that influence valve selection.</p> <p>606 Disassemble and assemble various types of valves (such as gate valve, globe valve, and flush valve).</p>	<p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p>conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc. <b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific</p>	<p>the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to produce, publish, and update individual or shared writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b> <b>Standard CC.3.6...11-12 C</b> Produce clear and coherent</p>	

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		<p>words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b> <b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). <b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a</p>	<p>writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b> <b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.9-10.G.</b> Gather relevant information. <b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p>	

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		<p>technical text, verifying the data when possible.  <b>Standard CC.3.5.11-12.I.</b>            Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING            GRADES 9-10-11-12            Standard CC.3.5.9-10.J AND            Standard CC.3.5.11-12.J.</b>            By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p><b>RANGE OF WRITING            GRADES 9-10-11-12            Standard CC.3.5.9-10.I            and Standard CC.3.5.11-12.I.</b>            Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<p><b>700. DEMONSTRATE SKILL IN WORKING WITH COPPER PIPE.</b></p>				
<p>701 Demonstrate skills in joining, cutting and bending various types of copper pipe tubing: solder, compression, flare, swage, press fit.            702 Demonstrate skills in compression flaring, swaging and press fitting copper pipe.            703 Prepare and braze a joint.            704 Perform tests on soldered and brazed joints according to plumbing code.</p>	<p><b>CLUSTER:</b>  <i>Architecture and Construction</i>            Choose Cluster Standards from:            1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b>  <i>Construction Careers</i></p>	<p><b>KEY IDEAS/DETAILS            GRADES 9-10            Standard CC.3.5.9-10.A.</b>            Cite specific textual evidence, etc....  <b>Standard CC.3.5.9-10B &amp;            Standard CC.3.5.9-10.C</b>            Determine the central ideas or conclusions of a text; etc...            Follow precisely a complex multistep procedure, etc...</p>	<p><b>TEXT TYPES AND PURPOSE            GRADES 9-10            Standard CC.3.6.9-10.B</b>            Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND</b></p>	

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	<p>Choose Standards from: 1-2-3-4-5-6-7- 8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc. <b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a</p>	<p><b>PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to produce, publish, and update individual or shared writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b> <b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task,</p>	

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		<p>text. <b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b> <b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). <b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range</p>	<p>purpose, and audience. <b>Standard CC.3.6.9-10 D</b> <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b> <b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.9-10.G.</b> Gather relevant information. <b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING</b></p>	

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		<p>of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p><b>GRADES 9-10-11-12 Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<p><b>800. DEMONSTRATE SKILL IN VARIOUS TYPES OF PLASTIC PIPE AND TUBING.</b></p>				
<p>801 Measure, cut and assemble PVC, CPVC, and ABS. 802 Measure, cut and assemble PEX plastic tubing and PE and HDPE. 803 Fabricate a crimp joint connection. 804 Fabricate a tubing type joint.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE</b></p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12 Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10 Standard CC.3.6.9-10.C</b> Produce clear and coherent</p>	<p><b>NUMBERS AND OPERATIONS Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

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Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p><b>GRADES 9-10</b>  <b>Standard CC.3.5.9-10.D.</b>            Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b>            Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b>            Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.5.11-12.D.</b>            Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b>            Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b>            Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b>  <b>GRADES 9-10</b>  <b>Standard CC.3.5.9-10.G.</b>            Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p>	<p>writing...appropriate to task, purpose, and audience.  <b>Standard CC.3.6.9-10 D</b>            Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.9-10.E</b>            Use technology, including the internet, to produce, publish, and update individual or shared writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.6...11-12 C</b>            Produce clear and coherent writing...appropriate to task, purpose, and audience.  <b>Standard CC.3.6.9-10 D</b>  <b>Standard CC.3.6.11-12.D.</b>            Develop and strengthen writing as needed.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH</b>  <b>GRADES 9-10</b>  <b>Standard CC.3.6.9-10.F.</b>            Conduct short and more sustained research.  <b>Standard CC.3.6.9-10.G.</b>            Gather relevant</p>	

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Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p><b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem.</p> <p><b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.</p> <p><b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.</p> <p><b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p>information.</p> <p><b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.11-12.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<b>900. INSTALL PIPE HANGERS AND SUPPORT.</b>				
901 Use hangers to secure horizontal and vertical pipe lines to	<b>CLUSTER:</b> <i>Architecture and</i>	<b>KEY IDEAS/DETAILS GRADES 9-10</b>	<b>TEXT TYPES AND PURPOSE</b>	<b>NUMBERS AND OPERATIONS</b>

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<p>masonry, metal and wood. 902 Layout, anchor, and install various carrier fixtures.</p>	<p><b>Construction</b> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <b>Construction</b> <b>Careers</b> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><b>Maintenance Operations</b> Choose standards from 1-2-3-4-5-6</p>	<p><b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.9-10B &amp;</b> Determine the central ideas or conclusions of a text; etc...</p> <p><b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc...</p> <p><b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE</b></p>	<p><b>GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.</p> <p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to produce, publish, and update</p>	<p><b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems.</p> <p><b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

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Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p><b>GRADES 11-12</b>  <b>Standard CC.3.5.11-12.D.</b>            Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b>            Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b>            Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b>  <b>GRADES 9-10</b>  <b>Standard CC.3.5.9-10.G.</b>            Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p> <p><b>Standard CC.3.5.9-10.H.</b>            Assess the reasoning in a text to support the author’s claim for solving a technical problem.</p> <p><b>Standard CC.3.5.9-10.I.</b>            Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.5.11-12.G.</b>            Integrate and evaluate multiple sources of information presented in</p>	<p>individual or shared writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.6.11-12 C</b>            Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b>  <b>Standard CC.3.6.11-12.D.</b>            Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.</p> <p><b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to produce, publish, and update individual or shared writing products.</p> <p><b>RANGE OF WRITING</b>  <b>GRADES 9-10-11-12</b>  <b>Standard CC.3.5.9-10.I</b>  <b>AND Standard CC.3.5.11-12.I.</b>            Write routinely over extended time frames and shorter time frames for a</p>	

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Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.  <b>RANGE OF READING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.	range of tasks, purposes and audiences...etc.	
<b>1000. INSTALL WATER DISTRIBUTION LINES.</b>				
1001 Perform tests on water distribution lines that meet plumbing code. 1002 Rough in water supply lines for bath tubs, wall mounted urinals, water closets, clothes washer, kitchen sink, and lavatories according to manufacturer sheet. 1003 Demonstrate knowledge of a water distribution whirlpool tub installation.	<b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7  <b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9  <i>Maintenance</i>	<b>KEY IDEAS/DETAILS GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp;</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...  <b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc....	<b>TEXT TYPES AND PURPOSE GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.  <b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical	<b>NUMBERS AND OPERATIONS Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

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Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
	<p><i>Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc...</p> <p><b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p>	<p>processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING RADES 11-12</b> <b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH</b></p>	<p><b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRY</b> <b>Standard CC.2.3.HS.A.1</b> Use geometric figures and their properties to represent transformations in the plane. <b>Standard CC.2.3.HS.A.2</b> Apply rigid transformations to determine and explain congruence. <b>Standard C.2.3.HS.A.3</b> Verify and apply geometric theorems as they relate to geometric figures. <b>Standard CC.2.3.HS.A.4</b> Apply the concept of congruence to create geometric constructions. <b>Standard CC.2.3.HS.A.5</b> Create justifications based on transformations to establish similarity of plane figures. <b>Standard CC.2.3.HS.A.6</b> Verify and apply theorems involving similarity as they relate to plane figures. <b>Standard CC.2.3.HS.A.7</b> Apply trigonometric ratios to solve problems involving right triangles. <b>Standard CC.2.3.HS.A.8</b> Apply geometric theorems to</p>

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		<p><b>INTEGRATE KNOWLEDGE/ IDEAS</b> <b>GRADES 9-10</b> <b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). <b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b> <b>GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING</b> <b>GRADES 9-10-11-12</b></p>	<p><b>GRADES 9-10</b> <b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.9-10.G.</b> Gather relevant information. <b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH</b> <b>GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING</b> <b>GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	<p>verify properties of circles. <b>Standard CC.2.3.HS.A.9</b> Extend the concept of similarity to determine arc lengths and areas of sectors of circles. <b>Standard CC.2.3.HS.A.10</b> Translate between the geometric description and the equation for a conic section. <b>Standard CC.2.3.HS.A.11</b> Apply coordinate geometry to prove simple geometric theorems algebraically. <b>Standard CC.2.3.HS.A.12</b> Explain volume formulas and use them to solve problems. <b>Standard CC.2.3.HS.A.13</b> Analyze relationships between two dimensional and three dimensional objects. <b>Standard CC.2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>

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		<b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.		
<b>1100. DEMONSTRATE SKILL IN WORKING WITH STEEL PIPE.</b>				
1101 Thread steel pipe with an adjustable die, power threading machine, and nonadjustable die. 1102 Measure, cut, ream, assemble, and test various types of steel piping. 1103 Adapt steel pipe to other piping materials.	<b>CLUSTER: Architecture and Construction</b> Choose Cluster Standards from: 1-2-3-4-5-6-7  <b>2 PATHWAYS: Construction Careers</b> Choose Standards from: 1-2-3-4-5-6-7-8-9  <b>Maintenance Operations</b> Choose standards from 1-2-3-4-5-6	<b>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...  <b>KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...  <b>CRAFT &amp; STRUCTURE GRADES 9-10 Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...	<b>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.  <b>TEXT TYPES AND PURPOSE GRADES 11-12 Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.  <b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10 Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.	<b>NUMBERS AND OPERATIONS Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.  <b>GEOMETRY Standard CC.2.3.HS.A.1</b> Use geometric figures and their properties to represent transformations in the plane. <b>Standard CC.2.3.HS.A.14</b> Apply geometric concepts to model and solve real world

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Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b></p> <p><b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b></p> <p><b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p> <p><b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem.</p> <p><b>Standard CC.3.5.9-10.I.</b></p>	<p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b></p> <p><b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b></p> <p><b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b></p> <p><b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.9-10.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b></p>	<p>problems.</p>

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Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p><b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12 Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<p><b>1200. DEMONSTRATE SKILL IN WORKING WITH CAST IRON PIPE.</b></p>				
<p>1201 Identify and use tools for working with cast iron pipe. 1202 Measure and cut cast iron soil pipe with a chain cutter. 1203 Assemble cast iron to various pipe types with no hub, Fernco, or rubber gasket joints.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp;</b> Determine the central ideas or</p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including</p>	<p><b>NUMBERS AND OPERATIONS Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p>

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	<p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p>conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc. <b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific</p>	<p>the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b> <b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p>	<p><b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems.</p> <p><b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRY</b> <b>Standard CC.2.3.HS.A.1</b> Use geometric figures and their properties to represent transformations in the plane. <b>Standard CC.2.3.HS.A.12</b> Explain volume formulas and use them to solve problems. <b>Standard CC.2.3.HS.A.13</b> Analyze relationships between two dimensional and three dimensional objects. <b>Standard CC.2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>

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		<p>words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b> <b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). <b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a</p>	<p><b>Standard CC.3.6.9-10 D</b> <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b> <b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.9-10.G.</b> Gather relevant information. <b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12</b></p>	

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		technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.  <b>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.	<b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.	
<b>1300. DEMONSTRATE KNOWLEDGE OF A BUILDER LEVELER.</b>				
1301 Identify and set up a builder's level. 1302 Set up the level shoot elevations and grade pipe.	<b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7  <b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9  <i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6	<b>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...  <b>KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b>	<b>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.  <b>TEXT TYPES AND PURPOSE GRADES 11-12 Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.  <b>PRODUCTION &amp; DISTRIBUTION OF</b>	<b>NUMBERS AND OPERATIONS Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.

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		<p>Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10 Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12 Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b></p>	<p><b>WRITING GRADES 9-10 Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12 Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10 Standard CC.3.6.9-10.F.</b></p>	<p><b>GEOMETRY Standard CC.2.3.HS.A.1</b> Use geometric figures and their properties to represent transformations in the plane.</p> <p><b>Standard CC.2.3.HS.A.12</b> Explain volume formulas and use them to solve problems.</p> <p><b>Standard CC.2.3.HS.A.13</b> Analyze relationships between two dimensional and three dimensional objects.</p> <p><b>Standard CC.2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>

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		<p><b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p> <p><b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem.</p> <p><b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.</p> <p><b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.</p> <p><b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical</p>	<p>Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.9-10.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.11-12.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	

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1400. BUILD DRAINS AND SEWERS.		texts independently and proficiently.		
<p>1401 Lay out and establish grade/slope for drain lines. 1402 Install backwater prevention valves. 1403 Test a drain and sewer according to plumbing code. 1404 Install air admittance valves. 1405 Rough in waste lines and vents for bathtubs, lavatories, dishwashers, water closets, showers, bidets and urinals according to manufacturers' specifications.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc. <b>Standard CC.3.5.9-10.F</b></p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p>	<p><b>NUMBERS AND OPERATIONS</b> <b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRY</b> <b>Standard CC.2.3.HS.A.1</b> Use geometric figures and their properties to represent transformations in the plane. <b>Standard CC.2.3.HS.A.2</b> Apply rigid transformations to determine and explain congruence. <b>Standard C.2.3.HS.A.3</b> Verify and apply geometric theorems as they relate to geometric figures.</p>

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		<p>Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text. <b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b> <b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). <b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/</b></p>	<p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b> <b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b> <b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.9-10.G.</b> Gather relevant information. <b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research.</p>	<p><b>Standard CC.2.3.HS.A.4</b> Apply the concept of congruence to create geometric constructions.</p> <p><b>Standard CC.2.3.HS.A.5</b> Create justifications based on transformations to establish similarity of plane figures.</p> <p><b>Standard CC.2.3.HS.A.6</b> Verify and apply theorems involving similarity as they relate to plane figures.</p> <p><b>Standard CC.2.3.HS.A.7</b> Apply trigonometric ratios to solve problems involving right triangles.</p> <p><b>Standard CC.2.3.HS.A.8</b> Apply geometric theorems to verify properties of circles.</p> <p><b>Standard CC.2.3.HS.A.9</b> Extend the concept of similarity to determine arc lengths and areas of sectors of circles.</p> <p><b>Standard CC.2.3.HS.A.10</b> Translate between the geometric description and the equation for a conic section.</p> <p><b>Standard CC.2.3.HS.A.11</b> Apply coordinate geometry to prove simple geometric theorems algebraically.</p> <p><b>Standard CC.2.3.HS.A.12</b> Explain volume formulas and use them to solve problems.</p> <p><b>Standard CC.2.3.HS.A.13</b> Analyze relationships between two dimensional and three</p>

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Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p><b>IDEAS</b> <b>GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING</b> <b>GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p><b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING</b> <b>GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	<p>dimensional objects. <b>Standard CC.2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>
<p><b>1500. INSTALL FIXTURES.</b></p>				
<p>1501 Install tank type water closets. 1502 Install bathtubs. 1503 Install wall mounted lavatories. 1504 Install wall mounted urinals. 1505 Install kitchen sink. 1506 Install prefabricated shower base drains. 1507 Install built in lavatories. 1508 Install flush valve type water closets. 1509 Install traps and cleanouts.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-</p>	<p><b>KEY IDEAS/DETAILS</b> <b>GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS</b></p>	<p><b>TEXT TYPES AND PURPOSE</b> <b>GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE</b> <b>GRADES 11-12</b></p>	<p><b>NUMBERS AND OPERATIONS</b> <b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b></p>

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	<p>8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE</b> <b>GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc. <b>Standard CC.3.5.9-10.F</b> Analyze the author's purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE</b> <b>GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text. <b>Standard CC.3.5.11-12.F</b></p>	<p><b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b> <b>GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b> <b>GRADES 11-12</b> <b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p>	<p>Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRY</b> <b>Standard CC.2.3.HS.A.1</b> Use geometric figures and their properties to represent transformations in the plane. <b>Standard CC.2.3.HS.A.12</b> Explain volume formulas and use them to solve problems. <b>Standard CC.2.3.HS.A.13</b> Analyze relationships between two dimensional and three dimensional objects. <b>Standard CC.2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>

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		<p>Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b> <b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). <b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p>	<p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b> <b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.9-10.G.</b> Gather relevant information. <b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and</p>	

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		<b>RANGE OF READING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.	shorter time frames for a range of tasks, purposes and audiences...etc.	
<b>1600. INSTALL APPLIANCES.</b>				
1601 Describe the installation of a dishwasher. 1602 Describe the installation of an electric water heater. 1603 Describe the installation of a gas water heater. 1604 Describe the installation of a clothes washing machine. 1605 Describe the installation of an oil fired water heater. 1606 Describe the installation of a water re-circulating pump. 1607 Describe the installation of a garbage disposal unit. 1608 Describe the installation of a sump pump. 1609 Describe the installation of a sewer pump.	<b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7  <b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9  <i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6	<b>KEY IDEAS/DETAILS GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...  <b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...  <b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols,	<b>TEXT TYPES AND PURPOSE GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.  <b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.  <b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b>	<b>NUMBERS AND OPERATIONS Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.

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Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b></p> <p><b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b></p> <p><b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p> <p><b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for</p>	<p>Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b></p> <p><b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b></p> <p><b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.9-10.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.9-10.H.</b> Draw evidence from</p>	

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		<p>solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p>informational texts.</p> <p><b>RESEARCH GRADES 11-12 Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12 Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<b>1700. INSTALL VENTS.</b>				
<p>1701 Install soil or waste back vents. 1702 Install soil or waste loop vents. 1703 Demonstrate knowledge for installation of a vent terminal (roof flashing).</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from:</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp;</b></p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B</b> Write informative or</p>	<p><b>NUMBERS AND OPERATIONS Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real</p>

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	<p>1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p>Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc. <b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols,</p>	<p>explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b> <b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task,</p>	<p>world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

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		<p>key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b> <b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). <b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data,</p>	<p>purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10</b> <b>Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.9-10.G.</b> Gather relevant information. <b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p>	

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		<p>analysis, and conclusions in a technical text, verifying the data when possible.</p> <p><b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p><b>RANGE OF WRITING GRADES 9-10-11-12 Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<p><b>1800. MAINTAIN PLUMBING SYSTEMS.</b></p>				
<p>1801 Clear obstructions from lavatory drains. 1802 Remove obstructions from main drain lines. 1803 Remove obstructions from water closets. 1804 Repair/replace lavatory trap drains, and leaking water faucets or valves. 1805 Repair leaking shower valves. 1806 Repair water flush valves on water closets. 1807 Replace a damaged section of galvanized water plumbing system. 1808 Explain how to thaw frozen pipes. 1809 Disassemble P traps to clear lavatory drains. 1810 Repair/replace any type of water closet. 1811 Replace all components in a tank style toilet.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.11-12.B. Standard CC.3.5.11-12.C.</b> Determine the central ideas or conclusions of a text; etc...</p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12 Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF</b></p>	<p><b>NUMBERS AND OPERATIONS Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems.</p> <p><b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

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		<p>Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10 Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12 Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</b></p>	<p><b>WRITING GRADES 9-10 Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12 Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10 Standard CC.3.6.9-10.F.</b></p>	

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		<p><b>Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p> <p><b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem.</p> <p><b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.</p> <p><b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.</p> <p><b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical</p>	<p>Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.9-10.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.11-12.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	

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<b>1900. PERFORM TESTS ON PIPING SYSTEMS.</b>		texts independently and proficiently.		
1901 Perform head pressure tests. 1902 Perform hydrostatic tests. 1903 Perform leak tests on gas supply lines.	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp;</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc. <b>Standard CC.3.5.9-10.F</b></p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p>	

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		<p>Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12 Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10 Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p> <p><b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem.</p> <p><b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/</b></p>	<p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12 Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10 Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.9-10.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12 Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research.</p>	

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Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
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		<p><b>IDEAS</b> <b>GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING</b> <b>GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p><b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING</b> <b>GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
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<b>2000. PERFORM ADVANCED PIPE FABRICATION.</b>				
<p>2001 Calculate simple piping offsets. 2002 Calculate three line 45° equal spread offsets around a vessel. 2003 Calculate three line 45° unequal spread offsets. 2004 Convert center, back throat, and/or face measurement to an end measurement.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction</i> <i>Careers</i></p>	<p><b>KEY IDEAS/DETAILS</b> <b>GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp;</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p>	<p><b>TEXT TYPES AND PURPOSE</b> <b>GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE</b></p>	<p><b>NUMBERS AND OPERATIONS</b> <b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems.</p>

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	<p>Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</b> <b>GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc... <b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE</b> <b>GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc. <b>Standard CC.3.5.9-10.F</b> Analyze the author's purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE</b> <b>GRADES 11-12</b> <b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words... <b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a</p>	<p><b>GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b> <b>GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b> <b>GRADES 11-12</b> <b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience. <b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed. <b>Standard CC.3.6.11-12.D.</b> Develop and strengthen</p>	<p><b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

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		<p>text. <b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10 Standard CC.3.5.9-10.G.</b> Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). <b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem. <b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range</p>	<p>writing as needed. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH GRADES 9-10 Standard CC.3.6.9-10.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.9-10.G.</b> Gather relevant information. <b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12 Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research. <b>Standard CC.3.6.11-12.G.</b> Gather relevant information. <b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12 Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b></p>	

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		<p>of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p>Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
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<b>2100. WORK WITH PRESSURE BOILERS.</b>				
<p>2101 Identify and explain various boiler fittings and accessories, including thermo expansion devices.</p> <p>2102 Discuss the various types of boilers.</p> <p>2103 Identify and explain various boiler, steam, and hot water fittings and piping.</p> <p>2104 Identify and explain feed water accessories.</p> <p>2105 Identify and explain steam and hot water accessories.</p> <p>2106 Explain the operation of a boiler and its various controls.</p> <p>2107 Explain the operation of the draft controls.</p> <p>2108 Identify and explain boiler safety.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i> Choose standards from 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.11-12.B. Standard CC.3.5.11-12.C.</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE</b></p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12 Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10 Standard CC.3.6.9-10.C</b> Produce clear and coherent</p>	<p><b>NUMBERS AND OPERATIONS Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems.</p> <p><b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRY Standard CC.2.3.HS.A.1</b> Use geometric figures and their</p>

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		<p><b>GRADES 9-10</b>  <b>Standard CC.3.5.9-10.D.</b>            Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b>            Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b>            Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.5.11-12.D.</b>            Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b>            Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b>            Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b>  <b>GRADES 9-10</b>  <b>Standard CC.3.5.9-10.G.</b>            Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p>	<p>writing...appropriate to task, purpose, and audience.  <b>Standard CC.3.6.9-10 D</b>            Develop and strengthen writing as needed.  <b>Standard CC.3.6.9-10.E</b>            Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.6...11-12 C</b>            Produce clear and coherent writing...appropriate to task, purpose, and audience.  <b>Standard CC.3.6.9-10 D</b>            Develop and strengthen writing as needed.  <b>Standard CC.3.6.11-12.D.</b>            Develop and strengthen writing as needed.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH</b>  <b>GRADES 9-10</b>  <b>Standard CC.3.6.9-10.F.</b>            Conduct short and more sustained research.  <b>Standard CC.3.6.9-10.G.</b>            Gather relevant</p>	<p>properties to represent transformations in the plane.  <b>Standard CC.2.3.HS.A.7</b>            Apply trigonometric ratios to solve problems involving right triangles.  <b>Standard CC.2.3.HS.A.12</b>            Explain volume formulas and use them to solve problems.  <b>Standard CC.2.3.HS.A.13</b>            Analyze relationships between two dimensional and three dimensional objects.  <b>Standard CC.2.3.HS.A.14</b>            Apply geometric concepts to model and solve real world problems.</p>

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		<p><b>Standard CC.3.5.9-10.H.</b> Assess the reasoning in a text to support the author’s claim for solving a technical problem.</p> <p><b>Standard CC.3.5.9-10.I.</b> Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</b> <b>Standard CC.3.5.11-12.G.</b> Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.</p> <p><b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.</p> <p><b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p>information.</p> <p><b>Standard CC.3.6.9-10.H.</b> Draw evidence from informational texts.</p> <p><b>RESEARCH GRADES 11-12</b> <b>Standard CC.3.6.11-12.F.</b> Conduct short and more sustained research.</p> <p><b>Standard CC.3.6.11-12.G.</b> Gather relevant information.</p> <p><b>Standard CC.3.6.11-12.H.</b> Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<b>2200. WORK WITH HYDRONIC HEATING SYSTEM.</b>				
2201 Describe and design a hydronic heating system.	<b>CLUSTER:</b> <i>Architecture and</i>	<b>KEY IDEAS/DETAILS GRADES 9-10</b>	<b>TEXT TYPES AND PURPOSE</b>	<b>NUMBERS AND OPERATIONS</b>

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<p>2202 Describe and design primary and secondary loops. 2203 Calculate layout, and design a radiant floor system.</p>	<p><b>Construction</b> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <b>Construction</b> <b>Careers</b> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><b>Maintenance Operations</b> Choose standards from 1-2-3-4-5-6</p>	<p><b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.9-10B &amp;</b> Determine the central ideas or conclusions of a text; etc...</p> <p><b>Standard CC.3.5.9-10.C</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc....</p> <p><b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc...</p> <p><b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b> <b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE</b></p>	<p><b>GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b> <b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b></p>	<p><b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems.</p> <p><b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

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		<p><b>GRADES 11-12</b>  <b>Standard CC.3.5.11-12.D.</b>            Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b>            Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b>            Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b>  <b>GRADES 9-10</b>  <b>Standard CC.3.5.9-10.G.</b>            Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).  <b>Standard CC.3.5.9-10.H.</b>            Assess the reasoning in a text to support the author’s claim for solving a technical problem.  <b>Standard CC.3.5.9-10.I.</b>            Compare and contrast findings presented in a text to those from other sources, etc...</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.5.11-12.G.</b>            Integrate and evaluate multiple sources of information presented in</p>	<p><b>Standard CC.3.6...11-12 C</b>            Produce clear and coherent writing...appropriate to task, purpose, and audience.  <b>Standard CC.3.6.9-10 D</b>            Develop and strengthen writing as needed.  <b>Standard CC.3.6.11-12.D.</b>            Develop and strengthen writing as needed.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p> <p><b>RESEARCH</b>  <b>GRADES 9-10</b>  <b>Standard CC.3.6.9-10.F.</b>            Conduct short and more sustained research.  <b>Standard CC.3.6.9-10.G.</b>            Gather relevant information.  <b>Standard CC.3.6.9-10.H.</b>            Draw evidence from informational texts.</p> <p><b>RESEARCH</b>  <b>GRADES 11-12</b>  <b>Standard CC.3.6.11-12.F.</b>            Conduct short and more sustained research.  <b>Standard CC.3.6.11-12.G.</b>            Gather relevant information.  <b>Standard CC.3.6.11-12.H.</b></p>	

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		<p>diverse formats...to solve a problem. <b>Standard CC.3.5.11-12.H.</b> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.</p> <p><b>Standard CC.3.5.11-12.I.</b> Synthesize information from a range of sources into a coherent understanding.</p> <p><b>RANGE OF READING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>	<p>Draw evidence from informational texts for research.</p> <p><b>RANGE OF WRITING GRADES 9-10-11-12</b> <b>Standard CC.3.5.9-10.I and Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	
<p><b>2300. DEMONSTRATE SAFE USE OF LADDERS AND SCAFFOLDS.</b></p>				
<p>2301 Identify the different types of ladders and scaffolds used on a worksite. 2302 Properly set up, inspect, and use stepladders, extension ladders, and scaffolding.</p>	<p><b>CLUSTER:</b> <i>Architecture and Construction</i> Choose Cluster Standards from: 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> <i>Construction Careers</i> Choose Standards from: 1-2-3-4-5-6-7-8-9</p> <p><i>Maintenance Operations</i></p>	<p><b>KEY IDEAS/DETAILS GRADES 9-10</b> <b>Standard CC.3.5.9-10.A.</b> Cite specific textual evidence, etc.... <b>Standard CC.3.5.9-10B &amp; Standard CC.3.5.9-10.C</b> Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...</p> <p><b>KEY IDEAS/DETAILS GRADES 11-12</b> <b>Standard CC.3.5.11-12A</b> Cite specific textual evidence, etc....</p>	<p><b>TEXT TYPES AND PURPOSE GRADES 9-10</b> <b>Standard CC.3.6.9-10.B</b> Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p><b>TEXT TYPES AND PURPOSE GRADES 11-12</b> <b>Standard CC.3.6.11-12.B</b> Write informative or explanatory texts, including the narration of technical</p>	<p><b>NUMBERS AND OPERATIONS</b> <b>Standard 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems. <b>Standard 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multistep problems. <b>Standard 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p>

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	Choose standards from 1-2-3-4-5-6	<p><b>Standard CC.3.5.11-12.B.</b> Determine the central ideas or conclusions of a text; etc...</p> <p><b>Standard CC.3.5.11-12.C.</b> Follow precisely a complex multistep procedure, etc...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 9-10</b></p> <p><b>Standard CC.3.5.9-10.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.9-10.E</b> Analyze the structure of the relationships among concepts in a text. etc.</p> <p><b>Standard CC.3.5.9-10.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p><b>CRAFT &amp; STRUCTURE GRADES 11-12</b></p> <p><b>Standard CC.3.5.11-12.D.</b> Determine the meaning of symbols, key terms, and other domain specific words...</p> <p><b>Standard CC.3.5.11-12.E.</b> Analyze the structure of the relationships among concepts in a text.</p> <p><b>Standard CC.3.5.11-12.F</b> Analyze the author’s purpose in providing an explanation, describing a procedure...</p>	<p>processes, etc.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 9-10</b></p> <p><b>Standard CC.3.6.9-10.C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.9-10.E</b> Use technology, including the internet, to share writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING GRADES 11-12</b></p> <p><b>Standard CC.3.6...11-12 C</b> Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p><b>Standard CC.3.6.9-10 D</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.D.</b> Develop and strengthen writing as needed.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><b>Standard 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRY</b></p> <p><b>Standard CC.2.3.HS.A.1</b> Use geometric figures and their properties to represent transformations in the plane.</p> <p><b>Standard CC.2.3.HS.A.7</b> Apply trigonometric ratios to solve problems involving right triangles.</p> <p><b>Standard CC.2.3.HS.A.12</b> Explain volume formulas and use them to solve problems.</p> <p><b>Standard CC.2.3.HS.A.13</b> Analyze relationships between two dimensional and three dimensional objects.</p> <p><b>Standard CC.2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>

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		<b>Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J.</b> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.		