



# Building Property Maintenance Classification of Instructional Program (CIP) 46.0401

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

## 100 Demonstrate Safety in the Building and Property Maintenance Program

Secondary Competency Task Grid 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 2.1
<p><b>101</b> Demonstrate knowledge of general shop safety.</p> <p><b>102</b> Wear appropriate personal protective clothing.</p> <p><b>103</b> Wear eye protection, hearing protection, and respiratory protection each time it is required in the lab.</p> <p><b>104</b> Demonstrate knowledge of the Occupational Safety and Health Act (OSHA) and state its purposes.</p> <p><b>105</b> Demonstrate how to lift and carry heavy objects safely.</p> <p><b>106</b> Demonstrate knowledge of Safety Data Sheets (SDS) and their location in the shop/classroom.</p> <p><b>107</b> Demonstrate knowledge of general ladder safety.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</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...</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</b> <b>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</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...</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></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> <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.</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 writing products.</p> <p><b>PRODUCTION &amp; DISTRIBUTION OF WRITING</b> <b>GRADES 11-12</b></p>	

Secondary Competency Task Grid 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 2.1
		<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/ 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>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></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>  <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>  <b>Standard CC.3.5.9-10.I Standard CC.3.5.11-12.I.</b>  Write over extended and shorter time frames.</p>	

Secondary Competency Task Grid 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 2.1
		By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.		

## 200 Demonstrate Knowledge of the Building and Property Maintenance Training Lab

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<p><b>201</b> Demonstrate knowledge of BPM lab rules for behavior.</p> <p><b>202</b> Arrive to class on time; prepared to work.</p> <p><b>203</b> Follow safety rules for tools, machines and processes.</p> <p><b>204</b> Complete all theory assignments and homework on time.</p> <p><b>205</b> Identify BPM lab tools and equipment.</p> <p><b>206</b> Keep daily time cards and project logs.</p> <p><b>207</b> Record daily units/hour records.</p> <p><b>208</b> Describe work ethics.</p> <p><b>209</b> Demonstrate problem solving skills in completing shop projects.</p> <p><b>210</b> Demonstrate efficient methods of storing materials and supplies.</p> <p><b>211</b> Accurately demonstrate the ability to use measuring devices.</p> <p><b>212</b> Demonstrate how to estimate quantities of materials needed for a job.</p> <p><b>213</b> Identify student organizations if they exist in the school.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</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>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, <b>Standard CC.3.5.11-12.F</b> Analyze the author's purpose in providing an explanation, describing a procedure...</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	

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## 300 Perform Basic Carpentry and Repair Tasks

Secondary Competency Task Grid 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 2.1
<p>301 Identify common building materials.            302 Read and interpret building plans.            303 Prepare a bill of material.            304 Layout stock.            305 Layout angles.            306 Find the center line of stock.            307 Use a sliding T-bevel to transfer an angle.            308 Transfer a cut line using a marking gauge.            309 Test a level for accuracy in the vertical and horizontal positions.            310 Test a horizontal surface using a level.            311 Test a vertical surface using a level.            312 Snap a chalk line.            313 Cut a miter using a miter saw.            314 Bore a hole with an auger bit.            315 Bore holes with a portable electric drill.            316 Identify and select various nails for a specific job.            317 Drive and remove nails using a claw hammer.            318 Set finish nails with a nail set.            319 Pull nails with a wrecking bar.            320 Assemble miter joints by nailing.            321 Select and drive screw-type fasteners by hand.            322 Identify fasteners for various uses.            323 Identify anchors for masonry repair jobs.            324 Reserved            325 Drive/remove screws with a portable electric drill.            326 Cut a gain for butt hinges and install butt hinges.</p>	<p><b>CLUSTER:</b>            Architecture and Construction            Choose Cluster Standards            1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b>            Construction Careers            Choose Standards            1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations            Choose standards 1-2-3-4-5-6</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>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,  <b>Standard CC.3.5.11-12.F</b>            Analyze the author's purpose in providing an explanation, describing a procedure...</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>  <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.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p>	<p><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.  <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><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>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 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 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>	

## 400 Operate Portable Power Tools

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<p><b>401</b> State and follow all safety rules and precautions for using portable power tools.</p> <p><b>402</b> Operate portable electric and battery operated drills.</p> <p><b>403</b> Operate a metal cutting (abrasive disc) chop saw.</p> <p><b>404</b> Operate a portable jigsaw and reciprocating saw.</p> <p><b>405</b> Operate a router.</p> <p><b>406</b> Operate disc grinders.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</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...</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</b> <b>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</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...</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</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> <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.</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</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.</p> <p><b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><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.</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>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>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 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 Standard CC.3.5.11-12.I.</b> Write over extended and shorter time frames, etc.</p>	

## 500 Operate a Table Saw

Secondary Competency Task Grid 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 2.1
<p><b>501</b> State and follow all safety rules and precautions for using a table saw.</p> <p><b>502</b> Rip stock on a table saw.</p> <p><b>503</b> Crosscut stock on a table saw with a miter gauge.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><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. <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>

Secondary Competency Task Grid 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 2.1
		read and comprehend technical texts independently and proficiently.	<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 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>	

## 600 Operate a Drill Press

Secondary Competency Task Grid 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 2.1
<p><b>601</b> State and follow all safety rules and precautions for using a drill press.</p> <p><b>602</b> Drill holes in metal using a drill press.</p> <p><b>603</b> Drill holes in nonmetallic materials using a drill press.</p> <p><b>604</b> Sand curves and radii on a drill press.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><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. <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>

Secondary Competency Task Grid 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 2.1
		read and comprehend technical texts independently and proficiently.	<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 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>	

## 700 Operate a Compound Miter Saw

Secondary Competency Task Grid 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 2.1
<p><b>701</b> State and follow all safety rules and precautions for using a compound miter saw.</p> <p><b>702</b> Cut stock to length on a miter saw.</p> <p><b>703</b> Cut angles on a miter saw.</p> <p><b>704</b> Cut compound angles on a miter saw.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><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. <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>

Secondary Competency Task Grid 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 2.1
		read and comprehend technical texts independently and proficiently.	<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 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>	

## 800 Operate a Bench Grinder

Secondary Competency Task Grid 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 2.1
<p><b>801</b> State and follow all safety rules and precautions for using a bench grinder.</p> <p><b>802</b> Sharpen cutting tools on a bench grinder.</p> <p><b>803</b> De-burr stock on a bench grinder.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	



Secondary Competency Task Grid 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 2.1
		read and comprehend technical texts independently and proficiently.	<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 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>	

## 900 Perform Regular Tool and Machine Maintenance

Secondary Competency Task Grid 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 2.1
<p><b>901</b> Identify broken tools and replace or repair immediately.</p> <p><b>902</b> Examine power tool and extension cords for damage; replace or repair.</p> <p><b>903</b> Lubricate moving parts of power tools as recommended by the manufacturer.</p> <p><b>904</b> Replace saw blades and other cutting tool accessories when they become dull.</p> <p><b>905</b> Sharpen edge cutting tools.</p> <p><b>906</b> Remove dust from power tool stators and rotors with vacuum equipment.</p> <p><b>907</b> Remove paint, oils, water, and lubricants from tool handles, and power tool housings and chassis.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	

Secondary Competency Task Grid 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 2.1
		read and comprehend technical texts independently and proficiently.	<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 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>	

# 1000 Build and Repair Floors

Secondary Competency Task Grid 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 2.1
<p><b>1001</b> Identify floor members.  <b>1002</b> Install joist hangers.  <b>1003</b> Install or replace bridging between joists.  <b>1004</b> Repair (remove or replace) plywood subflooring on joists.</p>	<p><b>CLUSTER:</b>            Architecture and Construction            Choose Cluster Standards            1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b>            Construction Careers            Choose Standards            1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations            Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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>            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 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,</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>  <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.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p>	<p><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.  <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>

Secondary Competency Task Grid 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 2.1
		read and comprehend technical texts independently and proficiently.	<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 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>	

# 1100 Build and Repair Roofs

Secondary Competency Task Grid 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 2.1
<p><b>1101</b> Identify roof members.  <b>1102</b> Identify rood types.  <b>1103</b> Repair roof sheathing.  <b>1104</b> Install and replace asphalt shingles.  <b>1105</b> Remove and replace a damaged shingle.  <b>1106</b> Demonstrate proper application of sealing compounds and caulking.  <b>1107</b> Describe/demonstrate the knowledge of the repair of a flat rubber type roof.</p>	<p><b>CLUSTER:</b>            Architecture and Construction            Choose Cluster Standards            1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b>            Construction Careers            Choose Standards            1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations            Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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>            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 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,</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>  <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.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p>	<p><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.  <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>

Secondary Competency Task Grid 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 2.1
		read and comprehend technical texts independently and proficiently.	<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 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>	

# 1200 Build and Repair Stairs and Staircases

Secondary Competency Task Grid 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 2.1
<p><b>1201</b> Repair damage to stair stringers and carriages.</p> <p><b>1202</b> Repair stair risers and treads.</p> <p><b>1203</b> Install or repair a stair railing.</p> <p><b>1204</b> Describe the installation and layout of stairs stringer/horse.</p> <p><b>1205</b> Reserved</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><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. <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>



Secondary Competency Task Grid 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 2.1
		read and comprehend technical texts independently and proficiently.	<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 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>	

# 1300 Install and Repair Doors and Windows

Secondary Competency Task Grid 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 2.1
<p><b>1301</b> Install a new exterior lock set.  <b>1302</b> Hang an interior door.  <b>1303</b> Cut and install molding.  <b>1304</b> Trim a door jamb and/or a window unit.  <b>1305</b> Trim a window, stool, apron, casing, and extension jambs.</p>	<p><b>CLUSTER:</b>            Architecture and Construction            Choose Cluster Standards            1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b>            Construction Careers            Choose Standards            1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations            Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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>            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 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,</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>  <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.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p>	<p><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.  <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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		read and comprehend technical texts independently and proficiently.	<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 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>	

# 1400 Apply and Repair Interior Walls

Secondary Competency Task Grid 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 2.1
<p><b>1401</b> Cut drywall with a utility knife.  <b>1402</b> Install drywall board.  <b>1403</b> Install metal corners prior to finishing drywall.  <b>1404</b> Tape and smooth drywall.  <b>1405</b> Cope an inside corner.  <b>1406</b> Miter an outside corner.  <b>1407</b> Install rubber baseboard trim.  <b>1408</b> Repair suspended ceiling grids and tiles.</p>	<p><b>CLUSTER:</b>            Architecture and Construction            Choose Cluster Standards            1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b>            Construction Careers            Choose Standards            1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations            Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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>            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 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,</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>  <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.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p>	<p><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.  <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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		read and comprehend technical texts independently and proficiently.	<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 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>	

# 1500 Build and Repair Exterior Walls

Secondary Competency Task Grid 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 2.1
<p><b>1501</b> Identify, repair or replace siding components.</p> <p><b>1502</b> Identify, repair and clean gutter spouting components.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><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. <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>Standard CC.2.4.HS.B.5</b> Make inferences and justify conclusions based on sample surveys, experiments, and observational studies. <b>Standard CC.2.2.HS.D.3</b> Extend the knowledge of arithmetic operations and apply to polynomials. <b>Standard CC.2.2.HS.D.8</b> Apply inverse operations to solve equations or formulas for a given variable. <b>Standard CC.2.2.HS.D.9</b> Use reasoning to solve equations and justify the solution method.</p>

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		read and comprehend technical texts independently and proficiently.	<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 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>	

# 1600 Demonstrate Masonry Skills

Secondary Competency Task Grid 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 2.1
<p><b>1601</b> Practice safety while performing masonry work.</p> <p><b>1602</b> Identify common masonry tools.</p> <p><b>1603</b> Identify masonry supplies.</p> <p><b>1604</b> Identify safety hazards to masonry workers.</p> <p><b>1605</b> Mix mortar for block work.</p> <p><b>1606</b> Identify and describe uses of block types.</p> <p><b>1607</b> Cut block and brick with a masonry hammer.</p> <p><b>1608</b> Check work for plumb.</p> <p><b>1609</b> Check work for level.</p> <p><b>1610</b> Check work for straightness.</p> <p><b>1611</b> Strike off a block wall.</p> <p><b>1612</b> Clean mortar from block and brick work.</p> <p><b>1613</b> Mix mortar for brick work.</p> <p><b>1614</b> Identify standard brick bonds.</p> <p><b>1615</b> Identify and describe types of brick and their uses.</p> <p><b>1616</b> Cut brick and block with a brick set.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><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. <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>Standard CC.2.4.HS.B.5</b> Make inferences and justify conclusions based on sample surveys, experiments, and observational studies. <b>Standard CC.2.2.HS.D.3</b> Extend the knowledge of arithmetic operations and apply to polynomials. <b>Standard CC.2.2.HS.D.8</b> Apply inverse operations to solve equations or formulas for a given variable. <b>Standard CC.2.2.HS.D.9</b> Use reasoning to solve equations and justify the solution method.</p>



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# 1700 Place Concrete

Secondary Competency Task Grid 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 2.1
<p>1701 Build forms for a concrete slab.            1702 Mix concrete to a 1-2-3 proportion.            1703 Cast a concrete slab.            1704 Float concrete.            1705 Finish concrete.            1706 Patch steps and walkways.            1707 Re-set masonry anchors.</p>	<p><b>CLUSTER:</b>            Architecture and Construction            Choose Cluster Standards            1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b>            Construction Careers            Choose Standards            1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations            Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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>            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 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,</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>  <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.  <b>Standard CC.3.6.11-12.E.</b>            Use technology, including the internet, to...share writing products.</p>	<p><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.  <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>

Secondary Competency Task Grid 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 2.1
		read and comprehend technical texts independently and proficiently.	<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 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>	

# 1800 Install and Repair Floor and Wall Tile

Secondary Competency Task Grid 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 2.1
<p><b>1801</b> Estimate the quantity of tile needed for a repair.</p> <p><b>1802</b> Discuss tile terminology and applications.</p> <p><b>1803</b> Identify adhesives and mortars.</p> <p><b>1804</b> List, identify and explain tile tools and equipment.</p> <p><b>1805</b> List and explain various methods of installing tile.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	

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		read and comprehend technical texts independently and proficiently.	<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 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>	

# 1900 Repair Residential Electrical Circuits

Secondary Competency Task Grid 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 2.1
<p><b>1901</b> Apply the National Electric Code (NEC) to common installations.</p> <p><b>1902</b> Practice electrical safety.</p> <p><b>1903</b> Identify and use electrical tools.</p> <p><b>1904</b> Read and interpret electrical drawings.</p> <p><b>1905</b> Identify electrical symbols.</p> <p><b>1906</b> Understand and apply electrical theory.</p> <p><b>1907</b> Identify wire sizes and ampacities.</p> <p><b>1908</b> Identify wire types.</p> <p><b>1909</b> Use connectors/wire nuts to connect or splice wire.</p> <p><b>1910</b> Discuss proper disposal of fluorescent bulbs.</p> <p><b>1911</b> Change fluorescent bulbs.</p> <p><b>1912</b> Replace extension cord ends, male/female.</p> <p><b>1913</b> Reset an electric circuit breaker.</p> <p><b>1914</b> Install a ground fault circuit interrupting outlet.</p> <p><b>1915</b> Rough in a circuit.</p> <p><b>1916</b> Install a junction box.</p> <p><b>1917</b> Install adjustable bar hanger.</p> <p><b>1918</b> Install a light fixture.</p> <p><b>1919</b> Install a duplex receptacle.</p> <p><b>1920</b> Install a single pole switch.</p> <p><b>1921</b> Install a split wire duplex receptacle.</p> <p><b>1922</b> Install a 220 volt circuit.</p> <p><b>1923</b> Install a recessed light.</p> <p><b>1924</b> Install outlet boxes.</p> <p><b>1925</b> Bore holes for wire run.</p> <p><b>1926</b> Install Romex to boxes.</p> <p><b>1927</b> Staple Romex (non-metallic cable) according to code.</p> <p><b>1928</b> Install a three way switch.</p> <p><b>1929</b> Install a four way switch.</p> <p><b>1930</b> Install armored cable to boxes.</p> <p><b>1931</b> Install conduit to boxes.</p> <p><b>1932</b> Fish wire through conduit.</p> <p><b>1933</b> Install rework boxes.</p> <p><b>1934</b> Check and replace a 24 volt transformer.</p> <p><b>1935</b> Install circuit breakers.</p> <p><b>1936</b> Install a GFCI circuit breaker.</p> <p><b>1937</b> Demonstrate proper grounding techniques.</p> <p><b>1938</b> Replace a faulty circuit breaker.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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; 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<p><b>1939</b> Install low voltage wiring.</p> <p><b>1940</b> Install coaxial cable for television reception.</p> <p><b>1941</b> Install cabling for computer work stations.</p> <p><b>1942</b> Replace or install a ceiling fan.</p>		<p>read and comprehend technical texts independently and proficiently.</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 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>	

## 2000 Repair Residential Plumbing Systems

Secondary Competency Task Grid 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 2.1
<p><b>2001</b> Demonstrate knowledge of basic code regulations for water supply systems.</p> <p><b>2002</b> Demonstrate knowledge of basic plumbing code regulations for waste system.</p> <p><b>2003</b> Identify plumbing symbols.</p> <p><b>2004</b> Interpret plumbing drawings.</p> <p><b>2005</b> Identify types of pipes (including PEX pipe).</p> <p><b>2006</b> Identify plumbing pipe fittings.</p> <p><b>2007</b> Measure and cut steel pipe.</p> <p><b>2008</b> Thread steel pipe.</p> <p><b>2009</b> Install a supply line with steel pipe and fittings.</p> <p><b>2010</b> Sweat solder copper pipe and fittings using propane, MAPP, or Prestolite gas.</p> <p><b>2011</b> Install and replace copper pipe and fittings.</p> <p><b>2012</b> Solvent weld PVC (polyvinyl chloride) plastic pipe.</p> <p><b>2013</b> Install and repair PVC plastic pipe and fittings.</p> <p><b>2014</b> Repair waste water drains.</p> <p><b>2015</b> Install replace, and repair commodes.</p> <p><b>2016</b> Install lavatories and sinks.</p> <p><b>2017</b> Hook up water supply lines and waste water lines to a bathtub.</p> <p><b>2018</b> Install or replace a garbage disposal unit.</p> <p><b>2019</b> Clean and/or replace waste water traps and pipes.</p> <p><b>2020</b> Replace and repair a faucet set.</p> <p><b>2021</b> Identify and replace valves.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><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. <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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## 2100 Apply Finishing Materials

Secondary Competency Task Grid 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 2.1
<p><b>2101</b> Demonstrate methods for protecting furniture, materials and surrounding surfaces from overspray and paint spatter.</p> <p><b>2102</b> Demonstrate procedures for taping door and window trim to protect them from finishing materials being applied.</p> <p><b>2103</b> Demonstrate how to prepare a surface prior to applying a finish.</p> <p><b>2104</b> Stain wood surfaces with wiping oil stains.</p> <p><b>2105</b> Apply a finish material with a brush and a roller.</p> <p><b>2106</b> Reserved</p> <p><b>2107</b> Apply oil base paints.</p> <p><b>2108</b> Apply acrylic base paints.</p> <p><b>2109</b> Reserved</p> <p><b>2110</b> Demonstrate proper procedures for cleaning paint brushes and rollers.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	

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		read and comprehend technical texts independently and proficiently.	<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 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>	

## 2200 Demonstrate Skill in Mechanics

Secondary Competency Task Grid 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 2.1
<p><b>2201</b> Identify safety hazards common to machines.</p> <p><b>2202</b> Practice safety while working on/with machines.</p> <p><b>2203</b> Clean mechanical devices.</p> <p><b>2204</b> Lubricate machines.</p> <p><b>2205</b> Make machine adjustments for jobs.</p> <p><b>2206</b> Reserved</p> <p><b>2207</b> Define and discuss friction and lubrication.</p> <p><b>2208</b> Perform periodic maintenance.</p> <p><b>2209</b> Troubleshoot machine problems.</p> <p><b>2210</b> Repair/replace faulty parts.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	

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		read and comprehend technical texts independently and proficiently.	<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 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>	

## 2300 Demonstrate Safe Use of a Portable Circular Saw

Secondary Competency Task Grid 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 2.1
<p><b>2301</b> State and follow all safety rules and precautions for using a portable circular saw.</p> <p><b>2302</b> Rip stock with a portable circular saw.</p> <p><b>2303</b> Cut wood stock across its grain using a portable circular saw.</p> <p><b>2304</b> Cut miters with a portable circular saw.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	

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## 2400 Service Environmental Control Systems

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<p><b>2401</b> Identify the scales on a thermometer.</p> <p><b>2402</b> Reserved</p> <p><b>2403</b> Define BTU (British Thermal Unit).</p> <p><b>2404</b> Describe types of heat transfer.</p> <p><b>2405</b> Identify the components of a gas fuel heating system.</p> <p><b>2406</b> Identify the components of an oil fuel heating system.</p>	<p><b>CLUSTER:</b> Architecture and Construction Choose Cluster Standards 1-2-3-4-5-6-7</p> <p><b>2 PATHWAYS:</b> Construction Careers Choose Standards 1-2-3-4-5-6-7-8-9</p> <p>Maintenance Operations Choose standards 1-2-3-4-5-6</p>	<p><b>KEY IDEAS/DETAILS</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, <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 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,</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> <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. <b>Standard CC.3.6.11-12.E.</b> Use technology, including the internet, to...share writing products.</p>	<p><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. <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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