



**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
--	--	---	--	--

100. ORIENTATION AND SAFETY.				
<p>101 Demonstrate safe conduct in diesel shop.</p> <p>102 Identify and explain diesel occupations and certification programs.</p> <p>103 Identify truck classifications and configurations.</p> <p>104 Demonstrate use of service manuals and online service information.</p> <p>105 Demonstrate safety procedures and safe equipment operation.</p> <p>106 Understand OSHA regulations.</p> <p>107 Follow EPA standards for cleaning and disposal of waste and fluids.</p>	<p>CLUSTER: <i>Transportation , Distribution and Logistics</i></p> <p>Choose Cluster Standards from: 1-2-3-4-5-6</p> <p>PATHWAY: <i>Facility and Mobile Equipment Maintenance</i></p> <p>Choose Standards from: 1-2</p>	<p>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A. Cite specific textual evidence, etc....</p> <p>Standard CC.3.5.9-10B & Standard CC.3.5.9-10.C Determine the central ideas or conclusions of a text; etc... Standard CC.3.5.9-10.C Follow precisely a complex multistep procedure, etc...</p> <p>KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A Cite specific textual evidence, etc....</p> <p>Standard CC.3.5.11-12.B. Determine the central ideas or conclusions of a text; etc... Standard CC.3.5.11-12.C. Follow precisely a complex multistep procedure, etc...</p> <p>CRAFT & STRUCTURE GRADES 9-10 Standard CC.3.5.9-10.D. Determine the meaning of symbols, key terms, and other domain specific words... Standard CC.3.5.9-10.E Analyze the structure of the</p>	<p>TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p>TEXT TYPES AND PURPOSE GRADES 11-12 Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p>PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10 Standard CC.3.6.9-10.C Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p>PRODUCTION & DISTRIBUTION OF WRITING GRADES 11-12</p>	

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>relationships among concepts in a text. etc. Standard CC.3.5.9-10.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>CRAFT & STRUCTURE GRADES 11-12 Standard CC.3.5.11-12.D. Determine the meaning of symbols, key terms, and other domain specific words... Standard CC.3.5.11-12.E. Analyze the structure of the relationships among concepts in a text. Standard CC.3.5.11-12.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10 Standard CC.3.5.9-10.G. Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). Standard CC.3.5.9-10.H. Assess the reasoning in a text to support the author’s claim for solving a technical problem. Standard CC.3.5.9-10.I.</p>	<p>Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p>RANGE OF WRITING GRADES 9-10-11-12 Standard CC.3.5.9-10.I AND Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>Compare and contrast findings presented in a text to those from other sources, etc...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G. Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. Standard CC.3.5.11-12.H. Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. Standard CC.3.5.11-12.I. Synthesize information from a range of sources into a coherent understanding.</p> <p>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J. By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>		
200. TOOLS AND FASTENERS/HARDWARE.				
201 Identify and demonstrate the proper use of basic hand tools and power tools. 202 Identify and demonstrate the proper use of fasteners and hardware.	CLUSTER: <i>Transportation , Distribution and Logistics</i>	KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A. Cite specific textual evidence, etc....	TEXT TYPES AND PURPOSE GRADES 9-10 Standard CC.3.6.9-10.B	ALGEBRA Standard. 2.1.HS.F.4 Use units as a way to understand problems and to guide the

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
<p>203 Drill and use threading tools and extractors.</p> <p>204 Demonstrate the proper use of fractional and precision measuring tools.</p> <p>205 Use and convert US standard and metric precision measuring tools.</p> <p>206 Set up/shut down, cut and heat with oxyacetylene torch.</p>	<p>Choose Cluster Standards from: 1-2-3-4-5-6</p> <p>PATHWAY: <i>Facility and Mobile Equipment Maintenance</i></p> <p>Choose Standards from: 1-2</p>	<p>Standard CC.3.5.9-10B & Determine the central ideas or conclusions of a text; etc...</p> <p>Standard CC.3.5.9-10.C Follow precisely a complex multistep procedure, etc...</p> <p>KEY IDEAS/DETAILS GRADES 11-12</p> <p>Standard CC.3.5.11-12A Cite specific textual evidence, etc....</p> <p>Standard CC.3.5.11-12.B. Determine the central ideas or conclusions of a text; etc...</p> <p>Standard CC.3.5.11-12.C. Follow precisely a complex multistep procedure, etc...</p> <p>CRAFT & STRUCTURE GRADES 9-10</p> <p>Standard CC.3.5.9-10.D. Determine the meaning of symbols, key terms, and other domain specific words...</p> <p>Standard CC.3.5.9-10.E Analyze the structure of the relationships among concepts in a text. etc.</p> <p>Standard CC.3.5.9-10.F Analyze the author's purpose in providing an explanation, describing a procedure...</p>	<p>Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p>TEXT TYPES AND PURPOSE GRADES 11-12</p> <p>Standard CC.3.6.11-12.B Write informative or explanatory texts, including the narration of technical processes, etc.</p> <p>PRODUCTION & DISTRIBUTION OF WRITING GRADES 9-10</p> <p>Standard CC.3.6.9-10.C Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p>PRODUCTION & DISTRIBUTION OF WRITING GRADES 11-12</p> <p>Standard CC.3.6.11-12 C Produce clear and coherent writing...appropriate to task, purpose, and audience.</p> <p>Standard CC.3.6.9-10 D</p> <p>RANGE OF WRITING</p>	<p>solution of multistep problems.</p> <p>Standard. 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p>Standard. 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>CRAFT & STRUCTURE GRADES 11-12 Standard CC.3.5.11-12.D. Determine the meaning of symbols, key terms, and other domain specific words...</p> <p>Standard CC.3.5.11-12.E. Analyze the structure of the relationships among concepts in a text.</p> <p>Standard CC.3.5.11-12.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10 Standard CC.3.5.9-10.G. Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). Standard CC.3.5.9-10.H. Assess the reasoning in a text to support the author’s claim for solving a technical problem. Standard CC.3.5.9-10.I. Compare and contrast findings presented in a text to those from other sources, etc...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12</p>	<p>GRADES 9-10-11-12 Standard CC.3.5.9-10.I AND Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiences...etc.</p>	

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>Standard CC.3.5.11-12.G. Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem.</p> <p>Standard CC.3.5.11-12.H. Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.</p> <p>Standard CC.3.5.11-12.I. Synthesize information from a range of sources into a coherent understanding.</p> <p>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J. By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>		
300. SUSPENSION AND STEERING SYSTEMS.				
301 Inspect, repair, or replace steering linkage. 302 Inspect and adjust basic wheel alignment/inspect tires. 303 Inspect, repair, or replace steering gear box. 304 Test/service power steering system. 305 Service wheel bearings and hubs, according to TMC guidelines. 306 Inspect, repair, or replace shock absorbers. 307 Inspect, repair, or replace king pins. 308 Inspect, repair, or replace leaf springs. 309 Inspect, repair or replace air suspension components. 310 Inspect and service wheel assemblies.	<p>CLUSTER: <i>Transportation , Distribution and Logistics</i></p> <p>Choose Cluster Standards from: 1-2-3-4-5-6</p> <p>PATHWAY: <i>Facility and Mobile</i></p>	<p>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A. Cite specific textual evidence, etc....</p> <p>Standard CC.3.5.9-10B & Determine the central ideas or conclusions of a text; etc...</p> <p>Standard CC.3.5.9-10.C Follow precisely a complex multistep procedure, etc...</p>		<p>ALGEBRA Standard. 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multistep problems.</p> <p>Standard. 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p>Standard. 2.1.HS.F.6</p>

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
	<p><i>Equipment Maintenance</i> Choose Standards from: 1-2</p>	<p>KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A Cite specific textual evidence, etc.... Standard CC.3.5.11-12.B. Determine the central ideas or conclusions of a text; etc... Standard CC.3.5.11-12.C. Follow precisely a complex multistep procedure, etc...</p> <p>CRAFT & STRUCTURE GRADES 9-10 Standard CC.3.5.9-10.D. Determine the meaning of symbols, key terms, and other domain specific words... Standard CC.3.5.9-10.E Analyze the structure of the relationships among concepts in a text. etc. Standard CC.3.5.9-10.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>CRAFT & STRUCTURE GRADES 11-12 Standard CC.3.5.11-12.D. Determine the meaning of symbols, key terms, and other domain specific words... Standard CC.3.5.11-12.E.</p>		<p>Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p>GEOMETRY Standard CC.2.3.HS.A.1 Use geometric figures and their properties to represent transformations in the plane. Standard C.2.3.HS.A.3 Verify and apply geometric theorems as they relate to geometric figures. Standard CC.2.3.HS.A.5 Create justifications based on transformations to establish similarity of plane figures. Standard CC.2.3.HS.A.13 Analyze relationships between two dimensional and three dimensional objects. Standard CC.2.3.HS.A.14 Apply geometric concepts to model and solve real world problems.</p>

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>Analyze the structure of the relationships among concepts in a text. Standard CC.3.5.11-12.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10 Standard CC.3.5.9-10.G. Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). Standard CC.3.5.9-10.H. Assess the reasoning in a text to support the author’s claim for solving a technical problem. Standard CC.3.5.9-10.I. Compare and contrast findings presented in a text to those from other sources, etc...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G. Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. Standard CC.3.5.11-12.H. Evaluate the hypotheses, data, analysis, and conclusions in a</p>		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		technical text, verifying the data when possible. Standard CC.3.5.11-12.I. Synthesize information from a range of sources into a coherent understanding. RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J. By the end of grades 9-10, AND 11- 12, read and comprehend technical texts independently and proficiently.		
400. PREVENTIVE MAINTENANCE.				
401 Preventive maintenance schedules and procedures such as lube, oil, and filter service. 402 Perform preventive maintenance inspection. 403 Inspect, repair, or replace fifth wheel and mount.	CLUSTER: <i>Transportation , Distribution and Logistics</i> Choose Cluster Standards from: 1-2-3-4-5-6 PATHWAY: <i>Facility and Mobile Equipment Maintenance</i> Choose Standards from: 1-2	KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A. Cite specific textual evidence, etc.... Standard CC.3.5.9-10B & Determine the central ideas or conclusions of a text; etc... Standard CC.3.5.9-10.C Follow precisely a complex multistep procedure, etc... KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A Cite specific textual evidence, etc.... Standard CC.3.5.11-12.B.		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>Determine the central ideas or conclusions of a text; etc... Standard CC.3.5.11-12.C. Follow precisely a complex multistep procedure, etc...</p> <p>CRAFT & STRUCTURE GRADES 9-10 Standard CC.3.5.9-10.D. Determine the meaning of symbols, key terms, and other domain specific words... Standard CC.3.5.9-10.E Analyze the structure of the relationships among concepts in a text. etc. Standard CC.3.5.9-10.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>CRAFT & STRUCTURE GRADES 11-12 Standard CC.3.5.11-12.D. Determine the meaning of symbols, key terms, and other domain specific words... Standard CC.3.5.11-12.E. Analyze the structure of the relationships among concepts in a text. Standard CC.3.5.11-12.F Analyze the author’s purpose in providing an explanation, describing</p>		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>a procedure...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10 Standard CC.3.5.9-10.G. Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). Standard CC.3.5.9-10.H. Assess the reasoning in a text to support the author’s claim for solving a technical problem. Standard CC.3.5.9-10.I. Compare and contrast findings presented in a text to those from other sources, etc...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G. Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. Standard CC.3.5.11-12.H. Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. Standard CC.3.5.11-12.I. Synthesize information from a range of sources into a coherent understanding.</p>		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J. By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>		
500. BRAKE SYSTEM.				
<p>501 Inspect, repair, or replace hydraulic disc brakes components. 502 Inspect, repair, or replace hydraulic drum brakes components. 503 Inspect, repair, or replace S-cam drum brakes components. 505 Check operation of low air warning buzzer/indicator. 506 Inspect, repair, or replace air governors. 507 Replace hydraulic brake lines/bleed brakes. 508 Inspect, repair, or replace air brake lines. 509 Inspect, diagnose, or replace air brake chamber. 510 Inspect, diagnose, or replace master cylinder and hydraulic system components. 511 Diagnose, repair, or replace ABS components. 512 Inspect, repair, or replace air brake valves. 513 Inspect, repair, or replace air dryers. 514 Inspect, repair, or replace calipers. 515 Inspect, repair, or replace rotors. 516 Inspect, repair, or replace drums. 517 Inspect, repair, or replace slack adjusters.</p>	<p>CLUSTER: <i>Transportation , Distribution and Logistics</i></p> <p>Choose Cluster Standards from: 1-2-3-4-5-6</p> <p>PATHWAY: <i>Facility and Mobile Equipment Maintenance</i></p> <p>Choose Standards from: 1-2</p>	<p>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A. Cite specific textual evidence, etc.... Standard CC.3.5.9-10B & Determine the central ideas or conclusions of a text; etc... Standard CC.3.5.9-10.C Follow precisely a complex multistep procedure, etc...</p> <p>KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A Cite specific textual evidence, etc.... Standard CC.3.5.11-12.B. Determine the central ideas or conclusions of a text; etc... Standard CC.3.5.11-12.C. Follow precisely a complex multistep procedure, etc...</p> <p>CRAFT & STRUCTURE GRADES 9-10</p>		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>Standard CC.3.5.9-10.D. Determine the meaning of symbols, key terms, and other domain specific words...</p> <p>Standard CC.3.5.9-10.E Analyze the structure of the relationships among concepts in a text. etc.</p> <p>Standard CC.3.5.9-10.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>CRAFT & STRUCTURE GRADES 11-12</p> <p>Standard CC.3.5.11-12.D. Determine the meaning of symbols, key terms, and other domain specific words...</p> <p>Standard CC.3.5.11-12.E. Analyze the structure of the relationships among concepts in a text.</p> <p>Standard CC.3.5.11-12.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</p> <p>Standard CC.3.5.9-10.G. Translate quantitative or technical information expressed in a text into</p>		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>visual form (e.g. a table or chart). Standard CC.3.5.9-10.H. Assess the reasoning in a text to support the author’s claim for solving a technical problem. Standard CC.3.5.9-10.I. Compare and contrast findings presented in a text to those from other sources, etc...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G. Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. Standard CC.3.5.11-12.H. Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. Standard CC.3.5.11-12.I. Synthesize information from a range of sources into a coherent understanding.</p> <p>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J. By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
--	--	---	--	--

600. DEMONSTRATE KNOWLEDGE OF THE ENGINE.				
<p>601 Explain diesel engine operation and identify parts.</p> <p>602 Remove, inspect, or install camshaft, and valve train components.</p> <p>603 Remove, inspect, or install piston, connecting rod, and liner.</p> <p>604 Remove, inspect, or install crankshaft and bearings (main and rods).</p> <p>605 Replace engine oil seal.</p> <p>606 Perform diesel tune up (set overhead).</p> <p>607 Remove, inspect, or install cylinder head and gasket.</p> <p>608 Remove, inspect, or install oil pump.</p> <p>609 Remove, inspect, or install vibration dampener and flywheel.</p>	<p>CLUSTER: <i>Transportation , Distribution and Logistics</i></p> <p>Choose Cluster Standards from: 1-2-3-4-5-6</p> <p>PATHWAY: <i>Facility and Mobile Equipment Maintenance</i></p> <p>Choose Standards from: 1-2</p>	<p>KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A. Cite specific textual evidence, etc....</p> <p>Standard CC.3.5.9-10B & Standard CC.3.5.9-10.C Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc...</p> <p>KEY IDEAS/DETAILS GRADES 11-12 Standard CC.3.5.11-12A Cite specific textual evidence, etc....</p> <p>Standard CC.3.5.11-12.B. Determine the central ideas or conclusions of a text; etc...</p> <p>Standard CC.3.5.11-12.C. Follow precisely a complex multistep procedure, etc...</p> <p>CRAFT & STRUCTURE GRADES 9-10 Standard CC.3.5.9-10.D. Determine the meaning of symbols, key terms, and other domain specific words...</p> <p>Standard CC.3.5.9-10.E Analyze the structure of the relationships among concepts in a</p>		<p>ALGEBRA Standard. 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multistep problems.</p> <p>Standard. 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p>Standard. 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers.</p>

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>text. etc.</p> <p>Standard CC.3.5.9-10.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>CRAFT & STRUCTURE GRADES 11-12</p> <p>Standard CC.3.5.11-12.D. Determine the meaning of symbols, key terms, and other domain specific words...</p> <p>Standard CC.3.5.11-12.E. Analyze the structure of the relationships among concepts in a text.</p> <p>Standard CC.3.5.11-12.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10</p> <p>Standard CC.3.5.9-10.G. Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart).</p> <p>Standard CC.3.5.9-10.H. Assess the reasoning in a text to support the author’s claim for solving a technical problem.</p> <p>Standard CC.3.5.9-10.I. Compare and contrast findings</p>		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
--	--	---	--	--

		<p>presented in a text to those from other sources, etc...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G. Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. Standard CC.3.5.11-12.H. Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. Standard CC.3.5.11-12.I. Synthesize information from a range of sources into a coherent understanding.</p> <p>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J. By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>		
--	--	---	--	--

700. AIR INTAKE AND EXHAUST SYSTEMS.				
701 Inspect, repair, or replace air induction system components. 702 Inspect, repair, or replace exhaust system and components. 703 Inspect, repair, or replace charge air coolers and after	CLUSTER: <i>Transportation , Distribution and Logistics</i>			

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
coolers. 704 Inspect, repair, or replace turbocharger.	Choose Cluster Standards from: 1-2-3-4-5-6 PATHWAY: <i>Facility and Mobile Equipment Maintenance</i> Choose Standards from: 1-2			
800. DEMONSTRATE KNOWLEDGE OF COOLING SYSTEM.				
801 Inspect/replace belts and pulleys. 802 Inspect/replace hoses and clamps. 803 Test/replace thermostat. 804 Drain, flush, refill and bleed cooling system. 805 Test antifreeze and supplemental coolant additives. 806 Test/replace radiator and pressure cap. 807 Inspect/replace water pump. 808 Test/inspect/repair fan drives.	CLUSTER: <i>Transportation , Distribution and Logistics</i> Choose Cluster Standards from: 1-2-3-4-5-6 PATHWAY: <i>Facility and Mobile Equipment Maintenance</i> Choose Standards from: 1-2			

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
900. FUEL SYSTEM.				
901 Replace fuel filters/strainers. 902 Inspect/replace fuel lines, tank, cap, and fittings. 903 Prime and bleed fuel system. 904 Test/service/remove/install injector/nozzle.	CLUSTER: <i>Transportation , Distribution and Logistics</i> Choose Cluster Standards from: 1-2-3-4-5-6 PATHWAY: <i>Facility and Mobile Equipment Maintenance</i> Choose Standards from: 1-2			
1000. ELECTRICAL/ELECTRONIC SYSTEM.				
1001 Test/service battery. 1002 Test/replace/adjust bulbs and lamps. 1003 Diagnose repair/replace electrical circuits and components. 1004 Test starting system and replace component assemblies. 1005 Test charging system output and replace component assemblies. 1006 Analyze and interpret schematics. 1007 Perform computer systems tests and analyze codes.	CLUSTER: <i>Transportation , Distribution and Logistics</i> Choose Cluster Standards from: 1-2-3-4-5-6 PATHWAY: <i>Facility and Mobile Equipment Maintenance</i>	KEY IDEAS/DETAILS GRADES 9-10 Standard CC.3.5.9-10.A. Cite specific textual evidence, etc.... Standard CC.3.5.9-10B & Standard CC.3.5.9-10.C Determine the central ideas or conclusions of a text; etc... Follow precisely a complex multistep procedure, etc... KEY IDEAS/DETAILS GRADES 11-12		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
	Choose Standards from: 1-2	<p>Standard CC.3.5.11-12A Cite specific textual evidence, etc....</p> <p>Standard CC.3.5.11-12.B. Determine the central ideas or conclusions of a text; etc...</p> <p>Standard CC.3.5.11-12.C. Follow precisely a complex multistep procedure, etc...</p> <p>CRAFT & STRUCTURE GRADES 9-10</p> <p>Standard CC.3.5.9-10.D. Determine the meaning of symbols, key terms, and other domain specific words...</p> <p>Standard CC.3.5.9-10.E Analyze the structure of the relationships among concepts in a text. etc.</p> <p>Standard CC.3.5.9-10.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>CRAFT & STRUCTURE GRADES 11-12</p> <p>Standard CC.3.5.11-12.D. Determine the meaning of symbols, key terms, and other domain specific words...</p> <p>Standard CC.3.5.11-12.E. Analyze the structure of the relationships among concepts in a</p>		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>text.</p> <p>Standard CC.3.5.11-12.F Analyze the author’s purpose in providing an explanation, describing a procedure...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 9-10 Standard CC.3.5.9-10.G. Translate quantitative or technical information expressed in a text into visual form (e.g. a table or chart). Standard CC.3.5.9-10.H. Assess the reasoning in a text to support the author’s claim for solving a technical problem. Standard CC.3.5.9-10.I. Compare and contrast findings presented in a text to those from other sources, etc...</p> <p>INTEGRATE KNOWLEDGE/ IDEAS GRADES 11-12 Standard CC.3.5.11-12.G. Integrate and evaluate multiple sources of information presented in diverse formats...to solve a problem. Standard CC.3.5.11-12.H. Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible.</p>		

**Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards**

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
		<p>Standard CC.3.5.11-12.I. Synthesize information from a range of sources into a coherent understanding.</p> <p>RANGE OF READING GRADES 9-10-11-12 Standard CC.3.5.9-10.J AND Standard CC.3.5.11-12.J. By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently.</p>		
1100. DRIVE LINE.				
<p>1101 Diagnose, replace and adjust drive line components. 1102 Perform clutch/clutch brake maintenance and adjustment.</p>	<p>CLUSTER: <i>Transportation , Distribution and Logistics</i></p> <p>Choose Cluster Standards from: 1-2-3-4-5-6</p> <p>PATHWAY: <i>Facility and Mobile Equipment Maintenance</i> Choose Standards from: 1-2</p>			

Medium and Heavy Vehicle and Truck Technology/Technician, Classification of Instructional Program (CIP) 47.0613
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards

Secondary Competency Task List with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.0
--	---	--	--	---