	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
100	ORIENTATION / SAFETY	CAREER CLUSTER	KEY IDEAS/DETAILS	TEXT TYPES AND	
101	Describe the Occupational Safety and Health Administration (OSHA) and its role in the machining industry.	Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7	 (FOR GRADES 9-10-11-12) Standard CC.3.5.9-10. A Standard CC.3.5.11-12 A Cite specific textual evidence, etc Standard CC.3.5.9-10 B 	PURPOSE (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.A</u> • <u>Standard CC.3.6.11-12.A</u> Write arguments focused on discipline-specific	
102	Identify & explain safety equipment and procedures.	CAREER PATHWAYS INCLUDE: Maintenance, Installation and Repair	 <u>Standard CC.3.5.11-12. B</u> Determine the central ideas or conclusions of a text; etc. <u>Standard CC.3.5.9-10.C</u> 	content. <u>Standard CC.3.6.9-10.B</u> <u>Standard CC.3.6.11-</u> 12.B	
103	Identify & explain general safety precautions.	Choose Standards) 1-2-3-4-5-6	Standard CC.3.5.17-10.C Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc	Write informative or explanatory texts, including the narration of technical	
104 105	Identify & describe personal/lab safety requirements. Explain Right to Know Law.	NOTE: Refer to the Common Core Technical	CRAFT & STRUCTURE (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. D</u> • <u>Standard CC.3.5.11-12.D</u>	processes, etc. PRODUCTION & DIST. OF WRITING- (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.C	
106	Explain location of MSDS.	Standards booklet if you wish to add more Career Pathways to meet the needs of your	Determine the meaning of symbols, key terms, and other domain-specific words. • <u>Standard CC.3.5.9-10.</u>	• <u>Standard CC.3.611-12 C</u> -Produce clear and coherent writing appropriate to task,	
107	Explain potential hazardous trade materials.	local Area.	Standard CC.3.5.11-12.E Analyze the structure of the relationships among concepts in a text, etc. Standard CC.3.5.9-10.F Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure and Analyze the structure of the relationships among concepts in a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10) Standard CC.3.5.9-10.G	 purpose, and audience. <u>Standard CC.3.6.9-10 D</u> <u>Standard CC.3.6.11-12.D</u> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. <u>Standard CC.3.6.9-10.E</u> <u>Standard CC.3.6.11-12.E.</u> Use technology, including the Internet, to produce, publish, and update 	

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
		Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). • <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. • <u>Standard CC.3.5.9-10. I</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 • <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. • <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. • <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding . RANGE OF READING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently.	individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) •Standard CC.3.6.9-10.F •Standard CC.3.6.9-10.F •Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.G</u> • <u>Standard CC.3.6.11-12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.6.11-12.H</u> . Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10.I</u> & • <u>Standard CC.3.5.9-10.I</u> Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiencesetc.	

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
200	PERFORM LAYOUT WORK.				
201 202	Perform layout work for NIMS certification. Prepare materials for layout.	CAREER CLUSTER Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7	KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. A</u> • <u>Standard CC.3.5.11-12 A</u> Cite specific textual evidence, etc	TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.A</u> • <u>Standard CC.3.6.11-12.A</u> Write arguments focused	MATH STANDARD AREA: <u>NUMBERS AND</u> <u>OPERATIONS</u> (FOR H.S.) <u>Standard 2.1.HS.F.2</u>
203	Identify and use basic & precision layout tools.	CAREER PATHWAYS INCLUDE: Maintenance, Installation and Repair Career Pathway (Choose Standards) 1-2-3-4-5-6 NOTE: Refer to the Common Core Technical Standards booklet if you wish to add more Career Pathways to meet the needs of your local Area.	 Standard CC.3.5.9-10 B Standard CC.3.5.9-10 B Standard CC.3.5.11-12. B Determine the central ideas or conclusions of a text; etc. Standard CC.3.5.9-10.C Standard CC.3.5.9-10.C Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc CRAFT & STRUCTURE (FOR GRADES 9-10-11-12) Standard CC.3.5.9-10. D Standard CC.3.5.9-10. D Standard CC.3.5.9-10. E Standard CC.3.5.9-10.E Standard CC.3.5.9-10.E Standard CC.3.5.9-10.F Standard CC.3.5.9-10.F Standard CC.3.5.9-10.F Standard CC.3.5.9-10.F Analyze the structure of the relationships among concepts in a text, etc. Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation, describing a procedure and Analyze the structure of the relationships among concepts in a text. 	on discipline-specific content. • <u>Standard CC.3.6.9-10.B</u> • <u>Standard CC.3.6.11-</u> <u>12.B</u> Write informative or explanatory texts, including the narration of technical processes, etc. PRODUCTION & DIST. OF WRITING- (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.C</u> • <u>Standard CC.3.6.9-10.C</u> • <u>Standard CC.3.6.9-10 D</u> • <u>Standard CC.3.6.9-10 D</u> • <u>Standard CC.3.6.9-10 D</u> • <u>Standard CC.3.6.11-12.D</u> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. • <u>Standard CC.3.6.9-10.E</u> • <u>Standard CC.3.6.9-10.E</u>	Apply properties of rational and irrational numbers to solve real world or mathematical problems. <u>Standard 2.1.HS.F.4</u> Use units as a way to understand problems and to guide the solution of multi- step problems. <u>Standard 2.1.HS.F.5</u> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <u>Standard 2.1.HS.F.6</u> Extend the knowledge of arithmetic operations and apply to complex numbers. <u>STANDARD AREA: <u>ALGEBRA</u> <u>Standard 2.2.HS.C.9</u> Prove the Pythagorean identity and use it to calculate trigonometric ratios. <u>STANDARD AREA: <u>GEOMETRY</u> <u>Standard 2.3.HS.A.7</u> Apply trigonometric ratios</u></u>
			& IDEAS (FOR GRADES 9-10) • <u>Standard CC.3.5.9-10.G</u>	Use technology, including the Internet, to produce, publish, and update	to solve problems involving right triangles.

Secondary Competency Task List	Common Career	CCS Standards For Reading	CCS Standards For	CCS Standards
With Unit and Task Numbers	Technical Core	for Technical Subjects	Writing for Technical	For Mathematics
	Standards	Standard 3.5	Subjects - Standard 3.6	Standard 2.0
	o turi do	Sundur d Die	-	Standard 2.0
			1	
		Translate quantitative or	individual or shared	Standard 2.3.HS.A.3
		technical information expressed	writing products.	Verify and apply geometric
		in a text into visual form (e.g., a table or chart).	RESEARCH (FOR GRADES 9-10-11-12)	theorems as they relate to Geometric figures.
		,	•Standard CC.3.6.9-10.F	Standard 2.3.HS.A.13
		• <u>Standard CC.3.5.9-10. H</u>	•Standard CC.3.6.11-12.F	Analyze relationships
		Assess the reasoning in a text to	Conduct short and more	between two-dimensional
		support the author's claim for	sustained research to	and three-dimensional
		solving a technical problem.	answer a question or solve	objects
		• <u>Standard CC.3.5.9-10. I</u>	a problem.	Ŭ
		Compare and contrast findings	<u>Standard CC.3.6.9-</u>	
		presented in a text to those from other sources, etc.	<u>10.G.</u>	
		,	• <u>Standard CC.3.6.11-</u>	
		INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12	<u>12.G</u>	
		Standard CC.3.5.11-12. G	Gather relevant information from multiple	
		Integrate and evaluate multiple	authoritative print and	
		sources of information presented	digital sources, following a	
		in diverse formats to solve a	standard format for	
		problem.	citation.	
		• Standard CC.3.5.11-12. H	• Standard CC.3.6.9-10.H.	
		Evaluate the hypotheses, data,	• Standard CC.3.6.11-	
		analysis, and conclusions in a	<u>12.H.</u>	
		technical text, verifying the data	Draw evidence from	
		when possible.	informational texts to	
		• <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of	support analysis, reflection, and research.	
		sources into a coherent	RANGE OF WRITING	
		understanding .	(FOR GRADES 9-10-11-12)	
		RANGE OF READING (FOR	• Standard CC.3.5.9-10.I	
		GRADES 9-10-11-12)	&	
		 <u>Standard CC.3.5.9-10.J</u> 	• Standard CC.3.5.11-12.I.	
		Standard CC.3.5.11-12.J	Write routinely over	
		By the end of grades 9- 10, AND	extended time frames and	
		11-12, read and comprehend	shorter time frames for a	
		technical texts independently and proficiently.	range of tasks, purposes	
		and proficiently.	and audiencesetc.	

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
300	INSPECT PARTS.				
301 302 303	Identify, care and use of precision measuring instruments. Calibrate precision measuring instruments. Describe methods used for quality control.	CAREER CLUSTER Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7 CAREER PATHWAYS INCLUDE: Maintenance, Installation and Repair Career Pathway (Choose Standards) 1-2-3-4-5-6 NOTE: Refer to the Common Core Technical Standards booklet if you wish to add more Career Pathways to meet the needs of your local Area.	 KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) Standard CC.3.5.9-10. A Standard CC.3.5.9-10. A Standard CC.3.5.11-12 A Cite specific textual evidence, etc Standard CC.3.5.9-10 B Standard CC.3.5.11-12. B Determine the central ideas or conclusions of a text; etc. Standard CC.3.5.9-10.C Standard CC.3.5.9-10.C Standard CC.3.5.9-10.C Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc CRAFT & STRUCTURE (FOR GRADES 9-10-11-12) Standard CC.3.5.9-10. D Standard CC.3.5.9-10. D Standard CC.3.5.9-10. E Standard CC.3.5.9-10.E Standard CC.3.5.9-10.E Standard CC.3.5.9-10.F Standard CC.3.5.9-10.F Standard CC.3.5.9-10.F Standard CC.3.5.9-10.F Analyze the structure of the relationships among concepts in a text, etc. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10) 	TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.A • Standard CC.3.6.11-12.A Write arguments focused on discipline-specific content. • Standard CC.3.6.9-10.B • Standard CC.3.6.9-10.B • Standard CC.3.6.9-10.B • Standard CC.3.6.11- 12.B Write informative or explanatory texts, including the narration of technical processes, etc. PRODUCTION & DIST. OF WRITING- (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.C • Standard CC.3.6.9-10.C • Standard CC.3.6.9-10.D • Standard CC.3.6.9-10 D • Standard CC.3.6.9-10.E • Standard CC.3.6.9-10.E • Standard CC.3.6.9-10.E • Standard CC.3.6.9-10.E	MATH STANDARD AREA: NUMBERS AND OPERATIONS (FOR H.S.) Standard 2.1.HS.F.2 Apply properties of rational and irrational numbers to solve real world or mathematical problems. Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multi- step problems. Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers. STANDARD AREA: <u>ALGEBRA</u> Standard 2.2.HS.C.9 Prove the Pythagorean identity and use it to calculate trigonometric ratios. STANDARD AREA: <u>GEOMETRY</u> Standard 2.3.HS.A.7 Apply trigonometric ratios to solve problems involving right triangles.
			• Standard CC.3.5.9-10.G	the Internet, to produce, publish, and update	right tranges.

Secondary Competency Task List	Common Career	CCS Standards For Reading	CCS Standards For	CCS Standards
With Unit and Task Numbers	Technical Core	for Technical Subjects	Writing for Technical	For Mathematics
With One and Tusk Mullipers	Standards	Standard 3.5	Subjects - Standard 3.6	Standard 2.0
	o turi do	Sundur d Die		Standard 2.0
		Translate quantitative or	individual or shared	Standard 2.3.HS.A.3
		technical information expressed	writing products.	Verify and apply geometric
		in a text into visual form (e.g., a table or chart).	RESEARCH (FOR GRADES 9-10-11-12)	theorems as they relate to Geometric figures.
		,	•Standard CC.3.6.9-10.F	Standard 2.3.HS.A.13
		• <u>Standard CC.3.5.9-10. H</u>	•Standard CC.3.6.11-12.F	Analyze relationships
		Assess the reasoning in a text to	Conduct short and more	between two-dimensional
		support the author's claim for	sustained research to	and three-dimensional
		solving a technical problem.	answer a question or solve	objects
		• <u>Standard CC.3.5.9-10. I</u>	a problem.	~
		Compare and contrast findings	<u>Standard CC.3.6.9-</u>	
		presented in a text to those from other sources, etc.	<u>10.G.</u>	
		,	• <u>Standard CC.3.6.11-</u>	
		INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12	<u>12.G</u>	
		Standard CC.3.5.11-12. G	Gather relevant information from multiple	
		Integrate and evaluate multiple	authoritative print and	
		sources of information presented	digital sources, following a	
		in diverse formats to solve a	standard format for	
		problem.	citation.	
		• Standard CC.3.5.11-12. H	• Standard CC.3.6.9-10.H.	
		Evaluate the hypotheses, data,	• Standard CC.3.6.11-	
		analysis, and conclusions in a	<u>12.H.</u>	
		technical text, verifying the data	Draw evidence from	
		when possible.	informational texts to	
		• <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of	support analysis, reflection, and research.	
		sources into a coherent	RANGE OF WRITING	
		understanding .	(FOR GRADES 9-10-11-12)	
		RANGE OF READING (FOR	• Standard CC.3.5.9-10.I	
		GRADES 9-10-11-12)	&	
		 <u>Standard CC.3.5.9-10.J</u> 	• <u>Standard CC.3.5.11-12.I.</u>	
		Standard CC.3.5.11-12.J	Write routinely over	
		By the end of grades 9- 10, AND	extended time frames and	
		11-12, read and comprehend	shorter time frames for a	
		technical texts independently and proficiently.	range of tasks, purposes and audiencesetc.	
		and pronciently.	and addiencesetc.	

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
400	PERFORM BENCH WORK.				
401	Demonstrate safety procedures when performing bench work . Cut material with a hand hacksaw.	CAREER CLUSTER Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7 CAREER PATHWAYS	KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) • Standard CC.3.5.9-10. A • Standard CC.3.5.11-12 A Cite specific textual evidence, etc • Standard CC.3.5.9-10 B • Standard CC.3.5.11-12. B	TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.A</u> • <u>Standard CC.3.6.11-12.A</u> Write arguments focused on discipline-specific content.	MATH STANDARD AREA: <u>NUMBERS AND</u> <u>OPERATIONS</u> (FOR H.S.) <u>Standard 2.1.HS.F.2</u> Apply properties of rational and irrational numbers to
403	File work to specifications.	INCLUDE: Maintenance, Installation and Repair Career Pathway	Determine the central ideas or conclusions of a text; etc. • <u>Standard CC.3.5.9-10.C</u> • <u>Standard CC.3.5.11-12.C</u>	<u>Standard CC.3.6.9-10.B</u> <u>Standard CC.3.6.11-</u> <u>12.B</u> Write informative or	solve real world or mathematical problems. Standard 2.1.HS.F.4 Use units as a way to
404	Cut threads with hand taps and dies. Assemble and disassemble parts.	(Choose Standards) 1-2-3-4-5-6	Follow precisely a complex multistep procedure, etc CRAFT & STRUCTURE (FOR GRADES 9-10-11-12)	explanatory texts, including the narration of technical processes, etc. PRODUCTION & DIST.	understand problems and to guide the solution of multi- step problems. <u>Standard 2.1.HS.F.5</u>
406	Identify and use bench hand tools.	NOTE: Refer to the Common Core Technical Standards booklet if you wish to add more Career Pathways to	 <u>Standard CC.3.5.9-10. D</u> <u>Standard CC.3.5.11-12.D</u> Determine the meaning of symbols, key terms, and other domain-specific words. 	OF WRITING- (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.C • Standard CC.3.611-12 C -Produce clear and coherent writing	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. <u>Standard 2.1.HS.F.6</u>
407	Identify & use a hand arbor and/or hydraulic press.	Career Fathways to meet the needs of your local Area.	 <u>Standard CC.3.5.9-10.E</u> <u>Standard CC.3.5.9-10.E</u> <u>Standard CC.3.5.11-12.E</u> Analyze the structure of the relationships among concepts in a text, etc. <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.11-12.F</u> Analyze the author's purpose in providing an explanation, describing a procedure and Analyze the structure of the relationships among concepts in a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10) <u>Standard CC.3.5.9-10.G</u> 	 appropriate to task, purpose, and audience. <u>Standard CC.3.6.9-10 D</u> <u>Standard CC.3.6.11-12.D</u> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. <u>Standard CC.3.6.9-10.E</u> <u>Standard CC.3.6.11-12.E.</u> Use technology, including the Internet, to produce, publish, and update 	Extend the knowledge of arithmetic operations and apply to complex numbers.

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
		Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). • <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. • <u>Standard CC.3.5.9-10. I</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 • <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. • <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. • <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding . RANGE OF READING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently.	individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) •Standard CC.3.6.9-10.F •Standard CC.3.6.9-10.F •Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.G</u> • <u>Standard CC.3.6.11-12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.6.11-12.H</u> . Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10.I</u> & • <u>Standard CC.3.5.9-10.I</u> Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiencesetc.	

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
500 (OPERATE DRILL PRESSES.				
501	Demonstrate safety precautions when using the drill press .	CAREER CLUSTER Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7	KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. A</u> • <u>Standard CC.3.5.11-12 A</u> Cite specific textual evidence,	TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.A</u> • <u>Standard CC.3.6.11-12.A</u>	MATH STANDARD AREA: <u>NUMBERS AND</u> <u>OPERATIONS</u> (FOR H.S.) Standard 2.1.HS.F.2
502	Select and demonstrate proper use of drill work holding devices.	CAREER PATHWAYS INCLUDE:	etc • <u>Standard CC.3.5.9-10 B</u> • <u>Standard CC.3.5.11-12. B</u> Determine the central ideas or complusions of a tort ato	Write arguments focused on discipline-specific content. • Standard CC.3.6.9-10.B • Standard CC.2.6.11	Apply properties of rational and irrational numbers to solve real world or mathematical problems.
503	Calculate speeds and feeds.	Maintenance, Installation and Repair Career Pathway (Choose Standards)	conclusions of a text; etc. • <u>Standard CC.3.5.9-10.C</u> • <u>Standard CC.3.5.11-12.C</u> Follow precisely a complex	<u>Standard CC.3.6.11-</u> <u>12.B</u> Write informative or explanatory texts, including the narration of technical	Standard 2.1.HS.F.4 Use units as a way to understand problems and to
504	Demonstrate the use of center drill.	1-2-3-4-5-6	multistep procedure, etc CRAFT & STRUCTURE (FOR GRADES 9-10-11-12)	processes, etc. PRODUCTION & DIST.	guide the solution of multi- step problems. Standard 2.1.HS.F.5
505	Select correct drill sizes for various application.	NOTE: Refer to the Common Core Technical Standards booklet if you	Standard CC.3.5.9-10. D Standard CC.3.5.11-12.D Determine the meaning of	OF WRITING- (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.C</u> • <u>Standard CC.3.611-12 C</u>	Choose a level of accuracy appropriate to limitations on measurement when reporting
506	Pre-drill & ream various size holes.	wish to add more Career Pathways to meet the needs of your	symbols, key terms, and other domain-specific words. • Standard CC.3.5.9-10.E	-Produce clear and coherent writing appropriate to task,	quantities. <u>Standard 2.1.HS.F.6</u> Extend the knowledge of
507	Demonstrate counter boring, spot facing & countersinking.	local Area.	• <u>Standard CC.3.5.11-12.E</u> Analyze the structure of the relationships among concepts in a text, etc.	purpose, and audience. • <u>Standard CC.3.6.9-10 D</u> • <u>Standard CC.3.6.11-12.D</u> Develop and strengthen	arithmetic operations and apply to complex numbers. STANDARD AREA: <u>GEOMETRY</u>
508	Pre-drill and tap holes.		Standard CC.3.5.9-10.F Standard CC.3.5.11-12.F Analyze the author's purpose in	writing as needed by planning, revising, editing, rewriting, or trying a new	Standard 2.3.HS.A.7 Apply trigonometric ratios to solve problems involving
509	Grind and use flat bottom drill.		providing an explanation, describing a procedure and Analyze the structure of the	approach, focusing on addressing what is most significant for a specific purpose and audience.	right triangles. <u>Standard 2.3.HS.A.3</u> Verify and apply geometric theorems as they relate to
510	Sharpen various size twist drills.		relationships among concepts in a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10) • <u>Standard CC.3.5.9-10.G</u>	 <u>Standard CC.3.6.9-10.E</u> <u>Standard CC.3.6.11-12.E.</u> Use technology, including the Internet, to produce, publish, and update 	Geometric figures. <u>Standard 2.3.HS.A.13</u> Analyze relationships between two-dimensional and three-dimensional

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
511 Select & demonstrate work holding devices.		Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). • <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. • <u>Standard CC.3.5.9-10. I</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 • <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. • <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. • <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding . RANGE OF READING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently.	individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.G</u> • <u>Standard CC.3.6.11-12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.5.9-10.1</u> <u>&</u> • <u>Standard CC.3.5.9-10.1</u> <u>&</u> • <u>Standard CC.3.5.9-10.1</u> <u>&</u> • <u>Standard CC.3.5.9-10.1</u> <u>&</u> • <u>Standard CC.3.5.9-10.1</u> <u>&</u> • <u>Standard CC.3.5.9-10.1</u> <u>&</u> • <u>Standard CC.3.5.11-12.1</u> . Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiencesetc.	objects

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
600	OPERATE GRINDING MACHINES.				
601	Demonstrate knowledge and application of OSHA safety rules using pedestal and surface grinding machines.	CAREER CLUSTER Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7	KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. A</u> • <u>Standard CC.3.5.11-12 A</u> Cite specific textual evidence, etc	TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.A</u> • <u>Standard CC.3.6.11-12.A</u> Write arguments focused	MATH STANDARD AREA: <u>NUMBERS AND</u> <u>OPERATIONS</u> (FOR H.S.) <u>Standard 2.1.HS.F.2</u>
602	Identify parts of pedestal grinder.	CAREER PATHWAYS INCLUDE:	 <u>Standard CC.3.5.9-10 B</u> <u>Standard CC.3.5.11-12. B</u> Determine the central ideas or 	on discipline-specific content. • <u>Standard CC.3.6.9-10.B</u>	Apply properties of rational and irrational numbers to solve real world or mathematical problems.
603	Demonstrate the proper way to test, mount and dress grinding wheels.	Maintenance, Installation and Repair Career Pathway (Choose Standards)	conclusions of a text; etc. • <u>Standard CC.3.5.9-10.C</u> • <u>Standard CC.3.5.11-12.C</u> Follow precisely a complex multistep procedure, etc	• <u>Standard CC.3.6.11-</u> <u>12.B</u> Write informative or explanatory texts, including the narration of technical	Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multi-
604	Grind and sharpen various lathe tools.	1-2-3-4-5-6 NOTE:	CRAFT & STRUCTURE (FOR GRADES 9-10-11-12)	processes, etc. PRODUCTION & DIST. OF WRITING- (FOR	step problems. <u>Standard 2.1.HS.F.5</u> Choose a level of accuracy
605	Grind 60 degree external and internal threading tools.	Refer to the Common Core Technical Standards booklet if you	<u>Standard CC.3.5.9-10. D</u> <u>Standard CC.3.5.11-12.D</u> Determine the meaning of symbols, key terms, and other	GRADES 9-10-11-12) • Standard CC.3.6.9-10.C • Standard CC.3.611-12 C - Produce clear and	appropriate to limitations on measurement when reporting quantities.
606	Grind single point radius and parting tool setters.	wish to add more Career Pathways to meet the needs of your local Area.	domain-specific words. • <u>Standard CC.3.5.9-10.E</u> • Standard CC.3.5.11-12.E	coherent writing appropriate to task, purpose, and audience.	Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and
607	Identify & demonstrate surface grinding safety procedures.		Analyze the structure of the relationships among concepts in a text, etc. • Standard CC.3.5.9-10.F	Standard CC.3.6.9-10 D Standard CC.3.6.11-12.D Develop and strengthen writing as needed by	apply to complex numbers. STANDARD AREA: <u>ALGEBRA</u> Standard 2.2.HS.C.9
608	Identify parts of surface grinder.		• <u>Standard CC.3.5.11-12.F</u> Analyze the author's purpose in providing an explanation, describing a procedure and	planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most	Prove the Pythagorean identity and use it to calculate trigonometric ratios.
609	Grind surfaces flat & parallel using a magnetic chuck.		Analyze the structure of the relationships among concepts in	significant for a specific purpose and audience. • Standard CC.3.6.9-10.E	STANDARD AREA: <u>GEOMETRY</u> Standard 2.3.HS.A.7
610	Grind work surfaces square with a vise or angle plate.		a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10) • <u>Standard CC.3.5.9-10.G</u>	• <u>Standard CC.3.6.11-12.E.</u> • <u>Standard CC.3.6.11-12.E.</u> Use technology, including the Internet, to produce, publish, and update	Apply trigonometric ratios to solve problems involving right triangles.

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
611 Grind precision angles using a sine plate or sine bar.		Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). • <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. • <u>Standard CC.3.5.9-10. J</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 • <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. • <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. • <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding . RANGE OF READING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently.	individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.F</u> <u>10.G.</u> • <u>Standard CC.3.6.11-12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.11-12.H.</u> Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10.I</u> & • <u>Standard CC.3.5.9-10.I</u> Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiencesetc.	Standard 2.3.HS.A.3 Verify and apply geometric theorems as they relate to Geometric figures. Standard 2.3.HS.A.13 Analyze relationships between two-dimensional and three-dimensional objects

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
700	OPERATE LATHES.				
701	Identify and demonstrate lathe safety procedures.	CAREER CLUSTER Manufacturing Career Cluster	KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. A</u> • Standard CC.3.5.11-12 A	TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.A	MATH STANDARD AREA: <u>NUMBERS AND</u> <u>OPERATIONS</u> (FOR H.S.)
702	Mount and true work piece in 3-jaw and 4-jaw chucks.	(Choose Standards) 1-2-3-4-5-6-7	Cite specific textual evidence, etc	• <u>Standard CC.3.6.11-12.A</u> Write arguments focused	Standard 2.1.HS.F.2 Apply properties of rational
703	Align centers.	CAREER PATHWAYS INCLUDE:	<u>Standard CC.3.5.9-10 B</u> <u>Standard CC.3.5.11-12. B</u> Determine the central ideas or conclusions of a text; etc.	on discipline-specific content. • <u>Standard CC.3.6.9-10.B</u> • <u>Standard CC.3.6.11-</u>	and irrational numbers to solve real world or mathematical problems.
704	Face work piece.	Maintenance, Installation and Repair Career Pathway	Standard CC.3.5.9-10.C Standard CC.3.5.11-12.C Follow precisely a complex	Write informative or explanatory texts, including	Standard 2.1.HS.F.4 Use units as a way to understand problems and to
705	Turn outside diameters.	(Choose Standards) 1-2-3-4-5-6	multistep procedure, etc CRAFT & STRUCTURE	the narration of technical processes, etc. PRODUCTION & DIST.	guide the solution of multi- step problems.
706	Turn inside and outside diameters to shoulders.	NOTE: Refer to the Common Core Technical	(FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. D</u> • <u>Standard CC.3.5.11-12.D</u>	OF WRITING- (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.C	Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on
707	Turn tapers.	Standards booklet if you wish to add more Career Pathways to	Determine the meaning of symbols, key terms, and other domain-specific words.	• <u>Standard CC.3.611-12 C</u> -Produce clear and coherent writing	measurement when reporting quantities. Standard 2.1.HS.F.6
708	Demonstrate knurling.	meet the needs of your local Area.	 <u>Standard CC.3.5.9-10.E</u> <u>Standard CC.3.5.11-12.E</u> Analyze the structure of the 	appropriate to task, purpose, and audience. • <u>Standard CC.3.6.9-10 D</u>	Extend the knowledge of arithmetic operations and apply to complex numbers. STANDARD AREA:
709	Part off & groove work piece.		relationships among concepts in a text, etc. • <u>Standard CC.3.5.9-10.F</u>	• <u>Standard CC.3.6.11-12.D</u> Develop and strengthen writing as needed by planning, revising, editing,	<u>GEOMETRY</u> Standard 2.3.HS.A.7 Apply trigonometric ratios
710	Cut internal and external threads.		• <u>Standard CC.3.5.11-12.F</u> Analyze the author's purpose in providing an explanation, describing a procedure and	rewriting, or trying a new approach, focusing on addressing what is most	to solve problems involving right triangles. Standard 2.3.HS.A.3
711	Demonstrate machine tapping for internal threads.		Analyze the structure of the relationships among concepts in a text.	significant for a specific purpose and audience. • Standard CC.3.6.9-10.E	Verify and apply geometric theorems as they relate to Geometric figures.
712	Demonstrate filing & polishing.		a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10) • Standard CC.3.5.9-10.G	• <u>Standard CC.3.6.11-12.E.</u> Use technology, including the Internet, to produce,	Standard 2.3.HS.A.13 Analyze relationships between two-dimensional
			<u></u>	publish, and update	and three-dimensional

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0	
 713 Demonstrate die thread cutting. 714 Demonstrate boring. 715 Demonstrate various tool holders and their correct uses. 716 Demonstrate the use of a collect attachment 717 Demonstrate the proper lathe maintenance procedure. 718 Demonstrate proper selection of attain various speeds and feeds. 719 Demonstrate proper gear selection for threading operations. 	Standards	Standard 3.5Translate quantitative ortechnical information expressedin a text into visual form (e.g., atable or chart).• Standard CC.3.5.9-10. HAssess the reasoning in a text tosupport the author's claim forsolving a technical problem.• Standard CC.3.5.9-10. ICompare and contrast findingspresented in a text to those fromother sources, etc.INTEGRATE KNOWLEDGE& IDEAS FOR GRADES 11-12. GIntegrate and evaluate multiplesources of information presentedin diverse formats to solve aproblem.• Standard CC.3.5.11-12. HEvaluate the hypotheses, data,analysis, and conclusions in atechnical text, verifying the datawhen possible.• Standard CC.3.5.11-12. ISynthesize info. from a range ofsources into a coherentunderstanding .RANGE OF READING (FORGRADES 9-10-11-12)• Standard CC.3.5.9-10.JStandard CC.3.5.9-10.JStandard CC.3.5.9-10.JStandard CC.3.5.9-10.JStandard CC.3.5.9-10.JStandard CC.3.5.9-10.JStandard CC.3.5.9-10.J <td colsp<="" th=""><th>individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.11-12.F</u> Conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.G</u> • <u>Standard CC.3.6.11- 12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.11- 12.H.</u> Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10.I</u> & • <u>Standard CC.3.5.11-12.I.</u> Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiencesetc.</th><th>objects</th></td>	<th>individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.11-12.F</u> Conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.G</u> • <u>Standard CC.3.6.11- 12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.11- 12.H.</u> Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10.I</u> & • <u>Standard CC.3.5.11-12.I.</u> Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiencesetc.</th> <th>objects</th>	individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.11-12.F</u> Conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.G</u> • <u>Standard CC.3.6.11- 12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.11- 12.H.</u> Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10.I</u> & • <u>Standard CC.3.5.11-12.I.</u> Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiencesetc.	objects

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
800	OPERATE MILLING MACHINES.				
801	Identify & demonstrate safety procedures for using a milling machine. Demonstrate trimming of milling head.	CAREER CLUSTER Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7	KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) • Standard CC.3.5.9-10. A • Standard CC.3.5.11-12 A Cite specific textual evidence, etc • Standard CC.3.5.9-10 B Standard CC.3.5.9-10 B	TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.A</u> • <u>Standard CC.3.6.11-12.A</u> Write arguments focused on discipline-specific	MATH STANDARD AREA: <u>NUMBERS AND</u> <u>OPERATIONS</u> (FOR H.S.) <u>Standard 2.1.HS.F.2</u> Apply properties of rational and irrational numbers to
803	Select, mount & indicate vise.	CAREER PATHWAYS INCLUDE: Maintenance, Installation and Repair Career Pathway	Standard CC.3.5.11-12. B Determine the central ideas or conclusions of a text; etc. Standard CC.3.5.9-10.C Standard CC.3.5.11-12.C	content. <u>Standard CC.3.6.9-10.B</u> <u>Standard CC.3.6.11-12.B</u> Write informative or	solve real world or mathematical problems. <u>Standard 2.1.HS.F.4</u> Use units as a way to
804	Machine angles.	(Choose Standards) 1-2-3-4-5-6	Follow precisely a complex multistep procedure, etc CRAFT & STRUCTURE	explanatory texts, including the narration of technical processes, etc. PRODUCTION & DIST.	understand problems and to guide the solution of multi- step problems.
805 806	Machine keyways. Select and demonstrate the use of face mills.	NOTE: Refer to the Common Core Technical Standards booklet if you	(FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. D</u> • <u>Standard CC.3.5.11-12.D</u> Determine the meaning of symbols, key terms, and other	OF WRITING- (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.C • Standard CC.3.611-12 C -Produce clear and	<u>Standard 2.1.HS.F.5</u> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.
807	Demonstrate the use of a digital indexing procedures.	wish to add more Career Pathways to meet the needs of your local Area.	domain-specific words. • <u>Standard CC.3.5.9-10.E</u> • <u>Standard CC.3.5.11-12.E</u>	 coherent writing appropriate to task, purpose, and audience. Standard CC.3.6.9-10 D 	Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers.
808	Demonstrate use of digital readout.		Analyze the structure of the relationships among concepts in a text, etc. • <u>Standard CC.3.5.9-10.F</u>	• <u>Standard CC.3.6.11-12.D</u> Develop and strengthen writing as needed by	MATH STANDARD AREA: ALGEBRAIC
809	Demonstrate use of edge finder.		Standard CC.3.5.11-12.F Analyze the author's purpose in providing an explanation,	planning, revising, editing, rewriting, or trying a new approach, focusing on	<u>CONCEPTS</u> Level "D" For High School: Algebra
810	Demonstrate climb and conventional milling.		describing a procedure and Analyze the structure of the relationships among concepts in	addressing what is most significant for a specific purpose and audience.	<u>CC Standard 2.2.HS.D.1</u> - Interpret the structure of expressions to represent a
811	Demonstrate use of adjustable boring head.		a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10) • <u>Standard CC.3.5.9-10.G</u>	• <u>Standard CC.3.6.9-10.E</u> • <u>Standard CC.3.6.11-12.E.</u> Use technology, including the Internet, to produce, publish, and update	 quantity in terms of its context. <u>CC Standard 2.2.HS.D.2 -</u> Write expressions in equivalent forms to solve

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
 812 Calculate speeds and feeds. 813 Install and remove cutting tool holding devices properly. 814 Select appropriate cutter for various milling operations. 815 Demonstrate how to "square" a part to prepare it for milling. 		Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). • <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. • <u>Standard CC.3.5.9-10. I</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 • <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. • <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. • <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding. RANGE OF READING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10.J</u> <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently.	individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.11-12.F</u> Conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.G</u> • <u>Standard CC.3.6.11-12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.5.9-10.I</u> <u>a</u> a b b c c c c c c c c c c	problems. <u>CC Standard 2.2.HS.D.3</u> - Extend the knowledge of arithmetic operations and apply to polynomials. <u>CC Standard HS.D.4</u> - Demonstrate the relationship between zeros and polynomials to make generalizations about functions and their graphs. <u>CC Standard 2.2.HS.D.5</u> - Use polynomial identities to solve problems. <u>CC Standard 2.2.HS.D.6</u> - Extend the knowledge of rational functions to rewrite in equivalent forms. <u>CC Standard 2.2.HS.D.7</u> - Create and graph equations or inequalities to describe numbers or relationships. <u>CC Standard 2.2.HS.D.8</u> - Apply inverse operations to solve equations or formulas for a given variable. <u>CC Standard 2.2.HS.D.9</u> - Use reasoning to solve equations and justify the solution method. <u>CC Standard 2.2.HS.D.10</u> - Represent, solve and interpret equations/inequalities and systems of equations and inequalities.

Secondary Competency Task List	Common Career	CCS Standards For Reading for Technical Subjects	CCS Standards For Writing for Technical	CCS Standards
With Unit and Task Numbers	Technical Core Standards	Standard 3.5	Subjects - Standard 3.6	For Mathematics
	Stanuarus	Standard 5.5		Standard 2.0
	•	1	<u>.</u>	
				MATH STANDARD
				AREA: 2.2 ALGEBRAIC
				<u>CONCEPTS</u>
				Level "C" For High
				School: Functions
				CC Standard 2.2.HS.C.1 -
				Use the concept and
				notation of functions to
				interpret and apply them in
				terms of their context.
				<u>CC Standard 2.2.HS.C.2</u> -
				Graph and analyze functions.
				CC Standard 2.2.HS.C.3 -
				Write functions or
				sequences that model
				relationships between two
				quantities.
				CC Standard 2.2.HS.C.4 -
				Interpret the effects
				transformations have on
				functions and find the inverses of functions.
				CC Standard2.2.HS.C.5 -
				Construct and compare
				linear, quadratic and
				exponential models to solve
				problems.
				CC Standard 2.2.HS.C.6 -
				Interpret functions in terms
				of the situation they model.
				CC Standard 2.2.HS.C7.
				- Apply radian measure of an angle and the unit circle
				to analyze the trigonometric
				functions.
				CC Standard 2.2.HS.C.8 -
				Choose trigonometric
				functions to model periodic
				phenomena and describe

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
				the properties of the graphs. <u>CC Standard 2.2.HS.C.9</u> - Prove the Pythagorean identity and use it to calculate trigonometric ratios. <u>MATH CURRICULUM</u> <u>AREA: 2.3 - <u>GEOMETRY</u> Level "A" For High School: Geometry <u>CC Standard 2.3.HS.A.1</u> - Use geometric figures and their properties to represent transformations in the plane. <u>CC Standard 2.3.HS.A.2</u> - Apply rigid transformations to determine and explain congruence. <u>CC Standard 2.3.HS.A.3</u> - Verify and apply geometric theorems as they relate to geometric figures. <u>CC Standard 2.3.HS.A.4</u> - Apply the concept of congruence to create geometric constructions. <u>CC Standard 2.3.HS.A.5</u> - Create justifications based on transformations to establish similarity of plane figures. <u>CC Standard 2.3.HS.A.6</u> - Verify and apply theorems involving similarity as they relate to plane figures. <u>CC Standard 2.3.HS.A.7</u> - Apply trigonometric ratios to solve problems involving right triangles.</u>

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
				CC Standard 2.3.HS.A.8 - Apply geometric theorems to verify properties of circles.CC Standard 2.3.HS.A.9 - Extend the concept of similarity to determine arc lengths and areas of sectors of circles.CC Standard 2.3.HS.A.10- Translate between the geometric description and the equation for a conic section.CC Standard 2.3.HS.A.10- Translate between the geometric description and the equation for a conic section.CC Standard 2.3.HS.A.11- Apply coordinate geometric theorems algebraically.CC Standard 2.3.HS.A.12- Explain volume formulas and use them to solve problems.CC Standard 2.3.HS.A.13- Analyze relationships between two-dimensional and three-dimensional objects.CC Standard 2.3.HS.A.13- Apply geometric concepts to model and solve real world problems.

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
900	OPERATE POWER SAWS.				
901	Identify & demonstrate safety procedures for operating vertical and horizontal power saws.	CAREER CLUSTER Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7	KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. A</u> • <u>Standard CC.3.5.11-12 A</u> Cite specific textual evidence, etc	TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.A</u> • <u>Standard CC.3.6.11-12.A</u> Write arguments focused on	MATH STANDARD AREA: <u>NUMBERS AND</u> <u>OPERATIONS</u> (FOR H.S.) <u>Standard 2.1.HS.F.2</u>
902	Demonstrate cutting and welding of saw blades.	CAREER PATHWAYS INCLUDE:	<u>Standard CC.3.5.9-10 B</u> <u>Standard CC.3.5.11-12. B</u> Determine the central ideas or	discipline-specific content. • <u>Standard CC.3.6.9-10.B</u> • Standard CC.3.6.11-12.B	Apply properties of rational and irrational numbers to solve real world or
903	Remove and replace saw blades.	Maintenance, Installation and Repair Career Pathway	 onclusions of a text; etc. <u>Standard CC.3.5.9-10.C</u> Standard CC.3.5.11-12.C 	Write informative or explanatory texts, including the narration of technical	mathematical problems. <u>Standard 2.1.HS.F.4</u> Use units as a way to
904	Demonstrate the three- tooth rule for selecting blades.	(Choose Standards) 1-2-3-4-5-6	Follow precisely a complex multistep procedure, etc CRAFT & STRUCTURE	processes, etc. PRODUCTION & DIST. OF WRITING- (FOR GRADES	understand problems and to guide the solution of multi- step problems.
905	Demonstrate accurate sawing.	NOTE:	(FOR GRADES 9-10-11-12)	9-10-11-12) • <u>Standard CC.3.6.9-10.C</u>	Standard 2.1.HS.F.5 Choose a level of accuracy
906	Select and set speeds for various sawing operations.	Refer to the Common Core Technical Standards booklet if you wish to add more Career Pathways to meet the needs of your local Area.	 <u>Standard CC.3.5.9-10. D</u> <u>Standard CC.3.5.11-12.D</u> Determine the meaning of symbols, key terms, and other domain-specific words. <u>Standard CC.3.5.9-10.E</u> <u>Standard CC.3.5.9-10.E</u> <u>Standard CC.3.5.11-12.E</u> Analyze the structure of the relationships among concepts in a text, etc. <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.11-12.F</u> Analyze the author's purpose in providing an explanation, describing a procedure and Analyze the structure of the relationships among concepts in a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10) 	 <u>Standard CC.3.6.11-12 C</u> <u>Standard CC.3.6.11-12 C</u> Produce clear and coherent writingappropriate to task, purpose, and audience. <u>Standard CC.3.6.9-10 D</u> <u>Standard CC.3.6.11-12.D</u> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. <u>Standard CC.3.6.9-10.E</u> <u>Standard CC.3.6.9-10.E</u> <u>Standard CC.3.6.9-10.E</u> <u>Standard CC.3.6.9-10.E</u> <u>Standard CC.3.6.9-10.E</u> <u>Standard CC.3.6.1-12.E.</u> Use technology, including the Internet, to produce, publish, and update individual or shared writing products. <u>RESEARCH (FOR</u> 	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers.

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
		 <u>Standard CC.3.5.9-10.G</u> Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. <u>Standard CC.3.5.9-10. I</u> Compare and contrast findings presented in a text to those from other sources, etc. <u>INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12</u> <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding. <u>RANGE OF READING (FOR GRADES 9-10-11-12)</u> <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently. 	GRADES 9-10-11-12) • Standard CC.3.6.9-10.F • Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem. • Standard CC.3.6.9-10.G. • Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • Standard CC.3.6.9-10.H. • Standard CC.3.6.9-10.H. • Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) • Standard CC.3.5.11-12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiencesetc.	

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
1000	MAINTAIN MACHINES AND TOOLS.				
1001	Demonstrate proper lubrication and maintenance of machinery. Clean and store hand tools, cutters, fixtures and	CAREER CLUSTER Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7	KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. A</u> • <u>Standard CC.3.5.11-12 A</u> Cite specific textual evidence, etc • Standard CC 3.5.0.10 P	TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.A</u> • <u>Standard CC.3.6.11-12.A</u> Write arguments focused on discipline-specific	MATH STANDARD AREA: <u>NUMBERS AND</u> <u>OPERATIONS</u> (FOR H.S.) <u>Standard 2.1.HS.F.2</u> Apply properties of rational
1002	attachments.	CAREER PATHWAYS INCLUDE:	<u>Standard CC.3.5.9-10 B</u> <u>Standard CC.3.5.11-12. B</u> Determine the central ideas or	content. <u>Standard CC.3.6.9-10.B</u> 	and irrational numbers to solve real world or mathematical problems.
1003	Inspect & adjust machine guards.	Maintenance, Installation and Repair Career Pathway (Choose Standards)	conclusions of a text; etc. • <u>Standard CC.3.5.9-10.C</u> • <u>Standard CC.3.5.11-12.C</u> Follow precisely a complex	• <u>Standard CC.3.6.11-</u> <u>12.B</u> Write informative or explanatory texts, including	Standard 2.1.HS.F.4 Use units as a way to understand problems and to
1004	Select, prepare & store coolants, cutting oils and compounds.	1-2-3-4-5-6	multistep procedure, etc CRAFT & STRUCTURE (FOR GRADES 9-10-11-12)	the narration of technical processes, etc. PRODUCTION & DIST. OF WRITING- (FOR	guide the solution of multi- step problems. Standard 2.1.HS.F.5
1005	Inspect, clean, & maintain a safe working area.	Refer to the Common Core Technical Standards booklet if you wish to add more Career Pathways to meet the needs of your local Area.	 <u>Standard CC.3.5.9-10. D</u> <u>Standard CC.3.5.9-10. D</u> <u>Standard CC.3.5.11-12.D</u> Determine the meaning of symbols, key terms, and other domain-specific words. <u>Standard CC.3.5.9-10.E</u> <u>Standard CC.3.5.9-10.E</u> <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.11-12.F</u> Analyze the author's purpose in providing an explanation, describing a procedure and Analyze the structure of the relationships among concepts in a text. INTEGRATE KNOWLEDGE <u>& IDEAS (FOR GRADES 9-10)</u> <u>Standard CC.3.5.9-10.G</u> 	GRADES 9-10-11-12) • Standard CC.3.6.9-10.C • Standard CC.3.6.11-12 C • Produce clear and coherent writing appropriate to task, purpose, and audience. • Standard CC.3.6.9-10 D • Standard CC.3.6.9-10 E • Standard CC.3.6.9-10.E • Standard CC.3.6.9-10.E	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. Standard 2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers.

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
		Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). • <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. • <u>Standard CC.3.5.9-10. I</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 • <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. • <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. • <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding . RANGE OF READING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently.	individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) •Standard CC.3.6.9-10.F •Standard CC.3.6.9-10.F •Standard CC.3.6.11-12.F Conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.G</u> • <u>Standard CC.3.6.11-12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.5.9-10.I</u> . <u>*</u> * <u>Standard CC.3.5.9-10.I</u> & • <u>Standard CC.3.5.9-10.I</u> &	

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
	Technical Core	for Technical Subjects	Writing for Technical Subjects - Standard 3.6 TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.A • Standard CC.3.6.9-10.A • Standard CC.3.6.9-10.A • Standard CC.3.6.9-10.B • Standard CC.3.6.9-10.B • Standard CC.3.6.9-10.B • Standard CC.3.6.9-10.B • Standard CC.3.6.11- 12.B Write informative or explanatory texts, including the narration of technical processes, etc. PRODUCTION & DIST. OF WRITING- (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.C • Standard CC.3.6.9-10.C • Standard CC.3.6.9-10.C • Standard CC.3.6.9-10.D • Standard CC.3.6.9-10.D	For Mathematics
		a text, etc. • <u>Standard CC.3.5.9-10.F</u> • <u>Standard CC.3.5.11-12.F</u> Analyze the author's purpose in providing an explanation, describing a procedure and Analyze the structure of the relationships among concepts in a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10) • <u>Standard CC.3.5.9-10.G</u>	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. • <u>Standard CC.3.6.9-10.E</u> • <u>Standard CC.3.6.11-12.E.</u> Use technology, including the Internet, to produce, publish, and update	

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
		Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). • <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. • <u>Standard CC.3.5.9-10. I</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 • <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. • <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. • <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding . RANGE OF READING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently.	individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) •Standard CC.3.6.9-10.F •Standard CC.3.6.9-10.F •Standard CC.3.6.9-10.F conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.G</u> • <u>Standard CC.3.6.11-12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.6.9-10.H</u> . • <u>Standard CC.3.6.11-12.H</u> . Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10.I</u> & • <u>Standard CC.3.5.9-10.I</u> &	

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
1200 USE MACHINISTS' REFERENCES AND CHARTS. 1201 Use the numeric-to- decimal equivalence chart 1202 Use machining speeds and feeds charts. 1203 Use thread cutting charts. 1204 Use the Machinery's Handbook to locate specific information. f or machining operations.	StandardsCAREER CLUSTER Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7CAREER PATHWAYS INCLUDE: Maintenance, Installation and Repair Career Pathway (Choose Standards) 1-2-3-4-5-6NOTE: Refer to the Common Core Technical Standards booklet if you wish to add more Career Pathways to meet the needs of your local Area.	KEY IDEAS/DETAILS (FOR GRADES 9-10-11-12) • Standard CC.3.5.9-10. A • Standard CC.3.5.9-10 B • Standard CC.3.5.9-10 C • Standard CC.3.5.9-10.C • Standard CC.3.5.9-10.D • Standard CC.3.5.9-10.E • Standard CC.3.5.9-10.E • Standard CC.3.5.9-10.E • Standard CC.3.5.9-10.F • Standard CC.3.5.9-10.F	Subjects - Standard 3.6 TEXT TYPES AND PURPOSE (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.A • Standard CC.3.6.9-10.A • Standard CC.3.6.9-10.A • Standard CC.3.6.9-10.B • Standard CC.3.6.11- 12.B Write informative or explanatory texts, including the narration of technical processes, etc. PRODUCTION & DIST. OF WRITING- (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.C • Standard CC.3.6.9-10.C • Standard CC.3.6.9-10.C • Standard CC.3.6.9-10.D • Standard CC.3.6.9-10.D • Standard CC.3.6.9-10 D • Standard CC.3.6.1-12.D Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific	Standard 2.0 MATH STANDARD AREA: NUMBERS AND OPERATIONS ADD OPERATIONS OPERATIONS OPERATIONS OPERATIONS OPERATIONS OPERATIONS OPERATIONS Mathematical problems and to OPERATIONS on measurement when reporting QUALTIESE Standard 2.1.HS.F.6 Extend the knowledge of Sta
		Analyze the structure of the relationships among concepts in a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10)	 by a specific purpose and audience. <u>Standard CC.3.6.9-10.E</u> <u>Standard CC.3.6.11-12.E.</u> Use technology, including 	

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
		 <u>Standard CC.3.5.9-10.G</u> Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. <u>Standard CC.3.5.9-10. J</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 • <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. • <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. • <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding. RANGE OF READING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently. 	the Internet, to produce, publish, and update individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.9-10.F</u> • <u>Standard CC.3.6.11-12.F</u> Conduct short and more sustained research to answer a question or solve a problem. • <u>Standard CC.3.6.9-10.F</u> <u>10.G.</u> • <u>Standard CC.3.6.11-12.G</u> Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.9-10.H.</u> • <u>Standard CC.3.6.11-12.H.</u> Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10.I</u> & • <u>Standard CC.3.5.9-10.I</u> &	

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
1300 1301 1302 1303 1304 1305 1306 1307	With Unit and Task Numbers READ AND DRAW BLUEPRINTS. Identify & explain orthographic views of machine parts, and projections. Demonstrate basic sketching and dimensioning techniques Identify & explain the alphabet of lines. Demonstrate knowledge of the rules for dimensioning machine parts, and how to apply "tolerances" and "fits" to dimensions. Calculate material sizes based upon job needs. Demonstrate knowledge of third angle projections. Identify & interpret geometric dimensioning and tolerancing.		•		
			a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10)	• <u>Standard CC.3.6.9-10.E</u> • <u>Standard CC.3.6.11-12.E.</u> Use technology, including the Internet, to produce,	

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
		 <u>Standard CC.3.5.9-10.G</u> Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. <u>Standard CC.3.5.9-10. I</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding. RANGE OF READING (FOR GRADES 9-10-11-12) <u>Standard CC.3.5.11-12.J</u> By the end of grades 9-10, AND 11-12, read and comprehend technical texts independently and proficiently. 	publish, and update individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) <u>Standard CC.3.6.9-10.F</u> <u>Standard CC.3.6.9-10.F</u> <u>Standard CC.3.6.11-12.F</u> Conduct short and more sustained research to answer a question or solve a problem. <u>Standard CC.3.6.9-10.F</u> <u>Standard CC.3.6.11-12.G</u> <u>Standard CC.3.6.11-12.G</u> <u>Gather relevant</u> information from multiple authoritative print and digital sources, following a standard format for citation. <u>Standard CC.3.6.9-10.H.</u> <u>Standard CC.3.6.9-10.H.</u> <u>Standard CC.3.6.11-12.H.</u> Draw evidence from informational texts to support analysis, reflection, and research. <u>RANGE OF WRITING</u> (FOR GRADES 9-10-11-12) <u>Standard CC.3.5.9-10.I</u> & <u>Standard CC.3.5.9-10.I</u> <u>Standard CC.3.5.9-10.I</u> <u>Standard CC.3.5.9-10.I</u> <u>Standard CC.3.5.9-10.I</u> <u>Standard CC.3.5.9-10.I</u> at the frames and shorter time frames for a range of tasks, purposes and audiencesetc. 	

	Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
1400	PROGRAM COMPUTER NUMERICAL CONTROLLED (CNC) MACHINES.	CAREER CLUSTER	KEY IDEAS/DETAILS	TEXT TYPES AND	MATH STANDARD AREA:
1401 1402	Explain and demonstrate CNC safety procedures. Demonstrate the basic use of "G" and "M" codes.	Manufacturing Career Cluster (Choose Standards) 1-2-3-4-5-6-7	(FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. A</u> • <u>Standard CC.3.5.11-12 A</u> Cite specific textual evidence,	PURPOSE (FOR GRADES 9-10-11-12) • Standard CC.3.6.9-10.A • Standard CC.3.6.11-	NUMBERS AND OPERATIONS (FOR H.S.) Standard 2.1.HS.F.2
1402	Demonstrate the basic use of G and M codes.	CAREER PATHWAYS INCLUDE: Maintenance,	etc • <u>Standard CC.3.5.9-10 B</u> • <u>Standard CC.3.5.11-12. B</u> Determine the central ideas or conclusions of a text; etc.	12.A Write arguments focused on discipline-specific content. • Standard CC.3.6.9-	Apply properties of rational and irrational numbers to solve real world or mathematical problems.
1404	Identify and demonstrate the use of Cartesian & Polar coordinate systems.	Installation and Repair Career Pathway (Choose Standards) 1-2-3-4-5-6	Standard CC.3.5.9-10.C Standard CC.3.5.11-12.C Follow precisely a complex multistep procedure, etc CRAFT & STRUCTURE	10.B • Standard CC.3.6.11- 12.B Write informative or explanatory texts,	Standard 2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multi- step problems.
1405	Demonstrate absolute & incremental positioning.	NOTE: Refer to the Common Core Technical	(FOR GRADES 9-10-11-12) • <u>Standard CC.3.5.9-10. D</u> • <u>Standard CC.3.5.11-12.D</u>	including the narration of technical processes, etc. PRODUCTION & DIST. OF WRITING- (FOR	Standard 2.1.HS.F.5 Choose a level of accuracy appropriate to limitations on
1406	Demonstrate the "dry" or practice run of a CNC program before machining a part.	Standards booklet if you wish to add more Career Pathways to meet the needs of your	Determine the meaning of symbols, key terms, and other domain-specific words. • Standard CC.3.5.9-10.E	GRADES 9-10-11-12) • Standard CC.3.6.9-10.C • Standard CC.3.611-12 C	measurement when reporting quantities. <u>Standard 2.1.HS.F.6</u> Extend the knowledge of
1407	Identify and explain the advantages and disadvantages of CNC machining.	local Area.	• <u>Standard CC.3.5.11-12.E</u> Analyze the structure of the relationships among concepts in a text, etc.	-Produce clear and coherent writing appropriate to task, purpose, and audience.	arithmetic operations and apply to complex numbers. MATH STANDARD AREA:
1408	Calculate and apply machine feeds and speeds to CNC operations.		<u>Standard CC.3.5.9-10.F</u> <u>Standard CC.3.5.11-12.F</u> Analyze the author's purpose in providing an explanation, describing a procedure and	Standard CC.3.6.9-10 D Standard CC.3.6.11- <u>12.D</u> Develop and strengthen writing as needed by	ALGEBRAIC CONCEPTS Level "D" For High School: Algebra <u>CC Standard 2.2.HS.D.1</u> - Interpret the structure of
1409	Set zero and tool offsets for a part to be machined.		Analyze the structure of the relationships among concepts in a text. INTEGRATE KNOWLEDGE & IDEAS (FOR GRADES 9-10)	planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	expressions to represent a quantity in terms of its context. <u>CC Standard 2.2.HS.D.2 -</u> Write expressions in

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
 1410 Transfer data files to-and-from a CNC machine. 1411 Identify and demonstrate the use of MDI applications. 1412 Program and produce a part using linear and circular interpolation. 		 <u>Standard CC.3.5.9-10.G</u> Translate quantitative or technical information expressed in a text into visual form (e.g., a table or chart). <u>Standard CC.3.5.9-10. H</u> Assess the reasoning in a text to support the author's claim for solving a technical problem. <u>Standard CC.3.5.9-10. I</u> Compare and contrast findings presented in a text to those from other sources, etc. INTEGRATE KNOWLEDGE & IDEAS FOR GRADES 11-12 <u>Standard CC.3.5.11-12. G</u> Integrate and evaluate multiple sources of information presented in diverse formats to solve a problem. <u>Standard CC.3.5.11-12. H</u> Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible. <u>Standard CC.3.5.11-12. I</u> Synthesize info. from a range of sources into a coherent understanding. <u>RANGE OF READING (FOR GRADES 9-10.11-12)</u> <u>Standard CC.3.5.11-12.J</u> By the end of grades 9- 10, AND 11-12, read and comprehend technical texts independently and proficiently. 	 Standard CC.3.6.9-10.E Standard CC.3.6.11- 12.E. Use technology, including the Internet, to produce, publish, and update individual or shared writing products. RESEARCH (FOR GRADES 9-10-11-12) Standard CC.3.6.9-10.F Standard CC.3.6.11-12.G Gather relevant information from multiple authoritative print and digital sources, following a standard format for citation. Standard CC.3.6.9-10.H. Standard CC.3.6.11-12.H. Draw evidence from informational texts to support analysis, reflection, and research. RANGE OF WRITING (FOR GRADES 9-10-11-12) Standard CC.3.5.9-10.11 & & Standard CC.3.5.9-10.11 & Standard CC.3.5.9-10.11 & Standard CC.3.5.9-10.11 	equivalent forms to solve problems. <u>CC Standard 2.2.HS.D.3</u> - Extend the knowledge of arithmetic operations and apply to polynomials. <u>CC Standard HS.D.4</u> - Demonstrate the relationship between zeros and polynomials to make generalizations about functions and their graphs. <u>CC Standard 2.2.HS.D.5</u> - Use polynomial identities to solve problems. <u>CC Standard 2.2.HS.D.6</u> - Extend the knowledge of rational functions to rewrite in equivalent forms. <u>CC Standard 2.2.HS.D.7</u> - Create and graph equations or inequalities to describe numbers or relationships. <u>CC Standard 2.2.HS.D.8</u> - Apply inverse operations to solve equations or formulas for a given variable. <u>CC Standard 2.2.HS.D.9</u> - Use reasoning to solve equations and justify the solution method. <u>CC Standard 2.2.HS.D.10</u> - Represent, solve and interpret equations/inequalities and systems of equations and inequalities.

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
			12.I. Write routinely over extended time frames and shorter time frames for a range of tasks, purposes and audiencesetc.	MATH STANDARD AREA: 2.2 ALGEBRAIC CONCEPTS Level "C" For High School: Functions <u>CC Standard 2.2.HS.C.1</u> . Use the concept and notation of functions to interpret and apply them in terms of their context. <u>CC Standard 2.2.HS.C.2</u> - Graph and analyze functions. <u>CC Standard 2.2.HS.C.3</u> - Write functions or sequences that model relationships between two quantities. <u>CC Standard 2.2.HS.C.4</u> - Interpret the effects transformations have on functions and find the inverses of functions. <u>CC Standard 2.2.HS.C.5</u> - Construct and compare linear, quadratic and exponential models to solve problems. <u>CC Standard 2.2.HS.C.6</u> - Interpret functions in terms of the situation they model. <u>CC Standard 2.2.HS.C.7</u> - Apply radian measure of an angle and the unit circle to analyze the trigonometric functions. <u>CC Standard 2.2.HS.C.8</u> - Choose trigonometric functions to model periodic phenomena and describe the properties of the graphs. <u>CC Standard 2.2.HS.C.9</u> - Prove the Pythagorean

Secondary Competency Task List With Unit and Task Numbers	Common Career Technical Core Standards	CCS Standards For Reading for Technical Subjects Standard 3.5	CCS Standards For Writing for Technical Subjects - Standard 3.6	CCS Standards For Mathematics Standard 2.0
				identity and use it to
				calculate trigonometric
				ratios. MATH CURRICULUM
				AREA: 2.3 -
				GEOMETRY
				Level "A" For High
				School: Geometry CC Standard 2.3.HS.A.1 -
				Use geometric figures and
				their properties to represent
				transformations in the plane.
				<u>CC Standard 2.3.HS.A.2</u> - Apply rigid transformations
				to determine and explain
				congruence.
				<u>CC Standard 2.3.HS.A.3</u> - Verify and apply geometric
				theorems as they relate to
				geometric figures.
				CC Standard 2.3.HS.A.4 -
				Apply the concept of congruence to create
				geometric constructions.
				CC Standard 2.3.HS.A.5
				Create justifications based
				transformations to establish similarity of plane figures.
				CC Standard 2.3.HS.A.6
				Verify and apply theorems
				involving similarity as they relate to plane figures.
				CC Standard 2.3.HS.A.7
				Apply trigonometric ratios
				solve problems involving
				right triangles.
				<u>CC Standard 2.3.HS.A.8</u> - Apply geometric theorems
				verify properties of circles.
				CC Standard 2.3.HS.A.9

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				similarity to determine arc lengths and areas of sectors of circles. <u>CC Standard 2.3.HS.A.10</u> - Translate between the geometric description and the equation for a conic section. <u>CC Standard 2.3.HS.A.11</u> - Apply coordinate geometry to prove simple geometric theorems algebraically. <u>CC Standard 2.3.HS.A.12</u> - Explain volume formulas and use them to solve problems. <u>CC Standard 2.3.HS.A.13</u> - Analyze relationships between two-dimensional and three-dimensional objects. <u>CC Standard 2.3.HS.A.14</u> - Apply geometric concepts to model and solve real world problems.