

ENGINEERING IN MOTION

CURRICULUM/CONTENT AREA	COURSE LENGTH
<i>Applied Technology and Engineering</i>	<i>45 days</i>
GRADE LEVEL	DATE LAST REVIEWED
<i>7 & 8 grades</i>	<i>2022</i>
PREREQUISITE(s) if applicable	BOARD APPROVAL DATE
<i>None</i>	<i>11/15/2022</i>

PRIMARY RESOURCE if applicable

DESIRED RESULTS

COURSE DESCRIPTION AND PURPOSE

Engineering design is brought to life in this exciting course where students will design and create prototypes of real life machines. Students combine their creativity with a design thinking process to build some of the fastest, strongest and coolest vehicles, structures, and mechanisms.

ENDURING UNDERSTANDINGS

Students will understand that...

Creativity, innovation, and critical thinking are essential for success in a technologically advanced world.

The ability to communicate and collaborate with people with diverse backgrounds and perspectives is key to participation in a global economic society.

ESSENTIAL QUESTIONS

Students will keep considering...

Why is creativity and innovation important? How is creativity and innovation used in [name of career pathway]?

How do teams efficiently and effectively solve problems in an increasingly complex world?

What strategies and processes can I use to become a more effective creator, thinker and problem solver?

Why is communication and collaboration important? How do positive work behaviors and personal qualities impact communication and collaboration?

	<p>What is effective teamwork? What strategies can I use/teams use to work better together? How can perspectives and experiences of a diverse group develop innovative solutions to a given problem?</p>
<p>Career and technical education provides pathways to high-demand, high-wage career opportunities, and personal fulfillment.</p>	<p>Why is career and life readiness important? What jobs and careers are available to meet individual and societal needs locally, regionally, and nationally?</p>
	<p>How might technical knowledge and skills influence one's employability and advancement opportunities within various work settings?</p>
	<p>What are employability skills? How do I prepare myself for a career that is in demand now and in 5, 10, or 20 years from now?</p>

PRIORITY CAREER & TECHNICAL STANDARDS

Students will be skilled at...

Creativity, Critical Thinking, Communication and Collaboration
4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills.
 a: I develop effective resolutions for a given problem, decision or opportunity using available information.
 b: I develop and implement a resolution for a new situation using personal knowledge and experience.

Career Development
CD4: Students will identify and apply employability skills.
 a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable.
 b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job.
 c: I identify and exhibit traits for retaining employment.
 d: I develop positive relationships with others.

Information, Media, Technology
IMT1: Students will access, interpret and evaluate information from a variety of sources in order to inform and support premises, arguments, decisions, ideas and initiatives.
 a: I choose appropriate sources of data and information for a given purpose.
 b: I determine the relevance, validity, and timeliness of data and information.
 c: I select relevant information necessary for making decisions and solving problems
 d: I apply data and information to communicate ideas and create new opportunities.

PRIORITY CONTENT STANDARDS

Students will know...

Standard: BB1: Students will analyze the core concepts of technology.

Standard: ENG1: Students will analyze and demonstrate the attributes of design.

Standard: ENG3: Students will demonstrate and analyze the role of troubleshooting, research and development, invention and innovation and experimentation in problem solving.

Standard: ICT1: Students will analyze, select and use information and communication technologies.

Standard: MNF1: Students will be able to select and use manufacturing technologies.

Unit 1: The Design Process		
STAGE 1: Desired Unit Results What will students understand as a result of the unit?		STAGE 2: Assessment Evidence By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?
ESSENTIAL QUESTION (s) What thought-provoking questions will foster inquiry, understanding, and transfer of learning?		Success Criteria with Standards The criteria for evaluating performance on standards is constant.
What is effective teamwork? What strategies can I use/teams use to work better together? How can perspectives and experiences of a diverse group develop innovative solutions to a given problem?		CTE standards-based Rubric: Throughout the course, students and teachers use the rubric for communication of success criteria, reflection, goal setting, and feedback. In their portfolio/evidence journal, students will reflect on the essential questions through a quick write, constructed response.
Why is communication and collaboration important? How do positive work behaviors and personal qualities impact communication and collaboration?		
How do teams efficiently and effectively solve problems in an increasingly complex world?		
PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets		Performance Tasks Options/ Assessment Strategies by Standard Students may be given options to show their learning in varied ways.
Creativity, Critical Thinking, Communication and Collaboration 4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills.		
a: I develop effective resolutions for a given problem, decision or opportunity using available information.	4C2.a.5.m: I can analyze symptoms to identify the root cause of a problem. 4C2.a.7.m: I can identify problems that became worse due to poorly thought out or poorly informed solutions 4C2.a.7.m: I can identify problems that became worse due to poorly thought out or poorly informed solutions C2.a.8.m: I can explain how implementation of a solution or action may affect one or more corresponding systems. C2.a.9.m: I can explain how different resolutions may be appropriate under different circumstances. 4C2.a.10.m: I can explain the process for choosing an action or making a decision.	Students will use the Design Thinking Process to identify a problem or opportunity. Students will then ask questions and research answers using electronic and/or non-electronic sources. Students will identify criteria and constraints for their solution. Students will vet that research for validity and accuracy. Students will individually or as a group brainstorm solutions to the problem or opportunity and choose one to prototype and make sure they have met their criteria and constraints. Student will design/draw their solutions and build a prototype. Prototypes will be tested and modified. Final solutions will be presented.
b: I develop and implement a resolution for a new situation using personal knowledge and experience.	4C2.b.3.m: I can analyze problems to determine what past experiences might be related and relevant.	

	4C2.b.4.m: I can analyze a problem to determine how it relates to existing knowledge.	
Career Development		
CD4: Students will identify and apply employability skills.		
a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable.	CD4.a.4.m: I can demonstrate flexibility and willingness to learn new knowledge and skills.	Students will engage in a problem solving activity in a team setting. Teams will use aspects of the design thinking process to design and create a prototype to address a specific problem.
c: I identify and exhibit traits for retaining employment.	CD4.c.3.m: I can distinguish between appropriate behaviors in a social vs. professional setting.	
d: I develop positive relationships with others.	CD4.d.3.m: I can interact with others in a respectful and non-judgmental manner.	
	CD4.d.4.m: I can use cooperative behavior in helping peers accomplish goals and tasks.	
Information, Media, Technology		
IMT1: Students will access, interpret and evaluate information from a variety of sources in order to inform and support premises, arguments, decisions, ideas and initiatives.		
a: I choose appropriate sources of data and information for a given purpose.	IMT1.a.3.m: I can compare and contrast the benefits and drawbacks of various information sources.	Students will explore different sources to identify and develop useful solutions to a given problem.
b: I determine the relevance, validity and timeliness of data and information.	IMT1.b.5.m: I can demonstrate ability to gather information from electronic and non-electronic sources.	
	IMT1.b.6.m: I can analyze various sources of data and information for relevance, validity and timeliness.	
c: I select relevant information necessary for making decisions and solving problems	IMT1.c.3.m: I can evaluate the relevance and reliability of various sources of information.	
d: I apply data and information to communicate ideas and create new opportunities.	IMT1.d.4.m: I can incorporate information from multiple sources to communicate a new idea or support an argument.	
PRIORITY CONTENT STANDARDS & Learning Targets		Performance Tasks Options/ Assessment Strategies by Standard Students may be given options to show their learning in varied ways.

Standard: ENG1: Students will analyze and demonstrate the attributes of design.	I can identify a need, research and brainstorm solutions and build and test those solutions. ENG1.a.7.m: I can explain how the design process has many criteria which ultimately lead to a solution. ENG1.a.8.m: I understand requirements for a design are made up of criteria and constraints. ENG2.a.5.m: I can discuss the engineering design process involves defining a problem, generating ideas, selecting a solution, testing the solution(s), making the item, evaluating it and presenting the results.	Students will work in teams to research and develop possible solutions to a problem. Students will use the design thinking process to create a prototype to solve a problem. Teams will conduct testing and make revisions / modify their solutions to improve their designs.
Standard: ENG3: Students will demonstrate and analyze the role of troubleshooting, research and development, invention and innovation and experimentation in problem solving.	I can build ,test, and accurately measure results to improve a design.	
Standard: ICT1: Students will analyze, select and use information and communication technologies.	I can identify relevant and recent information to help design a solution.	
Standard: MNF1: Students will be able to select and use manufacturing technologies.	I can choose the proper tools, processes and machines to create my design.	

Stage 3: Learning Activities

A brief summary of the key learning activities- How will students build knowledge & develop skills? How will learning be relevant, accessible, and engaging? How will the learning unfold in a natural flow?

GUIDING UNIT QUESTIONS	STRATEGIES/ACTIVITIES	RESOURCES/MATERIALS
Using Costas Level of Thinking, what questions will hook and hold students so that they develop a deep understanding of the desired results? The guiding questions are more topic-specific to the particular unit. They guide the exploration of the essential questions and rigor of the standards. This may include questions that guide project based/ problem based learning	What learning strategies and experiences will authentically engage students so that they gain understanding the desired results? This includes strategies and activities that help learners acquire targeted knowledge and skills, make meaning of important ideas, and transfer their learning to new situations. Consider how the learning will be tailored and flexible to address the interests and learning styles of all students.	This includes an applicable textbooks, software, industry recognized certification software/tools, subscriptions (such asPLTW), etc.
1.How is a design process used to effectively develop a design solution that solves a problem or addresses a design opportunity?	explicit instruction in L.A.U.N.C.H. cycle (design thinking)	L.A.U.N.C.H. Design Thinking by John Spencer resources
2.Why is accurate measurement, precise dimensioning, and thorough documentation necessary for both mechanical dissection and creative problem solving?		Defined Learning/Defined STEM
3.Why is it important for an engineer to be aware of the criteria and the constraints when designing a project?		
4.Why are teams of people more successful than an individual when solving problems?		

5. Why is brainstorming, research, and testing important when creating, modifying, or improving a design solution?		
6. How are sketches used to document and communicate design ideas with accuracy?		

UNIT 2: SAFETY

STAGE 1: Desired Unit Results
What will students understand as a result of the unit?

STAGE 2: Assessment Evidence
*By what criteria will performances of understanding be assessed?
 Through what authentic performance tasks will students demonstrate
 the desired unit results?*

ESSENTIAL QUESTION (s)
What thought-provoking questions will foster inquiry, understanding, and transfer of learning?

Success Criteria with Standards
The criteria for evaluating performance on standards is constant.

What are employability skills? How do I prepare myself for a career that is in demand now and in 5, 10, or 20 years from now?

Sample Safety Tests linked below:

How might technical knowledge and skills influence one's employability and advancement opportunities within various work settings?

[General Shop Safety Test](#)
[Bandsaw Safety Test](#)
[Disc Sander Safety Test](#)
[Disc / Belt Sander Safety Test](#)
[Drill Press Safety Test](#)

PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets

Performance Tasks Options/ Assessment Strategies by Standard
Students may be given options to show their learning in varied ways.

Creativity, Critical Thinking, Communication and Collaboration

4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills.

a: I develop effective resolutions for a given problem, decision or opportunity using available information.

4C2.a.5.m: I can analyze symptoms to identify the root cause of a problem.

4C2.a.7.m: I can identify problems that became worse due to poorly thought out or poorly informed solutions

4C2.a.10.m: I can explain the process for choosing an action or making a decision.

Class discussions about safe and proper use of tools, equipment and machines. Demonstrations of safe and proper use of tools, equipment and machines. Written safety tests to demonstrate knowledge and understanding of safe procedures.

b: I develop and implement a resolution for a new situation using personal knowledge and experience.

4C2.b.3.m: I can analyze problems to determine what past experiences might be related and relevant.

4C2.b.4.m: I can analyze a problem to determine how it relates to existing knowledge.

Career Development

CD4: Students will identify and apply employability skills.

a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable.	CD4.a.4.m: I can demonstrate flexibility and willingness to learn new knowledge and skills.	<i>Class discussions about safe and proper use of tools, equipment and machines. Demonstrations of safe and proper use of tools, equipment and machines. Written safety tests to demonstrate knowledge and understanding of safe procedures.</i>
c: I identify and exhibit traits for retaining employment.	CD4.c.3.m: I can distinguish between appropriate behaviors in a social vs. professional setting.	

PRIORITY CONTENT STANDARDS & Learning Targets	Performance Tasks Options/ Assessment Strategies by Standard <i>Students may be given options to show their learning in varied ways.</i>
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Standard: MNF1: Students will be able to select and use manufacturing technologies.	<p><i>I can choose the proper tools, processes and machines to create my design.</i></p> <p><i>MNF1.a.4.m: I can discuss health and safety procedures in the workplace that keep workers safe.</i></p> <p><i>MNF1.a.5.m: I can use tools, materials and machines safely to diagnose, adjust and repair systems.</i></p>	<i>Students will participate in safety demonstrations which will include the safe and proper way to use tools, machines and equipment.</i>
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Stage 3: Learning Activities
<i>A brief summary of the key learning activities- How will students build knowledge & develop skills? How will learning be relevant, accessible, and engaging? How will the learning unfold in a natural flow?</i>

GUIDING UNIT QUESTIONS	STRATEGIES/ACTIVITIES	RESOURCES/MATERIALS
<i>Using Costas' Level of Thinking, what questions will hook and hold students so that they develop a deep understanding of the desired results? The guiding questions are more topic-specific to the particular unit. They guide the exploration of the essential questions and rigor of the standards. This may include questions that guide project based/ problem based learning</i>	<i>What learning strategies and experiences will authentically engage students so that they gain understanding the desired results? This includes strategies and activities that help learners acquire targeted knowledge and skills, make meaning of important ideas, and transfer their learning to new situations. Consider how the learning will be tailored and flexible to address the interests and learning styles of all students.</i>	<i>This includes an applicable textbooks, software, industry recognized certification software/tools, subscriptions (such asPLTW), etc.</i>
1.How is a design process used to effectively develop a design solution that solves a problem or addresses a design opportunity?	explicit instruction in L.A.U.N.C.H. cycle (design thinking)	L.A.U.N.C.H. Design Thinking by John Spencer resources
2.Why is accurate measurement, precise dimensioning, and thorough documentation necessary for both mechanical dissection and creative problem solving?		Defined Learning/Defined STEM
3.Why is it important for an engineer to be aware of the criteria and the constraints when designing a project?		
4.Why are teams of people more successful than an individual when solving problems?		

5. Why is brainstorming, research, and testing important when creating, modifying, or improving a design solution?		
6. How are sketches used to document and communicate design ideas with accuracy?		

UNIT 3: MOTION PROJECT		
STAGE 1: Desired Unit Results What will students understand as a result of the unit?		STAGE 2: Assessment Evidence By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?
ESSENTIAL QUESTION (s) What thought-provoking questions will foster inquiry, understanding, and transfer of learning?		Success Criteria with Standards The criteria for evaluating performance on standards is constant.
How might technical knowledge and skills influence one's employability and advancement opportunities within various work settings?		CTE standards-based Rubric: Throughout the course, students and teachers use the rubric for communication of success criteria, reflection, goal setting, and feedback. In their portfolio/evidence journal, students will reflect on the essential questions through a quick write, constructed response.
What are employability skills? How do I prepare myself for a career that is in demand now and in 5, 10, or 20 years from now?		
PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets		Performance Tasks Options/ Assessment Strategies by Standard Students may be given options to show their learning in varied ways.
Creativity, Critical Thinking, Communication and Collaboration 4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills.		
a: I develop effective resolutions for a given problem, decision or opportunity using available information.	4C2.a.6.m: I can develop multiple resolutions for a given problem, decision or opportunity. 4C2.a.7.m: I can identify problems that became worse due to poorly thought out or poorly informed solutions	Students will work to design, create and test a variety of projects like CO2 cars, rockets, mousetrap vehicles, hovercrafts, etc.
b: I develop and implement a resolution for a new situation using personal knowledge and experience.	4C2.b.3.m: I can analyze problems to determine what past experiences might be related and relevant. 4C2.b.4.m: I can analyze a problem to determine how it relates to existing knowledge.	
Career Development CD4: Students will identify and apply employability skills.		
a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable.	CD4.a.4.m: I can demonstrate flexibility and willingness to learn new knowledge and skills.	Students will gain knowledge of how to use machines, tools and equipment to design and create various projects. Students will work with each other to successfully complete projects.
c: I identify and exhibit traits for retaining employment.	CD4.c.3.m: I can distinguish between appropriate behaviors in a social vs. professional setting.	
d: I develop positive relationships with others.	CD4.d.3.m: I can interact with others in a respectful and non-judgmental manner.	
	CD4.d.4.m: I can use cooperative behavior in helping peers accomplish goals and tasks.	
Information, Media, Technology IMT1: Students will access, interpret and evaluate information from a variety of sources in order to inform and support premises, arguments, decisions, ideas and initiatives.		

<p>b: I determine the relevance, validity and timeliness of data and information.</p>	<p>IMT1.b.4.m: I can distinguish the differences between raw data and information.</p>	<p>Recording results of built models (ie. speed of CO2 car) - raw data. Information is how that data is used.</p>
<p>d: I apply data and information to communicate ideas and create new opportunities.</p>	<p>IMT1.b.5.m: I can demonstrate ability to gather information from electronic and non-electronic sources.</p> <p>IMT1.d.4.m: I can incorporate information from multiple sources to communicate a new idea.</p>	<p>Students will research designs to develop the best solution.</p>
<p>PRIORITY CONTENT STANDARDS & Learning Targets</p>		<p>Performance Tasks Options/ Assessment Strategies by Standard Students may be given options to show their learning in varied ways.</p>
<p>Standard: ENG1: Students will analyze and demonstrate the attributes of design.</p>	<p>I can use the design process to develop and build a model solution.</p> <p>ENG1.a.7.m: I can explain how the design process has many criteria which ultimately lead to a solution.</p> <p>ENG1.a.8.m: I understand requirements for a design are made up of criteria and constraints.</p>	<p>Students will journal their process and experience as they progress through their project(s). Or, students may reflect on their projects upon completion of them.</p>
<p>Standard: MNF1: Students will be able to select and use manufacturing technologies.</p>	<p>I can safely select and use tools, materials and processes to aid in design implementation.</p> <p>MNF1.a.5.m: I can use tools, materials and machines safely</p>	<p>Pass appropriate machine tests, use machines safely, choose the right tools for the job.</p>
<p>SUPPORTING STANDARDS AND LEARNING TARGETS</p>		<p>Performance Tasks Options/ Assessment Strategies by Standard Students may be given options to show their learning in varied ways.</p>
<p>enter supporting standards here, add more rows as needed</p>	<p>ENG2.b.3.m: Modeling, testing, evaluating and modifying are used to transform ideas into practical solutions.</p> <p>ENG2.a.4.m:I can examine how brainstorming is an individual or group design process step used to generate ideas to solve a problem.</p>	
<p style="text-align: center;">Stage 3: Learning Activities</p> <p>A brief summary of the key learning activities- How will students build knowledge & develop skills? How will learning be relevant, accessible, and engaging? How will the learning unfold in a natural flow?</p>		
<p>GUIDING UNIT QUESTIONS Using Costas Level of Thinking, what questions will hook and hold students so that they develop a deep understanding of the desired results? The guiding questions are more topic-specific to the particular unit. They guide the exploration of the essential questions and rigor of the standards. This may include questions that guide project based/ problem based learning</p>	<p>STRATEGIES/ACTIVITIES What learning strategies and experiences will authentically engage students so that they gain understanding the desired results? This includes strategies and activities that help learners acquire targeted knowledge and skills, make meaning of important ideas, and transfer their learning to new situations. Consider how the learning will be tailored and flexible to address the interests and learning styles of all students.</p>	<p>RESOURCES/MATERIALS This includes an applicable textbooks, software, industry recognized certification software/tools, subscriptions (such asPLTW), etc.</p>

1.How is a design process used to effectively develop a design solution that solves a problem or addresses a design opportunity?	explicit instruction in L.A.U.N.C.H. cycle (design thinking)	L.A.U.N.C.H. Design Thinking by John Spencer resources
2.Why is accurate measurement, precise dimensioning, and thorough documentation necessary for both mechanical dissection and creative problem solving?		Defined Learning/Defined STEM
3.Why is it important for an engineer to be aware of the criteria and the constraints when designing a project?		
4.Why are teams of people more successful than an individual when solving problems?		
5.Why is brainstorming, research, and testing important when creating, modifying, or improving a design solution?		
6.How are sketches used to document and communicate design ideas with accuracy?		

UNIT 3: CAREERS IN ENGINEERING

STAGE 1: Desired Unit Results <i>What will students understand as a result of the unit?</i>		STAGE 2: Assessment Evidence <i>By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?</i>
ESSENTIAL QUESTION (s) <i>What thought-provoking questions will foster inquiry, understanding, and transfer of learning?</i>		Success Criteria with Standards <i>The criteria for evaluating performance on standards is constant.</i>
Why is creativity and innovation important? How is creativity and innovation used in Iname of career pathway?		<i>Career Presentation Rubric (sample), add citation aspect, group aspect, entrepreneurial aspect.</i>
Why is career and life readiness important? What jobs and careers are available to meet individual and societal needs locally, regionally, and nationally?		
PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets		Performance Tasks Options/ Assessment Strategies by Standard <i>Students may be given options to show their learning in varied ways.</i>
Career Development		
CD4: Students will identify and apply employability skills.		
a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable.	CD4.a.3.m: I can demonstrate selfdiscipline, self-worth, positive attitude and integrity.	<i>Identify and practice "soft skills".</i>
	CD4.a.4.m: I can demonstrate flexibility and willingness to learn new knowledge and skills.	<i>Be able to identify what skills/knowledge a career needs and plan on how to obtain that skill.</i>
	CD4.a.5.m: I can identify positive workqualities typically desired in each of the career cluster's pathways.	<i>Soft Skills and knowledge base</i>
b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job.	CD4.b.2.m: I can identify the components of a job description.	<i>See Presentation Rubric</i>
	CD4.b.3.m: I can use technology to assist in career exploration and jobseeking activities.	<i>Effective and efficient use of allotted research time in class.</i>
	CD4.b.4.m: I can compare and contrast personal attributes with employment needs and trends.	<i>Sample Career Test</i>
c: I identify and exhibit traits for retaining employment.	CD4.c.2.m: I can demonstrate the behavior and etiquette appropriate to interactions with adults.	<i>I have demonstrated safe and respectful behaviors in the classroom setting.</i>
	CD4.c.3.m: I can distinguish between appropriate behaviors in a social vs. professional setting.	<i>I have demonstrated safe and respectful behaviors in the classroom setting.</i>
d: I develop positive relationships with others.	CD4.d.3.m: I can interact with others in a respectful and non-judgmental manner.	<i>Formative/informal in class assessment</i>
	CD4.d.4.m: I can use cooperative behavior in helping peers accomplish goals and tasks.	<i>Formative/informal in class assessment</i>
PRIORITY CONTENT STANDARDS & Learning Targets		Performance Tasks Options/ Assessment Strategies by Standard <i>Students may be given options to show their learning in varied ways.</i>

Priority Standards	Unit 1	Unit 2	Unit 3
<p>Creativity, Critical Thinking, Communication and Collaboration 4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills. a: I develop effective resolutions for a given problem, decision or opportunity using available information. b: I develop and implement a resolution for a new situation using personal knowledge and experience.</p>	X	X	
<p>Career Development CD4: Students will identify and apply employability skills. a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable. b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. c: I identify and exhibit traits for retaining employment. d: I develop positive relationships with others.</p>	X	X	X
<p>Information, Media, Technology IMT1: Students will access, interpret and evaluate information from a variety of sources in order to inform and support premises, arguments, decisions, ideas and initiatives. a: I choose appropriate sources of data and information for a given purpose. b: I determine the relevance, validity and timeliness of data and information. c: I select relevant information necessary for making decisions and solving problems d: I apply data and information to communicate ideas and create new opportunities.</p>	X		
<p>Standard: BB1: Students will analyze the core concepts of technology.</p>	X		
<p>Standard: ENG1: Students will analyze and demonstrate the attributes of design.</p>	X		
<p>Standard: ENG3: Students will demonstrate and analyze the role of troubleshooting, research and development, invention and innovation and experimentation in problem solving.</p>	X		

Standard: ICT1: Students will analyze, select and use information and communication technologies.	X		X
Standard: MNF1: Students will be able to select and use manufacturing technologies.	X	X	