| *BUILDING CONSTRUCTION AND BASIC CARPENTRY THEORY 2* | |
|---|---|
| CURRICULUM/CONTENT AREA | COURSE LENGTH |
| *Applied & Technical Education (ATE)* | *9 weeks* |
| GRADE LEVEL | DATE LAST REVIEWED |
| *9-12* | *2023* |
| PREREQUISITE(s) *if applicable* | BOARD APPROVAL DATE |
| *Building Construction and Basic Carpentry Theory 1* | *09/10/2024* |
| PRIMARY RESOURCE *if applicable* | |
| | |

| DESIRED RESULTS | |
|---|---|
| COURSE DESCRIPTION AND PURPOSE | |
| *This advanced construction course will allow students interested in a possible career in the building trades to further their knowledge and skills. Advanced building materials, components, methods, and sequences used in esidential and commercial construction are explored. Students will build upon the skills learned in Building Construction One and related trades along with an overview of extensive career opportunities available. This course will delve deeper into the mechanicals and finishing required in home construction. including practical experience with the systems involved in residential construction including carpentry, electrical, plumbing and more. Emphasis is placed on safety and the proper use of both hand and power tools.* | |
| ENDURING UNDERSTANDINGS<br>*Students will understand that...* | ESSENTIAL QUESTIONS<br>*Students will keep considering...* |
| Creativity, innovation, and critical thinking are essential for success in a technologically advanced world. | 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? |
| The ability to communicate and collaborate with people with diverse backgrounds and perspectives is key to participation in a global economic society. | Why is communication and collaboration important? How do positive work behaviors and personal qualities impact communication and collaboration? |

| | |
|---|---|
| | 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? |
| Career and technical education provides pathways to high-demand, high-wage career opportunities, and personal fulfillment. | Why is career and life readiness important? What jobs and careers are available to meet individual and societal needs locally, regionally, and nationally? |
| | How might technical knowledge and skills influence one's employability and advancement opportunities within various work settings? |
| | 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**
*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. |

| Potential INDUSTRY-RECOGNIZED CREDENTIALS (IRCs) Opportunties associated with the course | Potential WORK BASED LEARNING (WBL) opportunities associated with the course |
|---|---|
| | |
| | |
| | |
| Potential DUAL CREDIT Opportunties associated with the course | |
| | |
| | |

| *Unit 1 Measuring Systems* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*The criteria for evaluating performance on standards is constant.* |
| *What strategies and processes can I use to become a more effective creator, thinker and problem solver?* | | CTE standards-based Rubric: Throughout course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| **PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | *Students will demonstrate their skills learned in class through a series of drawings and presentations to be evaluated by a rubric* |
| | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| | C2.a.16.h: I can defend an action taken or a decision implemented. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | *Students will demonstrate their critical thinking skills learned in class through a series of drawings and presentations to be evaluated by a rubric* |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status. | *Students will demonstrate their critical thinking skills learned in class through a series of drawings and presentations to be evaluated by a rubric* |
| | CD4.a.7.h: I can assess how flexibility and willingness to learn new knowledge and skills affect employment status. | |
| | CD4.a.8.h: I can apply communication strategies when adapting to a culturally diverse environment. | |
| | CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. | CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |

| | | |
|---|---|---|
| **Information, Media, Technology**<br>**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.** | | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | *Students will demonstrate their critical thinking skills learned in class through a series of drawings and presentations to be evaluated by a rubric* |
| d: I apply data and information to communicate ideas and create new opportunities. | IMT1.d.6.h: I can defend a proposal for a new product or service based on data and information analysis. | |
| PRIORITY CONTENT STANDARDS & Learning Targets | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | *BB1.b.5.h: I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | *MNF1.a.9.h: I can select and apply the appropriate units and scales for situations involving measurement.* | |
| SUPPORTING STANDARDS AND LEARNING TARGETS | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| *Standard: AC1: Students will be able to select and use architecture and construction technologies.* | *AC1.b: I can apply measurement systems in the planning and layout process used in the residential construction industry.* | |
| **Stage 3: Learning Activities**<br>*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 unforld in a natural flow?* | | |
| **GUIDING UNIT QUESTIONS**<br>*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* | **STRATEGIES/ACTIVITIES**<br>*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.* | **RESOURCES/MATERIALS**<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
| What is the appropriate unit of measurement? | Pretest, Practice, Post Test, and observation | Tape measure, Ruler, architectural scale |
| What is the appropriate tool needed to measure? | | Chromebook |
| | | Internet Access |

| *Unit 2 Planning and Design* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*The criteria for evaluating performance on standards is constant.* |
| Why is communication and collaboration important? How do positive work behaviors and personal qualities impact communication and collaboration? | | CTE standards-based Rubric: Throughout course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| **PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | *Students will demonstrate their skills learned in class through a series of drawings and presentations to be evaluated by a rubric* |
| | 4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | *Students will demonstrate their critical thinking skills learned in class through a series of drawings and presentations to be evaluated by a rubric* |
| **Career Development**<br>**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.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | *Students will demonstrate their critical thinking skills learned in class through a series of drawings and presentations to be evaluated by a rubric* |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |
| **Information, Media, Technology**<br>**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.** | | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | *Students will demonstrate their critical thinking skills learned in class through a series of drawings and presentations to be evaluated by a rubric* |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | |

| | | |
|---|---|---|
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | **ENG1.a.12.h:** Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other. | |
| **Standard: ENG3:** Students will demonstrate and analyze the role of troubleshooting, research and development, invention and innovation and experimentation in problem solving. | **ENG3.a.5.h:** I can explain technological problems must be researched before they can be solved. | Students will demonstrate their skills learned in class by writing procedures, creating Bill of Materials, sketching/designing Layouts. |
| **Standard: ICT1:** Students will analyze, select and use information and communication technologies. | **ICT1.c.9.h:** I can generate an authentic graphic Communication example. | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| SUPPORTING STANDARDS AND LEARNING TARGETS | | **Performance Tasks Options/ Assessment Strategies by Standard** *Students may be given options to show their learning in varied ways.* |
| Standard: AC1: Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | |
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). | |
| **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 unforld in a natural flow?* | | |
| **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* | **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.* | **RESOURCES/MATERIALS** *This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
| how can planning help in the creation and design of manufactured items | calculate material costs and project costs - Bill of Materials | Rulers, Scales and tape measures |
| how is the design proces used as a communication tool | Design parts and create sketches of exisiting parts/projects | Spreadsheets |
| | create a procedure for work | Internet |
| What drawings are included in a building construction project and why? | daily journal or log to record work completed | Graph paper |
| | | Other classroom supplies |

<table>
<tr><th colspan="3">Unit 3 Residential and Commercial Construction Technologies and Materials</th></tr>
<tr><th colspan="2">STAGE 1: Desired Unit Results<br>What will students understand as a result of the unit?</th><th>STAGE 2: Assessment Evidence<br>By what criteria will performances of understanding be assessed?<br>Through what authentic performance tasks will students demonstrate the desired unit results?</th></tr>
<tr><td colspan="2">ESSENTIAL QUESTION (s)<br>What thought-provoking questions will foster inquiry, understanding, and transfer of learning?</td><td>Success Criteria with Standards<br>The criteria for evaluating performance on standards is constant.</td></tr>
<tr><td colspan="2">What is the the impact of new technologies, both in materials, tools and processes on the construction industry?</td><td rowspan="3">CTE standards-based Rubric: Throughout course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class.</td></tr>
<tr><td colspan="2">When solving a problem, how can one be reasonably sure that the BEST solution possible has been created?</td></tr>
<tr><td colspan="2">How do architects, Engineer and Trades people use applied math and science to create solutions to structural design challenges?</td></tr>
<tr><td colspan="2">PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets</td><td>Performance Tasks Options/ Assessment Strategies by Standard<br>Students may be given options to show their learning in varied ways.</td></tr>
<tr><td colspan="2">Creativity, Critical Thinking, Communication and Collaboration<br>4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills.</td><td></td></tr>
<tr><td rowspan="7">a: I develop effective resolutions for a given problem, decision or opportunity using available information.</td><td>4C2.a.11.h: I can determine the information needed to address an identified problem.</td><td rowspan="10">Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric.</td></tr>
<tr><td>4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation.</td></tr>
<tr><td>4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative.</td></tr>
<tr><td>4C2.a.14.h: I can analyze the impact of a decision using a systems thinking model.</td></tr>
<tr><td>4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria.</td></tr>
<tr><td>C2.a.16.h: I can defend an action taken or a decision implemented.</td></tr>
<tr><td rowspan="2">b: I develop and implement a resolution for a new situation using personal knowledge and experience.</td><td>4C2.b.5.h: I can apply past experience to develop a course of action for a new situation.</td></tr>
<tr><td>4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity.</td></tr>
<tr><td colspan="2">Career Development<br>CD4: Students will identify and apply employability skills.</td><td></td></tr>
<tr><td rowspan="3">a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable.</td><td>CD4.a.8.h: I can apply communication strategies when adapting to a culturally diverse environment.</td><td rowspan="5">Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric</td></tr>
<tr><td>CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways.</td></tr>
<tr><td>CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities.</td></tr>
<tr><td rowspan="2">c: I identify and exhibit traits for retaining employment.</td><td>CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability.</td></tr>
<tr><td>CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite.</td></tr>
</table>

| | | |
|---|---|---|
| | CD4.c.6.h: I can complete required employment forms and documentation. | |
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| | CD4.d.7.h: I can examine the skills required to enable students to successfully transition to postsecondary opportunities. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.8.h: I can compare and contrast validity of information from electronic and non-electronic sources. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| d: I apply data and information to communicate ideas and create new opportunities. | IMT1.d.6.h: I can defend a proposal for a new product or service based on data and information analysis. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | *BB1.a: Analyze and use technological systems.* | "Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric<br>" |
| | BB1.b: Analyze and use tools and materials. | |
| | BB1.f: Identify and analyze structures. | |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a: Analyze engineering design theory.* | |
| **Standard: ENG3:** Students will demonstrate and analyze the role of troubleshooting, research and development, invention and innovation and experimentation in problem solving. | *ENG3.a: Discuss the importance of the problem solving process.* | |
| **Standard: ICT1:** Students will analyze, select and use information and communication technologies. | *ICT1.b: Describe how communication is an ever evolving process.* | |
| | *ICT1.c: Analyze graphic communications in an ever increasingly technological world.* | |
| | *ICT1.d: Analyze the principles of effective printed, projected and multimedia communication in a variety of formats and contexts.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | *MFN1.b: Create and communicate alternative solutions.* | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |

| | | |
|---|---|---|
| Standard: AC1: Students will be able to select and use architecture and construction technologies. | AC1.g.4.e: List the many different professions required to complete a construction project. | *create a construction schedule or Gantt Chart for a project* |
| | AC1.g.2.e: Describe simple processes and materials that are used to construct a structure. | *Identify the best building method and give evidence of why it is the best* |
| | AC1: Students will be able to select and use architecture and construction technologies. | identify and relate to multiple careers in the construction industry |
| | AC1.a: Analyze construction requirements, materials, structures, techniques and maintenance. | identify and describe the basic systems required to construct a residential home |
| | AC1.a.1.e: Recognize that people live, work and go to school in buildings, which are of different types: houses, apartments, office buildings and schools. | create a chart distinguishing between the basic building types |
| | AC1.a.2.e: Identify types of temporary and permanent structures. | apply the various materials required to construct a basic wall section |
| | AC1.a.4.e: Identify multiple systems that are used in buildings. | |
| | AC1.a.5.m: Select designs for structures based on factors such as building codes and requirements, style, convenience, cost, climate, culture and function. | |
| | AC1.a.6.m: Explain the function of foundations and why structures rest on a foundation. | |
| | AC1.a.7.m: Discuss how modern communities are usually planned according to guidelines. | |
| | AC1.a.8.m: Identify a variety of materials and subsystems that buildings generally contain. | |
| | AC1.a.9.h: Assess how infrastructure is the underlying base or basic framework of a system. | |
| | AC1.a.10.h: Analyze how structures are constructed using a variety of processes and procedures. | |
| | AC1.a.11.h: The design of structures includes a number of requirements. | |
| | AC1.a.13.h: Explain how structures can include prefabricated materials. | |
| | AC1.g.6.m: Identify the common processes and materials used to construct a structure. | |
| | AC1.g.7.m: Describe the importance of placing and engineering the structure. | |
| | AC1.g.8.m: Recognize that many phases are required to complete a construction project. | |

**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 unforld in a natural flow?*

| | | |
|---|---|---|
| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |

| | | |
|---|---|---|
| How do building codes differ between residential and commercial building? | Research different building systems and the advantages and disadvantages of them | Computers and or chromebooks with access to the internet |
| What are the different systems used in building residential and commercial buildings? | Compare and contrast differences between residential and commercial building codes | Specific videos demonstrating residential and commercial building projects |
| What are the different phases of a construction project and who would be needed to complete that phase? | Create and Identify the different trades required to complete a project | |

<table>
<tr><th colspan="3">Unit 4 Employability/Safety</th></tr>
<tr><th colspan="2">STAGE 1: Desired Unit Results<br>What will students understand as a result of the unit?</th><th>STAGE 2: Assessment Evidence<br>By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?</th></tr>
<tr><td colspan="2">ESSENTIAL QUESTION (s)<br>What thought-provoking questions will foster inquiry, understanding, and transfer of learning?</td><td>Success Criteria with Standards<br>The criteria for evaluating performance on standards is constant.</td></tr>
<tr><td colspan="2">How might technical knowledge and skills influence one's employability and advancement opportunities within various work settings?</td><td rowspan="2">CTE standards-based Rubric: Throughout course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class.</td></tr>
<tr><td colspan="2">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?</td></tr>
<tr><td colspan="2">PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets</td><td>Performance Tasks Options/ Assessment Strategies by Standard<br>Students may be given options to show their learning in varied ways.</td></tr>
<tr><td colspan="2">Creativity, Critical Thinking, Communication and Collaboration<br>4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills.</td><td>CTE Rubric Successful completion of safety test, Safe return demonstration of all tools and equipment, and continuous demonstration of safe practices and uses of tools and equipment</td></tr>
<tr><td>a: I develop effective resolutions for a given problem, decision or opportunity using available information.</td><td>4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative.</td><td rowspan="2">Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab. These skills will be evaulated using a AT&E safety skills rubric</td></tr>
<tr><td>b: I develop and implement a resolution for a new situation using personal knowledge and experience.</td><td>4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity.</td></tr>
<tr><td colspan="2">Career Development<br>CD4: Students will identify and apply employability skills.</td><td></td></tr>
<tr><td rowspan="2">a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable.</td><td>CD4.a.9.h: I can use positive work qualities typically desired in each of the career cluster's pathways.</td><td rowspan="4">Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab. These skills will be evaulated using a AT&E safety skills rubric</td></tr>
<tr><td>CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities.</td></tr>
<tr><td rowspan="2">c: I identify and exhibit traits for retaining employment.</td><td>CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability.</td></tr>
<tr><td>CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite.</td></tr>
<tr><td colspan="2">PRIORITY CONTENT STANDARDS & Learning Targets</td><td>Performance Tasks Options/ Assessment Strategies by Standard<br>Students may be given options to show their learning in varied ways.</td></tr>
<tr><td rowspan="2">Standard: MNF1: Students will be able to select and use manufacturing technologies.</td><td>MNF1.a.7.h: I can identify safety and health protections and procedures that are critical to worker well-being.</td><td rowspan="2">Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab. These skills will be evaulated using a AT&E safety skills rubric</td></tr>
<tr><td>MNF1.a.8.h: I can use appropriate tools, materials, and machines to repair a malfunctioning system.</td></tr>
<tr><td colspan="3">Stage 3: Learning Activities<br>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 unforld in a natural flow?</td></tr>
</table>

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| anayze what kinds of skills are valuable to employers | paricipate in safety readings, demonstrations | various supplies, tools and equipment used in building construction trades |
| demonstrate work skills desired by future employers | students will reflect on their employability skills and class safety | |
| how does safety relate to a work enviroment | perform maintenance on equipment, tools and supplies | |
| The importance of and how to maintain and organize equipment, supplies and tools | Organize equipment tools and supplies | |
| | | |
| | | |
| | | |
| | | |
| | | |

| *Unit 5 Foundations and Footings / Concrete* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*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 course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| 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**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills.** | | CTE Rubric Successful completion of safety test, Safe return demonstration of all tools and equipment, and continuous demonstration of safe practices and uses of tools and equipment |
| a: I develop effective resolutions for a given problem, decision or opportunity using available information. | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab. These skills will be evaulated using a AT&E safety skills rubric |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.9.h: I can use positive work qualities typically desired in each of the career cluster's pathways. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab. These skills will be evaulated using a AT&E safety skills rubric |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab. These skills will be evaulated using a AT&E safety skills rubric |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| Standard: AC1: Students will be able to select and use architecture and construction technologies. | AC1.g.10.h: Demonstrate proficiency in the practical application of the processes and materials (e.g., structural, electrical, mechanical, finish) appropriate to architectural design and construction. | measure linear distances with accuracy using a scale, ruler or tape and report the measurement using an appropriate level of precision. |
| | AC1.g.1.e: Discuss how structures are based on drawings and completed according to schedules and timelines. | layout, frame and construct a masonry footing |

| | | |
|---|---|---|
| | AC1.g.2.e: Describe simple processes and materials that are used to construct a structure. | correctly identify the necessary components of a masonry footing and foundation system |
| | AC1.g.3.e: Identify that many factors can affect the location and type of structure. | lay multiple courses of concrete block to construct a house foundation |
| | AC1.g.4.e: List the many different professions required to complete a construction project. | calculate, layout, frame and pour flat concrete work typical of a floor, patio, etc. |
| | AC1.g.5.m: Create a drawing and completion schedule for a simple project. | |
| | AC1.g.6.m: Identify the common processes and materials used to construct a structure. | |
| | AC1.g.7.m: Describe the importance of placing and engineering the structure. | |
| | AC1.g.8.m: Recognize that many phases are required to complete a construction project. | |
| | AC1.g.9.h: Develop building plans and schedules by using processes common to residential and commercial construction. | |
| | AC1.g.10.h: Demonstrate proficiency in the practical application of the processes and materials (e.g., structural, electrical, mechanical, finish) appropriate to architectural design and construction. | |
| | AC1.g.11.h: Prepare the site layout utilizing common surveying equipment and/or create a site plan. | |
| | AC1.g.12.h: Analyze the phases of residential and commercial construction. | |
| | AC1.e.15.h: Solve common residential construction problems such as framing, plumbing and electrical, by using the official codes adopted by the state and local building standards commission. | |
| | AC1.g: Demonstrate the variety of building phases, systems and techniques used in architecture and construction. | |
| | AC1.g.4.e: List the many different professions required to complete a construction project. | |
| | | |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| What is Cement? | Cement and Concrete Checkpoint | cement |
| What is concrete? | Mix and create concrete Footing | concrete |
| What is the difference between Concrete and Cement? | attach 4x4 to footing | tools for concrete like mixing pan, shovels, trowels and more |
| How does cement and concrete work? | | |

| *Unit 6 Framing and Framing Technology* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*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 course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback. |
| 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? | | Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| **PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | 4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation. | |
| | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. | CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |

| | | |
|---|---|---|
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | **BB1.b.5.h:** I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a.12.h: Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| | **MNF1.e.8.h:** I can use a manufacturing system to produce a product. | |
| | **MNF1.f.7.h:** I can recognize servicing keeps products in good operating condition. | |
| | **MNF1.f.8.h:** I can recognize technologies provide a means for humans to alter or modify materials and to produce products. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: AC1:** Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| | **AC1.a.13.h:** I can explain how structures can include prefabricated materials. | |
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). | |

| | |
|---|---|
| Standard AC1.c: Demonstrate the safe and appropriate use of hand tools common to the residential and commercial construction industry. | **AC1.c.5.h:** I can demonstrate and use the common hand tools of the trade safely and properly. |
| | **AC1.c.6.h:** I can maintain and care for hand tools used in residential and commercial construction. |
| Standard AC1.g: Demonstrate the variety of building phases, systems and techniques used in architecture and construction. | **AC1.g.12.h:** I can analyze the phases of residential and commercial construction. |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| What is a footing and foundation wall and what is the significants with them | Create a BOM | 4x8 sheets of 1/2" osb |
| Cement and Concrete and the makeup of each | Collect supplies needed for framing | Speed Square |
| What is the process used to layout top and bottom plates | Cut and Layout materials for framing and sheathing | 2x4x8 boards |
| What is the proper layout of studs in a wall | Joint frame together using industry standard joining techniques | miter saw |
| What is the procedure for jointing the wall parts together | Attach sheathing using industry standard joining techniques | table saw |
| How can you maximize supplies to minimize waste | checkpoint on residential framing techniques | hammer |
| What types of framing techiques are there and how do they work | Project cost calculations | 3 1/2" 16 penny nails |
| What are the advantages and disadvantages of different types of framing techniques | measuring, laying out and cutting Rafters | 2 1/2" 8 penny nails |
| What is the history of house framing? | measuring, laying out and cutting and assemblying Trusses | Tape measures |
| | | other assorted tools and equipment |
| What are different types of house framing? | | 2x6 boards |
| What are different types of supplies and materials are available? | | 4x4 boards |
| Why are there so many framing methods? | | additional fasteners |

| *Unit 7 Plumbing Rough and Finish* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*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 course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback. |
| 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? | | Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| **PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | 4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation. | |
| | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. | CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |

| | | |
|---|---|---|
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | **BB1.b.5.h:** I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a.12.h: Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| | **MNF1.e.8.h:** I can use a manufacturing system to produce a product. | |
| | **MNF1.f.7.h:** I can recognize servicing keeps products in good operating condition. | |
| | **MNF1.f.8.h:** I can recognize technologies provide a means for humans to alter or modify materials and to produce products. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: AC1:** Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| | **AC1.a.13.h:** I can explain how structures can include prefabricated materials. | |
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). | |

| | |
|---|---|
| Standard AC1.c: Demonstrate the safe and appropriate use of hand tools common to the residential and commercial construction industry. | **AC1.c.5.h:** I can demonstrate and use the common hand tools of the trade safely and properly. |
| | **AC1.c.6.h:** I can maintain and care for hand tools used in residential and commercial construction. |
| Standard AC1.e: Demonstrate project management procedures and processes as they occur in a construction project. | **AC1.e.13.h:** I can estimate materials from blueprints and specifications. |
| | **AC1.e.14.h:** I can explain the sequencing of events for specific construction projects. |
| | **AC1.e.15.h:** I can solve common residential construction problems such as framing, plumbing and electrical, by using the official codes adopted by the state and local building standards commission. |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| How does basic plumbing work | Create a BOM | DWV Pipe, 2" and 3" |
| What types of materials are used in plumbing | Collect supplies needed for installing the plumbing | PVC Pipe |
| What types and how are plumbing pipes joined together | Cut and dry fit materials for plumbing | Toilet Flange and P trap |
| What are the different systems involved in plumbing a house | Install and connect plumbing using industry standard techniques and materials | Pex Pipe |
| How to prep framing for rough plumbing, both pressurized water and DWV | checkpoint on residential plumbing | Joints to connect pipes |
| Why are there building codes for pluming systems within a building? | | Drill |
| What are some of the building codes for plumbing? | | Drill bit |
| What are the industry standard tools and materials used in plumbing? | | Garden hose connected to water source |
| How to identify and understand the difference between supply and DWV lines? | | Hose bib |
| What are the industry standards for connecting plumbing for supply and DWV lines? | | Valves for sink and toilet |
| | | 2 way on off hose valve |
| | | Pipe Cutter |
| | | Toilet and sink |
| | | Pex Removal Tool |
| | | Pipe Wrenches and other plumbing tools |
| | | Torch |
| | | Solder |
| | | Flux |

| | | |
|---|---|---|
| | | PVC Glue |
| | | PVC Primer |
| | | Thread Tape |
| | | Platform build from previous units |

| *Unit 8 Electrical and Electrical theory* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*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 course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback. |
| 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? | | Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| **PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | 4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation. | |
| | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. | CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |

| | | |
|---|---|---|
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | **BB1.b.5.h:** I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a.12.h: Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| | **MNF1.e.8.h:** I can use a manufacturing system to produce a product. | |
| | **MNF1.f.7.h:** I can recognize servicing keeps products in good operating condition. | |
| | **MNF1.f.8.h:** I can recognize technologies provide a means for humans to alter or modify materials and to produce products. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: AC1:** Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| | **AC1.a.13.h:** I can explain how structures can include prefabricated materials. | |
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). | |

| | |
|---|---|
| Standard AC1.c: Demonstrate the safe and appropriate use of hand tools common to the residential and commercial construction industry. | **AC1.c.5.h:** I can demonstrate and use the common hand tools of the trade safely and properly. |
| | **AC1.c.6.h:** I can maintain and care for hand tools used in residential and commercial construction. |
| Standard AC1.e: Demonstrate project management procedures and processes as they occur in a construction project. | **AC1.e.13.h:** I can estimate materials from blueprints and specifications. |
| | **AC1.e.14.h:** I can explain the sequencing of events for specific construction projects. |
| | **AC1.e.15.h:** I can solve common residential construction problems such as framing, plumbing and electrical, by using the official codes adopted by the state and local building standards commission. |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| How does basic Electrical work | Create a BOM | Electrical wire |
| What types of materials are used in electrical | Collect supplies needed for installing the electrical wiring | Electrical outlet |
| What types and how are houses wired | Install electrical boxes according to plans | Light switch |
| What are the different materials and steps in wiring a house | Cut and dry fit materials for electrical | Light fixture |
| How do switches, outlets and lights get wired | Install Electrical outlets following industry standards | Electrical Boxes |
| What is the difference between wiring in series or parallel | checkpoint on residential wiring | Electrical box for light |
| What codes need to be followed in electrical wiring | Wire electrical in series | Drill bit |
| What steps need to be completed to framing to prepare it for rough electrical | wire electrical in parallel | Drill |
| Why are there building codes for electrical systems within a building? | | Hammer |
| What are some of the building codes for electrical? | | Flat Bar |
| What are the industry standard tools and materials used in electrical systems? | | Wire Strippers |
| How to identify and understand the difference between different types of electrical wire? | | Heavy Pliers |
| What are the industry standards for connecting and wiring a house or commercial building? | | wiring nut |
| | | other assorted electrical tools and equipment |
| | | Platform build from previous units |

| *Unit 9 Mechanical Rough in and Finish* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*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 course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| 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**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | 4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation. | |
| | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. | CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |

| | | |
|---|---|---|
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | **BB1.b.5.h:** I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a.12.h: Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| | **MNF1.e.8.h:** I can use a manufacturing system to produce a product. | |
| | **MNF1.f.7.h:** I can recognize servicing keeps products in good operating condition. | |
| | **MNF1.f.8.h:** I can recognize technologies provide a means for humans to alter or modify materials and to produce products. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: AC1:** Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| | **AC1.a.13.h:** I can explain how structures can include prefabricated materials. | |
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). | |

| | |
|---|---|
| Standard AC1.c: Demonstrate the safe and appropriate use of hand tools common to the residential and commercial construction industry. | **AC1.c.5.h:** I can demonstrate and use the common hand tools of the trade safely and properly. |
| | **AC1.c.6.h:** I can maintain and care for hand tools used in residential and commercial construction. |
| Standard AC1.e: Demonstrate project management procedures and processes as they occur in a construction project. | **AC1.e.13.h:** I can estimate materials from blueprints and specifications. |
| | **AC1.e.14.h:** I can explain the sequencing of events for specific construction projects. |
| | **AC1.e.15.h:** I can solve common residential construction problems such as framing, plumbing and electrical, by using the official codes adopted by the state and local building standards commission. |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| What are the mechanicals of a building? | Create a BOM | chromebook or computer |
| How do the mechanicals work within a building? | Collect supplies needed | internet |
| What are the codes and standards for heating and air conditioning units within a building? | Mechanicals checkpoint | mechanicals supplies and equipment |
| What are the different materials and steps in the mechanics of a house? | mechanicals practice calculations | Platform build from previous units |
| What is the process of installing mechanics into a house? | mechanicals layout | |
| What are the different systems within the mechanicals of a house or building? | | |
| What are the standards used to calculate the sizes for different mechanical systems within a building or house? | | |

| *Unit 10 Stair Calculation and Build* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*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 course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| 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**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | 4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation. | |
| | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. | CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |

| | | |
|---|---|---|
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | **BB1.b.5.h:** I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a.12.h: Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| | **MNF1.e.8.h:** I can use a manufacturing system to produce a product. | |
| | **MNF1.f.7.h:** I can recognize servicing keeps products in good operating condition. | |
| | **MNF1.f.8.h:** I can recognize technologies provide a means for humans to alter or modify materials and to produce products. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: AC1:** Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| | **AC1.a.13.h:** I can explain how structures can include prefabricated materials. | |
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). | |

| | |
|---|---|
| Standard AC1.c: Demonstrate the safe and appropriate use of hand tools common to the residential and commercial construction industry. | **AC1.c.5.h:** I can demonstrate and use the common hand tools of the trade safely and properly. |
| | **AC1.c.6.h:** I can maintain and care for hand tools used in residential and commercial construction. |
| Standard AC1.e: Demonstrate project management procedures and processes as they occur in a construction project. | **AC1.e.13.h:** I can estimate materials from blueprints and specifications. |
| | **AC1.e.14.h:** I can explain the sequencing of events for specific construction projects. |
| | **AC1.e.15.h:** I can solve common residential construction problems such as framing, plumbing and electrical, by using the official codes adopted by the state and local building standards commission. |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| What are stair codes? | Create a BOM | chromebook or computer |
| What is the reason for so many codes on stairs? | Stair tread calculations practice | internet |
| Name the steps needed to complete to calculate stair treads. | Measure and layout stair treads | stair treads supplies and equipment |
| Identify different tools that can be used to cut stair treads | Cut and dry fit materials for stair treads | Platform build from previous units |
| How can a carpenters square be used to layout stair treads? | | |
| What codes are associated with stairs? | checkpoint on stairs and stair treads including building codes | |
| What are the biggest factors that lead to injuries on stairs? | | |
| How would you calculate, layout and cut a stair stringer? | | |
| What measurements would you need to calculate a stair stringer? | | |

| *Unit 11 Flooring* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*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 course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback. |
| 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? | | Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| **PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | 4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation. | |
| | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. | CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |

| | | |
|---|---|---|
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | **BB1.b.5.h:** I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a.12.h: Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| | **MNF1.e.8.h:** I can use a manufacturing system to produce a product. | |
| | **MNF1.f.7.h:** I can recognize servicing keeps products in good operating condition. | |
| | **MNF1.f.8.h:** I can recognize technologies provide a means for humans to alter or modify materials and to produce products. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: AC1:** Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| | **AC1.a.13.h:** I can explain how structures can include prefabricated materials. | |
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). | |

| | |
|---|---|
| Standard AC1.c: Demonstrate the safe and appropriate use of hand tools common to the residential and commercial construction industry. | **AC1.c.5.h:** I can demonstrate and use the common hand tools of the trade safely and properly. |
| | **AC1.c.6.h:** I can maintain and care for hand tools used in residential and commercial construction. |
| Standard AC1.e: Demonstrate project management procedures and processes as they occur in a construction project. | **AC1.e.13.h:** I can estimate materials from blueprints and specifications. |
| | **AC1.e.14.h:** I can explain the sequencing of events for specific construction projects. |
| | **AC1.e.15.h:** I can solve common residential construction problems such as framing, plumbing and electrical, by using the official codes adopted by the state and local building standards commission. |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| What are different types of floorings? | Create a BOM | wet saw for tile |
| What are the advantages and disadvantages of different types of flooring? | flooring calculation practice | tile |
| What factors should be taken into choosing a type of flooring? | Create a project cost sheet | sub floor |
| What are the steps of installing the different types of flooring? | | tile adhesive |
| What are different flooring types? | | grout |
| What factors will be used to help choose the best flooring type? | checkpoint on finished floors and different flooring | tiling tools and equipment like notched trowels, spacers, and more |
| What are industry standards for installing different flooring types? | | chromebook or computer |
| What tools and equipment are needed to install different tools and equipment? | | internet |
| | | Platform build from previous units |

| *Unit 12 Door and Window theory and installation* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*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 course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| 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**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | 4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation. | |
| | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. | CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |

| | | |
|---|---|---|
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | **BB1.b.5.h:** I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a.12.h: Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| | **MNF1.e.8.h:** I can use a manufacturing system to produce a product. | |
| | **MNF1.f.7.h:** I can recognize servicing keeps products in good operating condition. | |
| | **MNF1.f.8.h:** I can recognize technologies provide a means for humans to alter or modify materials and to produce products. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: AC1:** Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| | **AC1.a.13.h:** I can explain how structures can include prefabricated materials. | |

| | |
|---|---|
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). |
| Standard AC1.c: Demonstrate the safe and appropriate use of hand tools common to the residential and commercial construction industry. | **AC1.c.5.h:** I can demonstrate and use the common hand tools of the trade safely and properly. |
| | **AC1.c.6.h:** I can maintain and care for hand tools used in residential and commercial construction. |
| Standard AC1.e: Demonstrate project management procedures and processes as they occur in a construction project. | **AC1.e.13.h:** I can estimate materials from blueprints and specifications. |
| | **AC1.e.14.h:** I can explain the sequencing of events for specific construction projects. |
| | **AC1.e.15.h:** I can solve common residential construction problems such as framing, plumbing and electrical, by using the official codes adopted by the state and local building standards commission. |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| What are the building codes for doors and windows on a house? Commercial building? | Create a BOM | chromebook or computer |
| What types of exterior doors are there and what are the advantages and disadvantages of each? | Collect supplies needed for installing a door and window | internet |
| What types of exterior windows are there and what are the advantages and disadvantages of each? | Dry fit door and window | Frammed wall with rough opening for Door and window |
| What are the steps in framing a rough opening for a door and window? | Prep and install the door and window using industry standards | tools, supplies, and equipment for installing a door and window using industry standards |
| What steps need to be comleted to the rough opening before installing the door or window? | Building codes for doors and window on residential and commercial buildings | prehung doors |
| What are the industry standards and codes for installign a door? | checkpoint on doors and windows | prehung windows |
| What are the industry standards and codes for installign a Window? | | |

| *Unit 13 Trusses and Rafters* | | |
|---|---|---|
| **STAGE 1: Desired Unit Results**<br>*What will students understand as a result of the unit?* | | **STAGE 2: Assessment Evidence**<br>*By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?* |
| **ESSENTIAL QUESTION (s)**<br>*What thought-provoking questions will foster inquiry, understanding, and transfer of learning?* | | **Success Criteria with Standards**<br>*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 course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class. |
| 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**<br>*Students may be given options to show their learning in varied ways.* |
| **Creativity, Critical Thinking, Communication and Collaboration**<br>**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.11.h: I can determine the information needed to address an identified problem. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | 4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation. | |
| | 4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative. | |
| | 4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria. | |
| b: I develop and implement a resolution for a new situation using personal knowledge and experience. | 4C2.b.5.h: I can apply past experience to develop a course of action for a new situation. | |
| | 4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity. | |
| **Career Development**<br>**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.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways. | |
| | CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities. | |
| b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job. | CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview. | |
| c: I identify and exhibit traits for retaining employment. | CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability. | |

| | | |
|---|---|---|
| | CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite. | |
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | **BB1.b.5.h:** I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a.12.h: Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| | **MNF1.e.8.h:** I can use a manufacturing system to produce a product. | |
| | **MNF1.f.7.h:** I can recognize servicing keeps products in good operating condition. | |
| | **MNF1.f.8.h:** I can recognize technologies provide a means for humans to alter or modify materials and to produce products. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: AC1:** Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| | **AC1.a.13.h:** I can explain how structures can include prefabricated materials. | |

| | |
|---|---|
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). |
| Standard AC1.c: Demonstrate the safe and appropriate use of hand tools common to the residential and commercial construction industry. | **AC1.c.5.h:** I can demonstrate and use the common hand tools of the trade safely and properly. |
| | **AC1.c.6.h:** I can maintain and care for hand tools used in residential and commercial construction. |
| Standard AC1.e: Demonstrate project management procedures and processes as they occur in a construction project. | **AC1.e.13.h:** I can estimate materials from blueprints and specifications. |
| | **AC1.e.14.h:** I can explain the sequencing of events for specific construction projects. |
| | **AC1.e.15.h:** I can solve common residential construction problems such as framing, plumbing and electrical, by using the official codes adopted by the state and local building standards commission. |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| measuring, laying out and cutting Rafters | Reserch different roofing meathods | building materials |
| measuring, laying out and cutting and assemblying Trusses | Evaluate and compare advantages and disadvantages of each | building tools |
| Theory of Different roofing systems | Measure, calculate, design and build a roofing system | measuring tools |
| Advantages and disadvantages of different roofing systems | checkpoint on roofing systems | computers or chromebooks |
| What is the procedure for jointing the wall parts together | Create a BOM | 4x8 sheets of 1/2" osb |
| How can you maximize supplies to minimize waste | Collect supplies needed for framing | Speed Square |
| What types of framing techiques are there and how do they work | Cut and Layout materials for framing and sheathing | 2x4x8 boards |
| What are the advantages and disadvantages of different types of framing and roofing techniques | Joint frame together using industry standard joining techniques | miter saw |
| What are different framing methods for roofing? | Attach sheathing using industry standard joining techniques | table saw |
| What are the advantages and disadvantages of them? | Project cost calculations | hammer |
| What factors would be considered when deciding between the different roof framing methods? | | 3 1/2" 16 penny nails |
| How would you calculate and layout a truss and or rafter? | | 2 1/2" 8 penny nails |
| | | Tape measures |
| | | other assorted tools and equipment and supplies |
| | | 2x6 boards |
| | | 2x8 boards |

<table>
<tr><th colspan="3">Unit 14 Finish Carpentry</th></tr>
<tr><th colspan="2">STAGE 1: Desired Unit Results<br>What will students understand as a result of the unit?</th><th>STAGE 2: Assessment Evidence<br>By what criteria will performances of understanding be assessed?<br>Through what authentic performance tasks will students demonstrate the desired unit results?</th></tr>
<tr><td colspan="2">ESSENTIAL QUESTION (s)<br>What thought-provoking questions will foster inquiry, understanding, and transfer of learning?</td><td>Success Criteria with Standards<br>The criteria for evaluating performance on standards is constant.</td></tr>
<tr><td colspan="2">How might technical knowledge and skills influence one's employability and advancement opportunities within various work settings?</td><td rowspan="2">CTE standards-based Rubric: Throughout course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class.</td></tr>
<tr><td colspan="2">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?</td></tr>
<tr><td colspan="2">PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets</td><td>Performance Tasks Options/ Assessment Strategies by Standard<br>Students may be given options to show their learning in varied ways.</td></tr>
<tr><td colspan="2">Creativity, Critical Thinking, Communication and Collaboration<br>4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills.</td><td></td></tr>
<tr><td>a: I develop effective resolutions for a given problem, decision or opportunity using available information.</td><td>4C2.a.11.h: I can determine the information needed to address an identified problem.</td><td rowspan="6">Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric</td></tr>
<tr><td></td><td>4C2.a.12.h: I can contrast the benefits and drawbacks of various proposed resolutions to a given situation.</td></tr>
<tr><td></td><td>4C2.a.13.h: I can predict how an action could result in unintended consequences, both positive and negative.</td></tr>
<tr><td></td><td>4C2.a.15.h: I can determine the best resolution for a problem, decision or opportunity based on given criteria.</td></tr>
<tr><td>b: I develop and implement a resolution for a new situation using personal knowledge and experience.</td><td>4C2.b.5.h: I can apply past experience to develop a course of action for a new situation.</td></tr>
<tr><td></td><td>4C2.b.6.h: I can use existing knowledge to develop a resolution for a new situation, problem or opportunity.</td></tr>
<tr><td colspan="2">Career Development<br>CD4: Students will identify and apply employability skills.</td><td></td></tr>
<tr><td>a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable.</td><td>CD4.a.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status.</td><td rowspan="6">Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric</td></tr>
<tr><td></td><td>CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways.</td></tr>
<tr><td></td><td>CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities.</td></tr>
<tr><td>b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job.</td><td>CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview.</td></tr>
<tr><td>c: I identify and exhibit traits for retaining employment.</td><td>CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability.</td></tr>
<tr><td></td><td>CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite.</td></tr>
</table>

| | | |
|---|---|---|
| d: I develop positive relationships with others. | CD4.d.6.h: I can evaluate the best method to assist co-workers in accomplishing goals and tasks. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| | IMT1.b.9.h: I can defend a position or decision using relevant, valid and timely data and information. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | **BB1.b.5.h:** I can select appropriate resources and explain how trade-offs between competing values, such as availability, cost, desirability and waste influenced their decision. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| **Standard: ENG1:** Students will analyze and demonstrate the attributes of design. | *ENG1.a.12.h: Requirements of a design, such as criteria, constraints and efficiency, sometimes compete with each other.* | |
| **Standard: MNF1:** Students will be able to select and use manufacturing technologies. | **MNF1.a.7.h:** I can identify safety and health protections and procedures that are critical to worker well-being. | |
| | **MNF1.a.8.h:** I can use appropriate tools, materials, and machines to repair a malfunctioning system. | |
| | **MNF1.a.9.h:** I can select and apply the appropriate units and scales for situations involving measurement. | |
| | **MNF1.e.8.h:** I can use a manufacturing system to produce a product. | |
| | **MNF1.f.7.h:** I can recognize servicing keeps products in good operating condition. | |
| | **MNF1.f.8.h:** I can recognize technologies provide a means for humans to alter or modify materials and to produce products. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: AC1:** Students will be able to select and use architecture and construction technologies. | **AC1.b.12.h:** I can calculate required materials for residential construction applications. | *Students will demonstrate their understanding of safety and responsiblility learned from lectures, readings and demonstrations while working in the lab . These skills will be evaulated using a AT&E safety skills rubric* |
| | **AC1.a.13.h:** I can explain how structures can include prefabricated materials. | |
| | **AC1.b.14.h:** I can apply conventional construction measurement processes accurately (i.e., geometric and trigonometric functions). | |

| | |
|---|---|
| Standard AC1.c: Demonstrate the safe and appropriate use of hand tools common to the residential and commercial construction industry. | **AC1.c.5.h:** I can demonstrate and use the common hand tools of the trade safely and properly. |
| | **AC1.c.6.h:** I can maintain and care for hand tools used in residential and commercial construction. |
| Standard AC1.e: Demonstrate project management procedures and processes as they occur in a construction project. | **AC1.e.13.h:** I can estimate materials from blueprints and specifications. |
| | **AC1.e.14.h:** I can explain the sequencing of events for specific construction projects. |
| | **AC1.e.15.h:** I can solve common residential construction problems such as framing, plumbing and electrical, by using the official codes adopted by the state and local building standards commission. |

**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 unforld in a natural flow?*

| GUIDING UNIT QUESTIONS<br>*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* | STRATEGIES/ACTIVITIES<br>*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.* | RESOURCES/MATERIALS<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
|---|---|---|
| What is included in finish carpentry | checkpoint on finish carpentry | chromebook or computer |
| What are the steps to installing trim using industry standard installation steps? | checkpoint on installing different types of trim | internet |
| What types of materials can be used for trim? | cope and install trim on an existing wall | door and window installation for installing trim around |
| What are the advantages and disadvantages of the different types of trim material? | | trim |
| What are the standard practices for finish carpentry? | | tools, supplies and equipment needed for installing trim |
| What are the advantages and disadvantages between different material types used in finish carpentry? | | |
| What are standard practices for installing trim? | | |

<table>
<tr><th colspan="3">Unit 15 Career Investigation</th></tr>
<tr><th colspan="2">STAGE 1: Desired Unit Results<br>What will students understand as a result of the unit?</th><th>STAGE 2: Assessment Evidence<br>By what criteria will performances of understanding be assessed? Through what authentic performance tasks will students demonstrate the desired unit results?</th></tr>
<tr><td colspan="2">ESSENTIAL QUESTION (s)<br>What thought-provoking questions will foster inquiry, understanding, and transfer of learning?</td><td>Success Criteria with Standards<br>The criteria for evaluating performance on standards is constant.</td></tr>
<tr><td colspan="2">Why is career and life readiness important? What jobs and careers are available to meet individual and societal needs locally, regionally, and nationally?</td><td rowspan="2">CTE standards-based Rubric: Throughout course, students and teachers use rubric for communication of success criteria, reflection, goal setting, and feedback.<br><br>Students continually reflect on and discuss essential questions in their notebook and orally in class.</td></tr>
<tr><td colspan="2">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?</td></tr>
<tr><td colspan="2">PRIORITY CAREER & TECHNICAL STANDARDS & Learning Targets</td><td>Performance Tasks Options/ Assessment Strategies by Standard<br>Students may be given options to show their learning in varied ways.</td></tr>
<tr><td colspan="2">Creativity, Critical Thinking, Communication and Collaboration<br>4C2: Students will formulate and defend judgments and decisions by employing critical thinking skills.</td><td></td></tr>
<tr><td colspan="2">Career Development<br>CD4: Students will identify and apply employability skills.</td><td></td></tr>
<tr><td rowspan="4">a: I identify and demonstrate positive work behaviors and personal qualities needed to be employable.</td><td>CD4.a.6.h: I can evaluate how selfdiscipline, self-worth, positive attitude and integrity displayed in a work situation affect employment status.</td><td rowspan="12">Students will use Xello or a similar career exploration website or software to explore and understand different career oportunites in the building trades.</td></tr>
<tr><td>CD4.a.7.h: I can assess how flexibility and willingness to learn new knowledge and skills affect employment status.</td></tr>
<tr><td>CD4.a.9.h: I can use positive workqualities typically desired in each of the career cluster's pathways.</td></tr>
<tr><td>CD4.a.10.h: I can manage work roles and responsibilities to balance them with other life roles and responsibilities.</td></tr>
<tr><td rowspan="3">b: I demonstrate skills related to seeking and applying for employment to find and obtain a desired job.</td><td>CD4.b.5.h: I can use multiple resources to locate job opportunities.</td></tr>
<tr><td>CD4.b.6.h: I can prepare a resume, cover letter, employment application.</td></tr>
<tr><td>CD4.b.7.h: I can employ critical thinking and decision-making skills to exhibit qualifications to a potential employer in an interview.</td></tr>
<tr><td rowspan="4">c: I identify and exhibit traits for retaining employment.</td><td>CD4.c.4.h: I can model behaviors that demonstrate reliability and dependability.</td></tr>
<tr><td>CD4.c.5.h: I can maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite.</td></tr>
<tr><td>CD4.c.6.h: I can complete required employment forms and documentation.</td></tr>
<tr><td>CD4.c.7.h: I can summarize key activities necessary to retain a job in an industry.</td></tr>
<tr><td>d: I develop positive relationships with others.</td><td>CD4.d.7.h: I can examine the skills required to enable students to successfully transition to postsecondary opportunities.</td></tr>
</table>

| | | |
|---|---|---|
| | CD4.d.8.h: I can use a systematic approach to academic and career planning for students to achieve their learning, socio-cultural and work goals. | |
| **Information, Media, Technology**<br>**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.6.h: I can justify the selection of various information sources for a given purpose. | *Students will use Xello or a similar career exploration website or software to explore and understand different career oportunites in the building trades.* |
| | IMT1.a.7.h: I can explain the level of objectivity for a given source of information. | |
| b: I determine the relevance, validity and timeliness of data and information. | IMT1.b.7.h: I can use raw data and information appropriately to support an argument, idea or initiative. | |
| c: I select relevant information necessary for making decisions and solving problems | IMT1.c.5.h: I can defend a solution or conclusion using appropriate data and information. | |
| | IMT1.c.6.h: I can interpret and select appropriate information to develop a resolution for a given situation. | |
| d: I apply data and information to communicate ideas and create new opportunities. | IMT1.d.6.h: I can defend a proposal for a new product or service based on data and information analysis. | |
| **PRIORITY CONTENT STANDARDS & Learning Targets** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| **Standard: BB1:** Students will analyze the core concepts of technology. | BB1.a: Analyze and use technological systems. | *Students will use Xello or a similar career exploration website or software to explore and understand different career oportunites in the building trades.* |
| **Standard: ICT1:** Students will analyze, select and use information and communication technologies. | ICT1.a: Analyze how communication happens, the different forms of communication and how it affects society. | |
| **SUPPORTING STANDARDS AND LEARNING TARGETS** | | **Performance Tasks Options/ Assessment Strategies by Standard**<br>*Students may be given options to show their learning in varied ways.* |
| *enter supporting standards here, add more rows as needed* | *enter learning targets, add more rows as needed* | |
| **Stage 3: Learning Activities**<br>*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 unforld in a natural flow?* | | |
| **GUIDING UNIT QUESTIONS**<br>*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* | **STRATEGIES/ACTIVITIES**<br>*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.* | **RESOURCES/MATERIALS**<br>*This includes an applicable textbooks, software, industry recognized certification software/tools, subcriptions (such asPLTW), etc.* |
| What careers are associated with building construction? | Career Exploration in the Building Construction Trades | Computer or Chromebook |
| What are the educational requirements for these careers? | Sample Resume Building | Xello |
| What skills and experiences should I be getting now and in the future in order to pursue these careers? | Sample Job Application writing | |
| What gaps do I have in a resume? | | |
| What are the different careers associated with the different building construction units? | | |

| | | |
|---|---|---|
| What is the growth or reduction projection within the building trades? | | |
| What would be required beyond high school to persue a career in the building trades? | | |