

**CTE Standards Unpacking
Cabinetry**

Course: Cabinetry

Course Description: This course is designed to introduce the students to the basics of cabinetry. The course will stress safe and proper use of hand and power tools; safe shop practices and shop environment safety. Students will display a working knowledge of terms and techniques to design and build a wood working project.

Career Cluster: Architecture & Construction

Prerequisites: Introduction to Architecture and Construction

Program of Study Application: Introduction to Architecture and Construction is recommended but not required; Cabinetry, Advanced Cabinetry, Capstone Experience

INDICATOR #C 1: Observe and apply rules and regulations to comply with personal and shop safety.		
SUB-INDICATOR 1.1 (Webb Level: 2 Apply): Apply hand/power tool and lab safety standards.		
SUB-INDICATOR 1.2 (Webb Level: 1 Describe): Describe and wear appropriate personal protective equipment (PPE) when needed.		
SUB-INDICATOR 1.3 (Webb Level: 1 Indicate): Indicate a knowledge of government regulations regarding health and safety in the shop.		
Knowledge (Factual): <ul style="list-style-type: none"> • Knowledge of general shop safety principals. • Know what OSHA is and does for A&C. • Knowledge of hand and power tools 	Understand (Conceptual): <ul style="list-style-type: none"> • Practicing safety in A&C industries is essential. 	Skills (Application): <ul style="list-style-type: none"> • Identify improper shop safety practices and what precautions needs to be done to remedy those situations.
Benchmarks <i>Students will be assessed on their ability to:</i> <ul style="list-style-type: none"> • Students will pass a safety test with 100% proficiency. • Demonstrate the proper use of protective clothing and safety equipment. • Demonstrate basic first aid. • Examine basic safety using Occupation Safety Health Administration (OSHA) standards or equivalent. 		

Academic Connections	
<p>ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard):</p> <p>RI4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text</p> <p>RI7. Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.</p> <p>SL4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range or formal and informal tasks</p>	<p>Sample Performance Task Aligned to the Academic Standard(s):</p> <p>Students will read and interpret in writing and speaking Safety Data Sheets to understand safety standards in shop and industry.</p>

INDICATOR #C 2: Explore the different career opportunities in the industry.		
SUB-INDICATOR 2.1 (Webb Level: 3 Investigate): Investigate and examine career opportunities in cabinetry industry		
SUB-INDICATOR 2.2 (Webb Level: 2 Demonstrate): Demonstrate an understanding of necessary job skills needed in cabinetry careers		
<p>Knowledge (Factual):</p> <ul style="list-style-type: none"> • Career opportunities in the cabinetry 	<p>Understand (Conceptual):</p> <ul style="list-style-type: none"> • Knowledge of the various careers within cabinetry. 	<p>Skills (Application):</p> <ul style="list-style-type: none"> • Explore • Investigate

fields.	<ul style="list-style-type: none"> • Knowledge of the education required to obtain various careers within cabinetry. 	<ul style="list-style-type: none"> • Examine • Research <p>In career opportunities</p>
<p>Benchmarks</p> <p><i>Students will be assessed on their ability to:</i></p> <ul style="list-style-type: none"> • Through written and or oral communication students will explain in detail their understanding of career opportunities in A&C. • Students will be 80% proficient in recognizing careers in the A&C field. • Provide an in-depth comparative analysis of personal career and related educational goals with at least one career opportunity in the architecture and construction industry. 		
<p><i>Academic Connections</i></p>		
<p>ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard):</p> <p>RI1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.</p> <p>W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>W6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.</p> <p>SL4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that</p>	<p>Sample Performance Task Aligned to the Academic Standard(s):</p> <p>Students will use SDMylife or Occupational Outlook Handbook to create a presentation or report.</p>	

<p>listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range or formal and informal tasks</p>	
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<p>INDICATOR #C 3: Apply basic math principles used in the industry.</p>		
<p>SUB-INDICATOR 3.1 (Webb Level: 2 Demonstrate): Demonstrate proper use of appropriate math skills</p>		
<p>SUB-INDICATOR 3.2 (Webb Level: 2 Demonstrate): Demonstrate an understanding of the difference between board feet and linear feet</p>		
<p>SUB-INDICATOR 3.3 (Webb Level: 2 Demonstrate): Demonstrate proper measuring and layout skills</p>		
<p>Knowledge (Factual):</p> <ul style="list-style-type: none"> • Use of appropriate math skills • Use of proper measurement and layout tools. • Knowledge of board feet and linear feet. 	<p>Understand (Conceptual):</p> <ul style="list-style-type: none"> • Basic math principals are applied in Cabinetmaking. 	<p>Skills (Application):</p> <ul style="list-style-type: none"> • Demonstrate basic math skills. • Compare and contrast board feet versus linear feet.
<p>Benchmarks <i>Students will be assessed on their ability to:</i></p> <ul style="list-style-type: none"> • Read a rule/tape to 16th inch with 100% proficiency • Calculate board footage with 100% proficiency. 		
<p style="text-align: center;">Academic Connections</p>		
<p>ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard): G-MG.1 – Use geometric shapes, their measures, and their properties to describe objects.</p>	<p>Sample Performance Task Aligned to the Academic Standard(s): Students will calculate the amount of lumber to complete a project using the board foot formula.</p>	

G-MG.2 – Apply concepts of density based on area and volume in modeling situation.	
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INDICATOR #C 4: Identify various materials and apply project planning.

SUB-INDICATOR 4.1 (Webb Level: 1 Identify): Identify wood species and engineered materials.

SUB-INDICATOR 4.2 (Webb Level: 3 Analyze): Analyze design elements of a project plan

SUB-INDICATOR 4.3 (Webb Level: 4 Create, Implement): Create and implement a bill of materials and cut list from a project drawing

SUB-INDICATOR 4.4 (Webb Level: 1 Identify): Identify various types of hardware, fasteners, and adhesives used in the cabinetry industry

Knowledge (Factual):	Understand (Conceptual):	Skills (Application):
<ul style="list-style-type: none"> • Knowledge of various wood species and engineered materials in Cabinetry. • Knowledge of fasteners, adhesives, and hardware. • Knowledge of bill of materials and cut list 	<ul style="list-style-type: none"> • Appropriate planning of a project will result in a satisfactory end product. 	<ul style="list-style-type: none"> • Identify the different types of woods used in Cabinetry. • When and where to use appropriate fasteners, adhesives, and hardware. • Create a bill of materials and cut list for a project.

Benchmarks
Students will be assessed on their ability to:

- Students will be able to identify with 80% accuracy the differences between hardwoods and softwoods.
- Students will be able to construct a bill of materials and cut list with 100% proficiency.

Academic Connections	
<p>ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard):</p> <p>S-ID5 – Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.</p> <p>RI4. – Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text</p>	<p>Sample Performance Task Aligned to the Academic Standard(s):</p> <p>Students will complete a bill of materials to figure the board footage of the required project that they will build.</p> <p>Students will have to read the project plans in order to complete a plan of procedure for the project.</p>

INDICATOR #C 5: Recognize various cabinetry joinery and assembly techniques.		
SUB-INDICATOR 5.1 (Webb Level: 2 Demonstrate): Demonstrate common joinery techniques		
SUB-INDICATOR 5.2 (Webb Level: 2 Demonstrate, Assemble): Demonstrate knowledge of industry concepts to assemble projects		
<p>Knowledge (Factual):</p> <ul style="list-style-type: none"> • Knowledge of various Cabinetry joinery. • Knowledge of project assembly. 	<p>Understand (Conceptual):</p> <ul style="list-style-type: none"> • Cabinetry uses various joinery and assembly techniques. 	<p>Skills (Application):</p> <ul style="list-style-type: none"> • Construct the various joinery for the desired project being built. • Assemble the project using the appropriate fastening techniques.
<p>Benchmarks</p> <p><i>Students will be assessed on their ability to:</i></p>		

- Students will assemble their project according to the project plans with 90% accuracy.
- Students will construct the appropriate joinery according to the project plans with 90% accuracy.

Academic Connections

ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard):

G-MG3 – Apply geometric methods to solve design problems (e.g. designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios.)

RI4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text

RI7. Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

Sample Performance Task Aligned to the Academic Standard(s):

Students will make sure their project is square and level during assembly.

Students will read the project plans to determine what appropriate joinery is required for the project.

INDICATOR #C 6: Recognize and apply surface preparation and finishing techniques.

SUB-INDICATOR 6.1 (Webb Level: 2 Apply): Apply surface preparation techniques

SUB-INDICATOR 6.2 (Webb Level: 2 Apply): Apply finishing products

Knowledge (Factual):

- Various grits of sand paper.
- Knowledge of surface

Understand (Conceptual):

- Every project has a specific surface preparation and finishing techniques.

Skills (Application):

- Prepare the surface of the project for finishing using

preparation tools. <ul style="list-style-type: none"> • Various types of finishing products • Various applications for finishing. 		appropriate grits of sandpaper. <ul style="list-style-type: none"> • Apply appropriate finish to the project.
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Benchmarks

Students will be assessed on their ability to:

- Students will choose the appropriate grit of sandpaper for surface preparation 90% of the time.
- Students will apply appropriate finish to their project 100% of the time.

Academic Connections

ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard):

G-MG.1 – Use geometric shapes, their measures, and their properties to describe objects.
 G-MG.2 – Apply concepts of density based on area and volume in modeling situation
 G-MG3 – Apply geometric methods to solve design problems (e.g. designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios.)

RI4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text

RI7. Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually,

Sample Performance Task Aligned to the Academic Standard(s):

Students will figure area of their project to determine how much finish is required to complete their project.

Students will read the labels of the appropriate finish to determine correct application, and dry time for their project.

quantitatively) as well as in words in order to address a question or solve a problem.	
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Additional Resources

Please list any resources (e.g., websites, teaching guides, etc.) that would help teachers as they plan to teach these new standards.