

DESE Model Curriculum

GRADE LEVEL/UNIT TITLE: 9-12 / Carpentry — Materials and Tools

Course Code: CONSTRUCTION

COURSE INTRODUCTION: Carpentry

Carpentry courses provide information related to the building of wooden structures, enabling students to gain an understanding of wood grades and construction methods and to learn skills, such as: laying sills and joists; erecting sills and rafters; applying sheathing, siding, and shingles; setting door jambs; and hanging doors. Carpentry courses may teach skills for rough construction, finish work, or both. Students learn to read blueprints, draft, use tools and machines properly and safely, erect buildings from construction lumber, perform finish work inside of buildings, and do limited cabinet work.

The units in this course are:

1. Materials and Tools
2. Concrete and Framing
3. Weatherproofing
4. Interior Finishing

DESE Model Curriculum

GRADE LEVEL/UNIT TITLE: 9-12 / Carpentry — Materials and Tools

Course Code: CONSTRUCTION

<p>UNIT DESCRIPTION: (1 of 4) Materials and Tools These lessons are designed to introduce the basic materials and tools commonly used in carpentry, and to provide the carpentry student with the basic understandings and associated skills required to advance to more specific techniques within the carpentry trade.</p>		<p>SUGGESTED UNIT TIMELINE: 2 lessons Lesson 1: Building Materials, Fasteners, and Adhesives Lesson 2: Hand and Power Tools CLASS PERIOD (min.): 90 minutes each</p>				
<p>ESSENTIAL QUESTIONS:</p> <ol style="list-style-type: none"> 1. How are carpentry materials chosen and used? 2. Why are different tools used to accomplish different tasks? 						
ESSENTIAL MEASURABLE LEARNING OBJECTIVES	CCSS LEARNING GOALS (Anchor Standards/Clusters)	CROSSWALK TO STANDARDS				
		GLEs/CLEs	PS	CCSS	NCCER	DOK
<ol style="list-style-type: none"> 1. Students will demonstrate knowledge of basic carpentry materials and how they may be used together. 				SL 9-10.1 SL 11-12.1 RI.9-10.4 RI 11-12.1 RI 11-12.3 RI.11-12.4 RI 11-12.7 RST 9-10.1 RST 9-10.5 RST 11-12.1 RST 11-12.5 L.9-10.1 L.9-10.2 L.9-10.4 L.9-10.6 L.11-12.1 L.11-12.2 L.11-12.4 L.11-12.6	27102-06	Level 3

DESE Model Curriculum

GRADE LEVEL/UNIT TITLE: 9-12 / Carpentry — Materials and Tools

Course Code: CONSTRUCTION

<p>2. Students will translate information found on construction drawings into quantities of building materials.</p>			<p>N-RN 3 N-Q 1 N-Q 2 N-Q 3 N-CN 6 G-GMD 4 G-MG 3 SL 9-10.1 SL 11-12.1 L 9-10.1 L 9-10.2 L 9-10.4 L 9-10.6 L 11-12.1 L 11-12.2 L 11-12.4 L 11-12.6 WHST 9-10.1 WHST 9-10.4 WHST 9-10.10 WHST 11-12.1 WHST 11-12.4 WHST 11-12.10</p>	<p>27102-06</p>	<p>Level 1</p>
<p>3. Students will recognize unsafe behaviors and demonstrate safe alternatives.</p>			<p>SL 9-10.1 SL 11-12.1 RI 11-12.1 RI 11-12.3 RI 11-12.7 RST 9-10.1 RST 11-12.1</p>	<p>27103-06</p>	<p>Level 1</p>
<p>4. Students will recognize and state the uses of common hand and power tools used in carpentry.</p>			<p>RST 9-10.4 RST 9-10.5 RST 11-12.4</p>	<p>27103-06</p>	<p>Level 1</p>

DESE Model Curriculum

GRADE LEVEL/UNIT TITLE: 9-12 / Carpentry — Materials and Tools

Course Code: CONSTRUCTION

				RST.11-12.5 RST.11-12.9 L.9-10.1 L.9-10.2 L.9-10.4 L.9-10.6 L.11-12.1 L.11-12.2 L.11-12.4 L.11-12.6		
5. Students will select tools for a given application, and explain why their choices are appropriate.				L 9-10.1 L 9-10.2 L 9-10.4 L 9-10.6 L 11-12.1 L 11-12.2 L 11-12.4 L 11-12.6 WHST 9-10.1 WHST 9-10.4 WHST 9-10.10 WHST 11-12.1 WHST 11-12.4 WHST 11-12.10	27103-06	Level 3
<p>ASSESSMENT DESCRIPTIONS*: (Write a brief overview here. Identify Formative/Summative. Actual assessments will be accessed by a link to PDF file or Word doc.)</p> <p>Students will demonstrate their understanding of content and ability to apply learned skills by:</p> <ul style="list-style-type: none"> • Completing crossword puzzle worksheets over relevant vocabulary (Formative) • Preparing a materials estimate (Formative) • Writing rationales defending their choices of materials (Summative) • Visually demonstrating safe behaviors (Formative) • Creating posters categorizing tools (Formative) • Writing rationales defending their choices of tools (Summative) 						

DESE Model Curriculum

GRADE LEVEL/UNIT TITLE: 9-12 / Carpentry — Materials and Tools

Course Code: CONSTRUCTION

*Attach Unit Summative Assessment, including Scoring Guides/Scoring Keys/Alignment Codes and DOK Levels for all items. Label each assessment according to the unit descriptions above (i.e., Grade Level/Course Title/Course Code, Unit #).	
Obj. #	INSTRUCTIONAL STRATEGIES (research-based): (Teacher Methods)
1, 4	Direct: Instructor-led demonstrations
1, 2, 3	Interactive: Instructor guides students to work in teams.
1, 2, 4, 5	Indirect/Independent Study: Instructor provides visual materials to guide student learning.
3	Direct: Instructor prompts students to demonstrate learned behaviors.
Obj. #	INSTRUCTIONAL ACTIVITIES: (What Students Do)
1, 3	Reading for Meaning; Peer Partner Learning
1, 4	Concept Mapping
2, 5	Assigned Questions
UNIT RESOURCES: (include Internet addresses for linking)	
<p>Support documents:</p> <ul style="list-style-type: none"> • [CROSSWORD PUZZLE WORKSHEET] • [GRADE STAMPS PDF] • [ENGINEERED LUMBER SDS] • [CROSSWORD PUZZLE KEY] • [MATERIALS ESTIMATE CHECKLIST] • [RATIONALE FOR MATERIALS ESTIMATE RUBRIC] • [POSTER CHECKLIST] • [RATIONALE FOR TOOLS LIST RUBRIC] <p>Resources available from MCCE free loan library (www.mcce.org):</p> <ul style="list-style-type: none"> • Modern Carpentry, Building Construction Willis H Wagner, Howard Bud Smith, TINLEY PARK, IL, THE GOODHEART-WILLCOX CO INC, 2004. CD ROM — G-W Test Creation Software. This software enables an instructor to quickly create tests using a furnished test bank, or by adding their own questions. 	