

Woodshop

Unit Title: Safety, Marking, Measurements, Shelving & Construction

Stage 1: Desired Results

Standards & Indicators:

9.3.12.AC.1 Use vocabulary, symbols, and formulas common to architecture and construction.
 9.3.12.AC.2 Use architecture and construction skills to create and manage a project.
 9.3.12.AC.3 Comply with regulations and applicable codes to establish and manage a legal and safe workplace.
 9.3.12.AC.6 Read, interpret and use technical drawings, documents, and specifications to plan a project.
 9.3.12.AC.7 Describe career opportunities and means to achieve those opportunities in each of the Architecture & Construction Career Pathways.
 9.3.12.AC-CST.3 Implement testing and inspection procedures to ensure successful completion of a construction project.
 9.3.12.AC-CST.5 Apply practices and procedures required to maintain job site safety.
 9.3.12.AC-CST.7 Compare and contrast the building systems and components required for a construction project.
 9.3.12.AC-CST.8 Demonstrate the construction crafts required for each phase of a construction project.
 9.3.12.AC-CST.9 Safely use and maintain appropriate tools, machinery, equipment, and resources to accomplish construction project goals.
 9.3.12.AC-DES.3 Describe the requirements of the integral systems that impact the design of buildings.
 9.3.12.AC-DES.4 Apply building codes, laws, and rules in the project design.
 9.3.12.AC-DES.6 Apply the techniques and skills of modern drafting, design, engineering, and construction to projects.

Career Readiness, Life Literacies and Key Skills

Standard	Performance Expectations	Core Ideas
9.1.8.CR.2	Compare various ways to give back through strengths, passions, goals, and other personal factors.	Individuals can use their talents, resources, and abilities to give back.
9.1.8.CR.3	Relate the importance of consumer, business, and government responsibility to the economy and personal finance	The potential for building and using personal wealth includes responsibility to the broader community and an understanding of the legal rights and responsibilities of being a good citizen.
9.1.8.CR.4	Examine the implications of legal and ethical behaviors when making financial decisions	The potential for building and using personal wealth includes responsibility to the broader community and an understanding of the legal rights and responsibilities of being a good citizen.
9.1.8.CP.1	Compare prices for the same goods or services.	There are strategies to build and maintain a good credit history.
9.1.8.EG.9	Identify types of consumer fraud, the procedures for reporting fraud, the specific consumer protection laws, and the issues they address.	There are procedures required to take advantage of consumer protection laws and assistance programs.
9.1.8.PB.2	Explain how different circumstances can affect one's personal budget.	A budget aligned with an individual's financial goals can help prepare for life events.

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9.1.8.FP.1	Describe the impact of personal values on various financial scenarios.	An individual's values and emotions will influence the ability to modify financial behavior (when appropriate), which will impact one's financial well-being.
<p><u>Central Idea/Enduring Understanding:</u></p> <p>Students will demonstrate an understanding of the elements and principles that govern the creation of pieces of carpentry. All learners will demonstrate an understanding of the steps involved in problem-solving. All students will develop a technical vocabulary and display knowledge of technological terms through problem-solving activities. All learners will develop an understanding of the design process and material used. All learners will demonstrate an understanding of the steps involved in problem-solving.</p>		<p><u>Essential/Guiding Question:</u></p> <p>Why is it important to learn safety measures? How do I use tools to fix problems? Why is a wood working plan important? How does an order of operation procedure keep the project organized?</p>
<p><u>Content:</u></p> <p>Safety procedures and protocols Machinery & Power tools Hand tools Wood finishes Project planning Material lists Measurements Square Cabinet making Framing Trim Floor modeling Backing Hardware Joints in woodworking Miter</p>		<p><u>Skills(Objectives):</u></p> <p>Operate safely and successfully woodworking machinery. Operate safely and successfully basic woodworking hand held power tools. Demonstrate how to properly plan and lay out a project before work begins. Use correct measuring techniques. Demonstrate how to keep a project in square. Demonstrate how to insert/attach hardware. Identify basic woodworking joints. Identify and properly use machinery and power tools Identify and select appropriate finishes for wood projects. Create and use plans for projects with material list and order of operation for project. Apply knowledge of measurement to correctly plan, cut, and attach wood for projects. Build and finish projects constructed of wood. Assess a construction project without critiquing the builder.</p>

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Interdisciplinary Connections:

NJSLSA.R1. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

NJSLSA.R.7 Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words

NJSLSA.R10. Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.

RST.6.8-3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

RST.6.8-4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 6-8 texts and topics*.

RST.6.8-9 Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

NJSLS7.RP- Analyze proportional relationships and use them to solve real-world and mathematical problems.

NJSLS7.NS Apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers.

Stage 2: Assessment Evidence

Performance Task(s):

Operate basic woodworking handheld and power tools.
Make precise measurements on woodworking projects.
Square structures to keep them at 90 degrees.
Install hardware devices.
Drill pilot holes for screws.
Cut and assemble a miter.
Use woodworking skills to plan and create a finished product.

Other Evidence:

Daily Do-Now activities
Vocabulary
Sketches/research
Participation
Following Class Procedures
Projects assessed using rubrics focused on skills taught, safety protocols and processes used

Stage 3: Learning Plan

Learning Opportunities/Strategies:

Teacher demonstrations.

Resources:

Beginning Woodwork, McMillian/McGraw-Hill Company Text

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<p>Question and answer, verbal and written.</p> <p>Discussions.</p> <p>Students explain what they are doing and why. Asking for feedback for other students.</p> <p>A written report on all projects worked on.</p> <p>Using worksheets.</p> <p>Teacher modeling of correct and safe use of machinery and tools.</p> <p>Teacher-guided demonstrations.</p> <p>Visual aids.</p> <p>Taking measurements.</p> <p>Making cuts after measuring.</p> <p>Direct instruction on how to use machinery.</p> <p>Model of completing projects demonstrating excellent practices.</p> <p>Working in a group or independently to construct the project.</p> <p>Memorizing written safe rules and regulations of the woodshop.</p> <p>Use of word walls.</p> <p>Participating in the completion of assigned projects.</p> <p>Self-Reflection</p>	<p><u>The Illustrated Professional Woodworker</u>, Hermes House</p> <p>YouTube demonstrations</p> <p>Supplemental materials: Teacher-made packets, Internet</p> <p>Social Studies Resources:</p> <ul style="list-style-type: none"> • 6.3 Suggested Framework K-12 • NJ Commission on Holocaust Education • Facing History and Ourselves • New Jersey Historical Commission • Library of Congress (Primary Sources) • National Archives (Primary Sources) • Newsela • PBS Learning Media • Stanford History Education Group • Zinn Education Project <p>Amistad Resources for Social Studies:</p> <ul style="list-style-type: none"> • The New Jersey Amistad Commission Interactive Curriculum • New Jersey State Board Foundation • Civil Rights Teaching • Black Past <p>AAPI Resources for Social Studies:</p> <p>LGBT and Disabilities Resources:</p> <ul style="list-style-type: none"> • LGBTQ-Inclusive Lesson & Resources by Garden State Equality and Make it Better for Youth • LGBTQ+ Books <p>DEI Resources:</p> <ul style="list-style-type: none"> • Learning for Justice • GLSEN Educator Resources • Supporting LGBTQIA Youth Resource List • Respect Ability: Fighting Stigmas, Advancing Opportunities • NJDOE Diversity, Equity & Inclusion Educational Resources • Diversity Calendar <p><i>*Be sure to only include applicable resources.</i></p>
<p><u>Differentiation</u></p> <p>*Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation</p>	

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High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
<p>Higher Order questions</p> <p>Leadership roles in the classroom, peer teaching</p> <p>Encourage students to explore concepts in depth and encourage independent studies or investigations.</p> <p>Write a research report on an architect or architectural style</p>	<p>Provide textbooks</p> <p>Learners write a report</p> <p>Students create a study guide</p> <p>Create a PowerPoint presentation summarizing the lesson</p> <p>Mini Lessons</p> <p>Student choice</p> <p>Provide a glossary of content-related terms</p>	<p>Reduce the amount of required reading</p> <p>Pairing students with groups to increase peer learning</p> <p>Match vocabulary words to definitions</p> <p>Read a passage of text and answer related questions</p> <p>Use a graphic organizer</p> <p>Provide relevant background knowledge through multiple avenues</p> <p>Structure brainstorming activities so that relevant knowledge is activated and inaccurate knowledge is revised</p> <p>Model sample problems or tasks</p> <p>Give step-by-step instructions</p> <p>Pre-teach vocabulary</p>	<p>Any student requiring further accommodations and/or modifications will have them individually listed in their 504 Plan or IEP. These might include, but are not limited to: breaking assignments into smaller tasks, giving directions through several channels (auditory, visual, kinesthetic, model), and/or small group instruction for reading/writing</p> <p>ELL supports should include, but are not limited to, the following::</p> <p>Extended time</p> <p>Provide visual aids</p> <p>Repeated directions</p> <p>Differentiate based on proficiency</p> <p>Provide word banks</p> <p>Allow for translators, dictionaries</p>

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Pacing Guide

Course Name	Content/Resources	Standards
45 Days	<p><u>Beginning Woodwork</u>, McMillian/McGraw-Hill Company Text</p> <p><u>The Illustrated Professional Woodworker</u>, Hermes House</p> <p>YouTube demonstrations</p> <p>Supplemental materials: Teacher-made packets, Internet</p>	<p>9.3.12.AC.1 Use vocabulary, symbols, and formulas common to architecture and construction.</p> <p>9.3.12.AC.2 Use architecture and construction skills to create and manage a project.</p> <p>9.3.12.AC.3 Comply with regulations and applicable codes to establish and manage a legal and safe workplace.</p> <p>9.3.12.AC.6 Read, interpret and use technical drawings, documents, and specifications to plan a project.</p> <p>9.3.12.AC.7 Describe career opportunities and means to achieve those opportunities in each of the Architecture & Construction Career Pathways.</p> <p>9.3.12.AC-CST.3 Implement testing and inspection procedures to ensure successful completion of a construction project.</p> <p>9.3.12.AC-CST.5 Apply practices and procedures required to maintain job site safety.</p> <p>9.3.12.AC-CST.7 Compare and contrast the building systems and components required for a construction project.</p> <p>9.3.12.AC-CST.8 Demonstrate the construction crafts required for each phase of a construction project.</p> <p>9.3.12.AC-CST.9 Safely use and maintain appropriate tools, machinery, equipment, and resources to accomplish construction project goals.</p> <p>9.3.12.AC-DES.3 Describe the requirements of the integral systems that impact the design of buildings.</p> <p>9.3.12.AC-DES.4 Apply building codes, laws, and rules in the project design.</p> <p>9.3.12.AC-DES.6 Apply the techniques and skills of modern drafting, design, engineering, and construction to projects.</p>