

Woodworking II: Production Processes

Stage 1 Desired Results		
<p>ESTABLISHED GOALS:</p> <p><u>Competencies:</u></p> <ul style="list-style-type: none"> Students will demonstrate the ability to safely and properly select, use and maintain equipment, materials, and processes in order to avoid injury and harm. Students will demonstrate the ability to effectively plan and complete a project in order to develop a solid work ethic, and to accept individual responsibility. Students will demonstrate the ability to apply critical thinking and problem solving in order to meet given expectations. Students will demonstrate the ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials. Students will demonstrate the ability to produce coherent and supported writing in order to communicate effectively for a range of discipline-specific tasks, purposes, and audiences. Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and discourse style. <p><u>Content Standards</u></p> <p>New Hampshire Vocational Curriculum guide:</p> <ul style="list-style-type: none"> Standard 1: Students will develop an understanding of the characteristics and scope of technology. Standard 2: Students will develop an understanding of the core concepts of technology. Standard 8: Students will develop an understanding of the attributes of design. Standard 9: Students will develop an understanding of engineering design. Standard 10: Students will develop an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving. Standard 11: Students will develop the abilities to apply the design process. Standard 12: Students will develop the abilities to use and maintain technological products and systems. Standard 13: Students will develop the abilities to assess the impact of products and systems. Standard 19: Students will develop an understanding of and be able to select and use manufacturing technologies Standard 20: Students will develop an understanding of and 	<i>Transfer</i>	
	<p><i>Students will be able to independently use their learning to research, design and apply processes</i></p>	
	<i>Meaning</i>	
	<p>ENDURING UNDERSTANDINGS</p> <p><i>Students will understand that...</i></p> <ul style="list-style-type: none"> thorough research will affect the outcome of a project. reading and interpreting plans is an important part of the design process. accuracy will affect the outcome of a project. there are a variety of tools and techniques a woodworker can use to create a desired product. advanced processes result in more advanced projects. 	<p>ESSENTIAL QUESTIONS</p> <ul style="list-style-type: none"> Is there a best process to complete a task?
<i>Acquisition</i>		
	<p><i>Students will know...</i></p> <ul style="list-style-type: none"> that problem solving consists of troubleshooting, research and development, and experimentation. the importance of reading and understanding plans.. that the direction of wood grain impacts joint strength. that plywood, particle board, and fiber boards are used for frame construction. that solid woods are used for face frames, foot moldings, and crown moldings. the stress levels of particular wood joints. that table saw extensions help support awkward stock. 	<p><i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> using the core concepts of technology. utilizing all aspects of problem solving. selecting and using energy and power technologies. identifying the attributes of design and applying the design process. using and maintaining technological products and systems. selecting and using manufacturing and construction technologies. determining grain direction by looking at the front, side and end grain. building a cabinet frame using plywood. constructing face frames, foot moldings, and crown moldings for projects.

<p>be able to select and use construction technologies.</p>	<ul style="list-style-type: none"> ● that taper jigs are used to cut angles for legs of a table. ● that miter jigs can be used instead of miter gauge to make crosscutting applications. ● that drilling attachments are used to increase the accuracy of a portable drill. ● the appropriate material for turnings. ● the applications for turning on centers and faceplate tuning. <p><u>Vocabulary:</u> finger lap joint, sliding dovetail, reinforced edge miter, face frame joinery, stop cuts</p>	<ul style="list-style-type: none"> ● testing stress levels of individual joints in a press. ● using jigs safely and effectively to complete their projects. ● decreasing operator error by creating a fixture. ● increasing the structural integrity of work pieces. ● selecting appropriate material and thickness. ● centering stock on lathe. ● constructing a turned project (knob, legs, and bowl). ● sanding and finishing a project on the lathe. ● working with turning tools to create various shapes.
<p>Content Area Literacy Standards</p>		<p>21st Century Skills</p>
<p>RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p>RST.11-12.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p> <p>RST.9-10.7 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.</p> <p>WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>WHST.11-12.9 Draw evidence from informational texts to support analysis, reflection, and research.</p>		<ul style="list-style-type: none"> ● <i>Use and manage information</i> ● <i>Apply technology effectively</i> ● <i>Be self-directed learners</i> ● <i>Interact with others</i> ● <i>Solve problems</i>

<p>Stage 2 - Evidence</p>	
<p>Evaluative Criteria</p>	<p>Assessment Evidence</p>
	<p>OTHER EVIDENCE:</p>

Stage 3 – Learning Plan

<i>Language Arts Integration</i>	<i>Mathematics Integration</i>
<ul style="list-style-type: none">• 1.OA.1 Use	<ul style="list-style-type: none">• 1.OA.1 Use
<i>Technology Integration</i>	<i>District Materials</i>
<ul style="list-style-type: none">• 1.OA.1 Use	