



BLUE VALLEY DISTRICT CURRICULUM & INSTRUCTION  
**Architecture & Engineering**  
**Wood Technologies II**



**ORGANIZING THEMES INTEGRATED IN PROJECT-BASED LEARNING**

**FOCUS STANDARDS & SKILLS**

<p><b>THEME: Safety</b></p> <ul style="list-style-type: none"> <li>• Lab Safety</li> <li>• Tool Recognition and proper use</li> <li>• OSHA safety regulations</li> </ul> <p>Time Frame: 1 week and Integrated through all units</p>	<p><b>Safety and Procedural Skills:</b></p> <p>KS 17007.2.3 Comply with regulations and applicable codes to establish and manage a legal and safe workplace / jobsite.</p> <ul style="list-style-type: none"> <li>• Apply all shop safety rules and procedures.</li> <li>• Recognize and identify basic hand tools and their proper uses in industrial trades.</li> <li>• Recognize and identify basic power tools and their proper uses in the industrial trades.</li> </ul> <p>KS 17007.9 Explain and apply OSHA safety regulations.</p>
<p><b>THEME: Planning and Designing</b></p> <ul style="list-style-type: none"> <li>• Wood characteristics</li> <li>• Design Process</li> <li>• Plan, design and layout stock</li> </ul> <p>Time Frame: 2 weeks</p>	<p><b>Planning and Designing Skills:</b></p> <p>KS 38007.5 Develop a plan of procedure for constructing a project.</p> <p>KS 17007.5 Plan, design and layout stock for Wood Technology projects.</p> <ul style="list-style-type: none"> <li>• Select and use appropriate stock and resources to match project form and function.</li> <li>• Match species of lumber to attributes needed for projects.</li> <li>• Identify uses of panel stock and other engineered wood.</li> <li>• Identify impact of wood movement.</li> <li>• List five attributes of a good design.</li> </ul>
<p><b>THEME: Proper use of Tools in Project construction</b></p> <ul style="list-style-type: none"> <li>• Use of hand tools</li> <li>• Use of portable power tools</li> <li>• Use of machines</li> </ul> <p>Time Frame: 15 weeks</p>	<p><b>Construction of complex projects demonstrating:</b></p> <p>KS 17007.1 Use of hand tools to construct a project (such as chisels, glue scapers, hammers).</p> <p>KS 17007.3 Use of portable power tools to construct a project (such as sander, drill).</p> <p>KS 17007.4 Use of machines to construct a project (such as router, band and scroll saw, drill press, stationary sander, table saw, radial arm saw, jointer and planer, lathe).</p> <p>KS 17007.7 Use of joints, such as butt, dado, tongue-and-groove, lap, dovetail.</p> <p>KS 17007.2 Application of math skills to control distance, spacing and/or angle measurements and placements for constructing a project, including linear measurement using appropriate device.</p>

<p><b>THEME</b> Advanced Project Design and Construction</p> <ul style="list-style-type: none"> <li>• Elements and principles of design</li> <li>• Joining and assembly</li> <li>• Finishing surfaces</li> <li>• Production Process</li> </ul> <p>Time Frame: 18 weeks</p>	<p><b>Construction of an advanced project</b></p> <p>KS 17007.6 Incorporate the elements &amp; principles of design as related to traditional styles in history.</p> <p>KS 38007.5 Develop and follow a plan of procedure for constructing a project.</p> <ul style="list-style-type: none"> <li>• Select or design a furniture or cabinet project to meet a specified function.</li> <li>• Develop a materials list.</li> <li>• Layout materials for cut list.</li> <li>• Construct a frame.</li> <li>• Construct and install drawers.</li> <li>• Construct and hang doors.</li> </ul> <p>KS 17007.5 Perform the steps to interpret, transfer and layout lines &amp;/or markings to be used for constructing a project.</p> <p>KS 17007.7 Select and perform “best method” for joining and assembling project parts.</p> <p>KS 17007.8 Apply a quality finish on a project utilizing appropriate materials and equipment.</p>
<p><b>THEME/TOPIC:</b> Career and college readiness</p> <ul style="list-style-type: none"> <li>• Career development skills</li> <li>• Teamwork</li> <li>• Personal leadership skills</li> <li>• Academic integration</li> </ul> <p>Time Frame: Integrated through all units</p>	<p>KS 460000.0.2.6 Interpret information from manuals, computer printouts, and electronic sources.</p> <p>KS 460000.0..1.8 Utilize problem solving skills.</p> <p>KS 460000.0.2.6 Locate information and select the material needed to accomplish a specific task.</p> <p>KS 460000.0.1.2 Set priorities or the order in which several tasks will be accomplished.</p> <p>KS 460000.0.2.10 Access and use information to develop educational and career options.</p> <p>KS 460000.0.2.1 Solve problems that involve whole numbers, decimals, and fractions including use of appropriate conversions when necessary.</p> <p>KS 17007.2 Calculate and determine accurate measurements with various standard units of measurement.</p> <p>KS 38001.7 Understand and respond constructively to performance reviews.</p> <p>KS 460000.0.2.7 Evaluate a wide range of career pathway opportunities for success in architecture and construction careers</p>