



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



ORGANIZING THEMES INTEGRATED IN PROJECT-BASED LEARNING

FOCUS STANDARDS & SKILLS

<p>THEME: Safety</p> <ul style="list-style-type: none"> • Lab Safety • Tool Recognition and proper use • OSHA safety regulations <p>Time Frame: 1 week and Integrated through all units</p>	<p>Safety and Procedural Skills: 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"> • Apply all shop safety rules and procedures. • Recognize and identify basic hand tools and their proper uses in industrial trades. • Recognize and identify basic power tools and their proper uses in the industrial trades. <p>KS 17007.9 Explain and apply OSHA safety regulations.</p>
<p>THEME: Planning and Designing</p> <ul style="list-style-type: none"> • Wood characteristics • Design Process • Plan, design and layout stock <p>Time Frame: 2 weeks</p>	<p>Planning and Designing Skills: 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"> • Select and use appropriate stock and resources to match project form and function. • Match species of lumber to attributes needed for projects. • Identify uses of panel stock and other engineered wood. • Identify impact of wood movement. • List five attributes of a good design.
<p>THEME: Proper use of Tools in Project construction</p> <ul style="list-style-type: none"> • Use of hand tools • Use of portable power tools • Use of machines <p>Time Frame: 15 weeks</p>	<p>Construction of complex projects demonstrating:</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>THEME Advanced Project Design and Construction</p> <ul style="list-style-type: none"> • Elements and principles of design • Joining and assembly • Finishing surfaces • Production Process <p>Time Frame: 18 weeks</p>	<p>Construction of an advanced project</p> <p>KS 17007.6 Incorporate the elements & 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"> • Select or design a furniture or cabinet project to meet a specified function. • Develop a materials list. • Layout materials for cut list. • Construct a frame. • Construct and install drawers. • Construct and hang doors. <p>KS 17007.5 Perform the steps to interpret, transfer and layout lines &/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>THEME/TOPIC: Career and college readiness</p> <ul style="list-style-type: none"> • Career development skills • Teamwork • Personal leadership skills • Academic integration <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>