

Carpentry Lesson Plan

<b>Course:</b> Carpentry	<b>Grade:</b> 9-12
<b>Instructor:</b>	<b>CIP Code:</b> 460201
<b>Unit:</b> Building Materials	<b>Title:</b> Materials and Fasteners
<p><b>Knowledge, Content and skills:</b> Students will be able to: identify Lumber, engineered wood products, fasteners and adhesives.</p> <p><b>Performance objective:</b> Identify different species of wood, plywood, lumber types, lumber defects, define actual and nominal, engineered building materials, define the use of engineered materials. Identify and describe the use of fasteners and adhesives. Identify the parts of a board including: end, edge, face, thickness, width and length, calculate board feet, identify lumber defects. Answer the questions on pages: 160-161.</p>	
<p><b>Competency Standard:</b> 7. Explain terms commonly used to describe wood/lumber and discuss and identify lumber materials such as dimensional lumber, plywood, building boards and engineered wood products. 8. Demonstrate proper selection and use of a variety of fasteners and adhesives. 44. Demonstrate and apply safe practices and procedures in the workplace.</p>	
<p><b>Common Core: ELA—Reading:</b> Students will demonstrate the ability to comprehend, analyze, and critique a variety of increasingly complex print and non-print informational texts-including science, social studies and technical subjects.</p> <p><b>MATH—Students will solve problems involving spatial reasoning using properties of 2- and 3-dimensional figures to analyze represent, and model geometric relationships in pure/theoretical and authentic applied contexts</b></p>	
<p><b>Task analysis or activities:</b> Students will work in small groups, working together to complete all activities and helping each other as they progress at their own pace. Try to have enough material for each student or small group of students. Depending on the quantities in your shop, you could dedicate a station to each material and then students could be divided into small groups and rotate through each station. Suggested Stations: Identify species and 2x vs. 1x and lumber defects, identify plywood, identify parts of the board and calculate board feet, identify fasteners/ adhesives and describe their uses. Create a worksheet for each station using pages: 145-161.</p>	
<p><b>Tools, supplies and reference materials:</b> Lumber samples of the following: 2x douglas fir framing material, 1x pine, oak, cedar, examples of defective lumber. Plywood: CDX, OSB, Hardboard. Fasteners: framing and finish nails, screws: slotted, square and phillips drive. Adhesives used in your shop and the matching MSDS sheets. Career Connection Book 1 Chapter 6 pages: 145-161.</p>	
<p><b>Methods of Instruction:</b> Lecture and demonstration on how to identify building materials and their use and proper storage, reference to the Career Connections Book 1 Chapter 6, and hands-on practice with a sample of each material.</p> <p><b>Estimated time:</b> 4 hrs. <b>Number of students:</b> 10-15</p>	
<p><b>Evaluation:</b> Students will be graded on their use of time, safety methods, quality of work, cleaning and organization of their work area, interaction with other students, and employability skills. Answer "Chapter Check" questions on pages: 160-161.</p>	
<p><b>Instructors Notes:</b></p>	



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