

Wood Technology Lesson Plan

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| Lesson Plan Title | Materials and Fasteners |
| Lesson Plan Created by | Zachary DePace Career Connections Outreach Specialist |
| Grade | 9-12 |
| Subject | Wood Technology |
| Standard(s) | D. Materials: Describe characteristics and appropriate applications for softwoods, hardwoods, and plywood. H. Assembly: Identify and describe the purpose of various types of fasteners, adhesives, and clamping devices. 26. Describe the abrasive grit numbering grading system. |
| Time | 5 hrs. |
| Indicators/Objectives | Students will be able to: Identify Lumber, engineered wood products, fasteners and adhesives. |
| Required Materials | 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 Philips drive. Adhesives used in your shop and the matching SDS sheets. Career Connection Book 1 Chapter 6 pages: 145-161. |
| Initiation (prior knowledge, connection, vocabulary) | Discussion question: Have you ever tried to build without the right parts? How did you describe the part you needed? Conclusion: Every trade has its own language. |
| Learning Procedures | Identify different species of wood, describe hard and soft wood, plywood, lumber types, lumber defects, define actual and nominal lumber sizes. Identify fasteners and adhesives used in your shop, read pages: 145-161. |
| Grouping | 4 or 5 Small groups |
| Guided Practice | Identify 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. |
| Instructional Strategies | 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. |
| Closure | 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. Manipulative skills assessments and written evaluations. |

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| Independent Practice | Chapter Check on pages: 160-161. Review Chapter 7 for the next class. |
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