

Carpentry Lesson Plan

Course: Carpentry	Grade: 9-12
Instructor:	CIP Code: 460201
Unit: Power Tools	Title: Fastening and Finishing Tools
<p>Knowledge, Content and skills: Students will be able to: identify the electric drill, screw gun, pneumatic nail gun, belt sander, and random orbit sander; the accessories and the use and maintenance of each. Students will gain knowledge on why power tools are important and what safety measures must be followed while using the equipment.</p> <p>Performance objective: To become familiar with each drill, nail gun and sander by completing the lead up exercises and practicing using the tools and discussing with others. Lead-up exercises for each tool, pages: 128-142</p>	
<p>Competency Standard: 3. Demonstrate use of appropriate personal safety equipment. 10. Demonstrate proper safety and use of commonly used power tools. 44. General Safety: Demonstrate and apply safe practices and procedures in the workplace.</p>	
<p>Common Core: ELA—Reading: 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>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</p>	
<p>Tools, supplies and reference materials: <u>Variable speed electric drill</u> --4 x 4 x 16", (7) 3/8" x 6" dowels, clamps, 3/8" twist bits, tape measure, combination square, scratch awl, masking tape, pencil, (3/8" spade bit, 1x6 and 2x6). <u>Screw gun</u>(with adjustable nose)--scrap 2 x 4, clamps, 1 1/4" construction screws, tip to match screws, electric drill, drill index, scrap oak board or flooring. <u>Pneumatic nail gun</u>--fasteners for your particular model, scrap boards. <u>Belt sander</u>--replacement belts for your model sander, scrap lumber, clamps, straight edge. <u>Random orbit sander</u>-- replacement discs for your model, scrap lumber, clamps. Other items-PPE, air hoses, compressor, extension cords, Career Connection Book 1 Chapter 5 pages: 122-144.</p>	
<p>Methods of instruction: Demonstration on how to identify and use and maintenance of each tool, lecture on safe work habits and respect for tools, reference to the Career Connections Book 1 Chapter 5, and hands-on practice with each tool. Try to have enough tools for each student or small group of students. Depending on the tool quantities in your shop, you could dedicate a station to each tool and then students could be divided into small groups and rotate through each station. Estimated time: 4 hrs. Number of students: 10-15</p>	
<p>Task analysis or activities: Students will work in small groups at shop tables, with all the previously mentioned power tools, working together to complete all the lead-up exercises and helping each other as they progress at their own pace.</p>	
<p>Evaluation: 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 on the power tools should be implemented by the instructor to be sure the student can operate the tool safely and with confidence.</p>	



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Instructors Notes:

Use the Tool Safety and Operation Checklist to score student competency.