

Lesson Plan Title	Power Tools for Cutting and Shaping
Lesson Plan Created by	Zachary DePace Career Connections Outreach Specialist
Grade	9-12
Subject	Wood Technology
Standard(s)	4. Describe safety practices for the following machines: router and miter saw. 9. Identify proper use and function of the following portable power tools: circular saw, saber saw, and router 12. Identify proper use and function of the miter saw.
Time	6 hrs.
Indicators/Objectives	Students will be able to: identify the circular saw, miter saw, saber saw, and router; 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.
Required Materials	Circular saw --1 x 6 x 8', clamps, speed square, combination square, pencil, tape measure. Miter saw--1 x 6 x 8', clamps, speed square, combination square, pencil, tape measure. Saber saw--replacement blades, tools required for blade change on your particular model, square, pencil, template for cutting curves, 1 x 6 x 16" or larger board. Router--wrenches and collets for your model router, Bits-- $\frac{3}{4}$ " straight cutting and $\frac{3}{8}$ " round-over with bearing guide, 1 x 10 x 16", 1 x 6 x 4', clamps, Straight edge jig for dados and rabbets. Other items- PPE, extension cords, Career Connection Book 1 Chapter 4 pages: 87-121.
Initiation (prior knowledge, connection, vocabulary)	Safety is an important part of carpentry. You should not use any tool until you have been trained.
Learning Procedures	Read the chapter, understand the new vocabulary, become familiar with each saw and router by completing the lead up exercises and practicing using the tools and discussing with their peers.
Grouping	Whole group or small groups
Guided Practice	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.
Instructional Strategies	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 4, 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

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	divided into small groups and rotate through 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.
Independent Practice	Answer any questions students have about this chapter. Ask students to review Chapter 5 for the next class.