

# Unit 4: Hand Tools and Portable Power Tools Safety

Content Area: **Industrial Technology**  
Course(s): **Construction Technology I**  
Time Period: **1 marking period**  
Length: **Weeks**  
Status: **Published**

## Unit Overview

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Students will be able to Identify and safely operate Hand Tools and Portable Power Tools.

## Transfer

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Students will be able to independently use their learning to...

-Work with hand tools and portable power tools to build projects in class and then transfer these skills to doing repairs at their home or in the construction or building trades.

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For more information, read the following article by Grant Wiggins.

[http://www.authenticeducation.org/ae\\_bigideas/article.lasso?artid=60](http://www.authenticeducation.org/ae_bigideas/article.lasso?artid=60)

## Meaning

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Students will be able to build projects or repair items at their home or workplace.

## Understandings

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Students will understand that...

-Hand tools and power tools are very useful for creating and repairing things, but they are dangerous and could create an injury if operated incorrectly.

### **Essential Questions**

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Students will keep considering...

-How could I be injured if I operate a Hand Tool or Portable Power tool incorrectly?

### **Application of Knowledge and Skill**

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Students will be able to operate Hand Tools and Portable Power Tools to construct their assigned project, individual project and assigned tasks.

### **Students will know...**

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Students will know...

That a dull tool is more dangerous than a sharp tool.

How to identify a Hand Tool and how to correctly operate it.

Make sure that all tools are clean and in good condition.

Always cut or chisel away from yourself.

The safe use of portable power tools.

### **Students will be skilled at...**

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Students will be skilled at...

The student will be able to select the proper Hand Tool for the task they need to perform and safely operate the tool.

The student will be able to select the proper Portable Power Tool for the task they need to perform and safely operate the tool.

Students will be to apply these skills to projects and tasks.

## **Academic Vocabulary**

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Pneumatic, Bevel, Torque, Wedge, Offset.

## **Learning Goal 1**

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Identification/Safety of Hand Tools in the Construction Technology Lab.

9.3.12.AC.2	Use architecture and construction skills to create and manage a project.
9.3.12.AC.7	Describe career opportunities and means to achieve those opportunities in each of the Architecture & Construction Career Pathways.
9.3.12.AC-CST.2	Describe the approval procedures required for successful completion of a construction project.
9.3.12.AC-CST.8	Demonstrate the construction crafts required for each phase of a construction project.
9.3.12.AC-CST.9	Safely use and maintain appropriate tools, machinery, equipment and resources to accomplish construction project goals.
9.3.12.AC-MO.3	Apply construction skills when repairing, restoring or renovating existing buildings.
9.3.12.AC-MO.5	Plan and practice preventative maintenance activities to service existing buildings.

## **Target 2**

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SWBAT maintain and safely operate every Hand Tool in the Construction Technology Lab.

## **Learning Goal 2**

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Identification/Safety of Portable Power Tools in the Construction Technology Lab.

### **Target 1**

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SWBAT identify every Portable Power Tool in the Construction Technology Lab.

### **Formative Assessment and Performance Opportunities**

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Students will be assessed on assigned project Nesting Tray and Individual Projects they are Constructing.

### **Summative Assessment**

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Written or online test on Identification of Hand Tools and Portable Power Tools and safety.

### **Accommodations/Modifications**

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Students with Accommodations/Modifications will be allowed to retest if they fail or test with a Special Needs Teacher. Students that need accommodations can have the instructor or a student assist them. if the student has already completed the task successfully.

### **Unit Resources**

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You Tube videos, Google Classroom Study Sheets.

### **21st Century Life and Careers**

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CAEP.9.2.12.C.1	Review career goals and determine steps necessary for attainment.
CAEP.9.2.12.C.3	Identify transferable career skills and design alternate career plans.
CAEP.9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures.

CAEP.9.2.12.C.7

Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.

CAEP.9.2.12.C.8

Assess the impact of litigation and court decisions on employment laws and practices.

## **Interdisciplinary Connections**

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Science, STEM