

## General Shop Safety

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### Purpose

The purpose of this lesson is to teach students the importance of proper shop safety.

### Objectives

Upon completion of this lesson, students will be able to:

1. Identify general shop safety rules.
2. Explain and evaluate shop safety scenarios.

### Focus

Show the students safety signs and discuss the importance of safety. Ask, what is the purpose of safety signs? Who are meant for? And discuss why they should be observed. Make it relevant to the students.



## **Lesson Content pt.1**

1. Always wear safety glasses
2. No Horseplay
  - a. Carelessness causes most shop accidents
  - b. Pushing, disobeying rules
  - c. Running
  - d. Playing with tools
3. Shop Layout
  - a. Free-flowing movement
  - b. Ventilation
  - c. All work tables and machines spread out
  - d. Easy access to fire escapes and fire extinguishers
  - e. Have your lumber stored in a safe place
    - i. Away from flames or heated areas
    - ii. Don't stack it in the way of anything
  - f. Never place anything such as projects in front of exits
4. Clean up Procedures
  - a. Put tools in proper places
  - b. Store projects out of the way
  - c. Clean of table surfaces
  - d. Sweep and throw wood scraps and saw dust in garbage can

## **Guided Practice**

Have shop scenarios that the students will be discussing in groups that they will be divided up in.

### **Scenario 1**

The shop is neat and clean. There is good ventilation and plenty of space for each work area. When students begin to work you notice that six students in the class are not wearing their safety glasses.

### **Scenario 2**

The lumber is stacked out of the way by the welder and plasma cutter. All of the work areas are clear of trash and dirt. Ventilation is adequate.

### **Scenario 3**

Two students are playing baseball with a piece of pipe and wadded-up duct tape. Another student is opening a paint can with a screwdriver. Student projects are stacked in front of fire extinguisher.

## **Independent Practice**

Have the students list at least three machines and make notes of the safety precautions that should be observed before using. Also, create a list of some general shop rules they would have if it were their shop.

## **Conclusion**

Review and Questions

## **List of Materials**

Projector

Handouts

Power Point Presentation

## **References**

Agricultural Mechanics Fundamentals

## **Lesson Content pt. 2**

1. Over one-fourth of all shop injuries are caused by the use of hand tools stemming from three main problems:
  - a. Improper use of the tool
  - b. Using the wrong tool for the job
  - c. Using defective tools
2. Precautions to take for hand tools:
  - a. Keep cutting tools sharp
  - b. Don't use splintered, broken, or loose tool handles
  - c. Only use screwdrivers for screws – not chisels, pry bar, etc.
  - d. Keep tools in their proper places
  - e. Don't carry tools in pockets
  - f. Use proper sized tools – no cheater pipes
  - g. Keep tools clean
3. Using Portable Electric Tools:
  - a. Check the tool for three good prongs
  - b. Keep the cord away from traveled areas and rough/hot surfaces
  - c. Don't use around flammable vapors/gases
  - d. Keep hands dry before/during use
  - e. Pull plug, not cord, when removing

## **Guided Practice**

Divide the students into groups of three/four and have them come up with a:

- a. Improper use of the tool
- b. Using the wrong tool for the job
- c. Using defective tools

For a hand tool and for a portable electric tool of their choice – something from the school shop.

**Independent Practice** - Have the students take a short quiz (next page) to see how well they picked up the material.

## Quiz for Tool Safety

### Multiple Choice

Circle the letter of the correct answer.

1. Over \_\_\_\_\_ of all shop injuries are caused by hand tools.
  - a. 95%
  - b.  $\frac{3}{4}$
  - c.  $\frac{1}{4}$
  - d. 80%
  
2. Cutting tools should be kept \_\_\_\_\_.
  - a. dull
  - b. sharp
  - c. away from students
  - d. heated
  
3. Never carry tools in your \_\_\_\_\_.
  - a. pocket
  - b. hand
  - c. truck
  - d. tool belt
  
4. Electrical tools should have a plug with \_\_\_\_\_ prongs.
  - a. two
  - b. four
  - c. one
  - d. three
  
5. Electric hand tools shouldn't be used around \_\_\_\_\_.
  - a. the house
  - b. flammable gasses and vapors
  - c. students
  - d. professional construction workers