

Agriscience Shop Safety

Safety, Live with it!



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Objectives

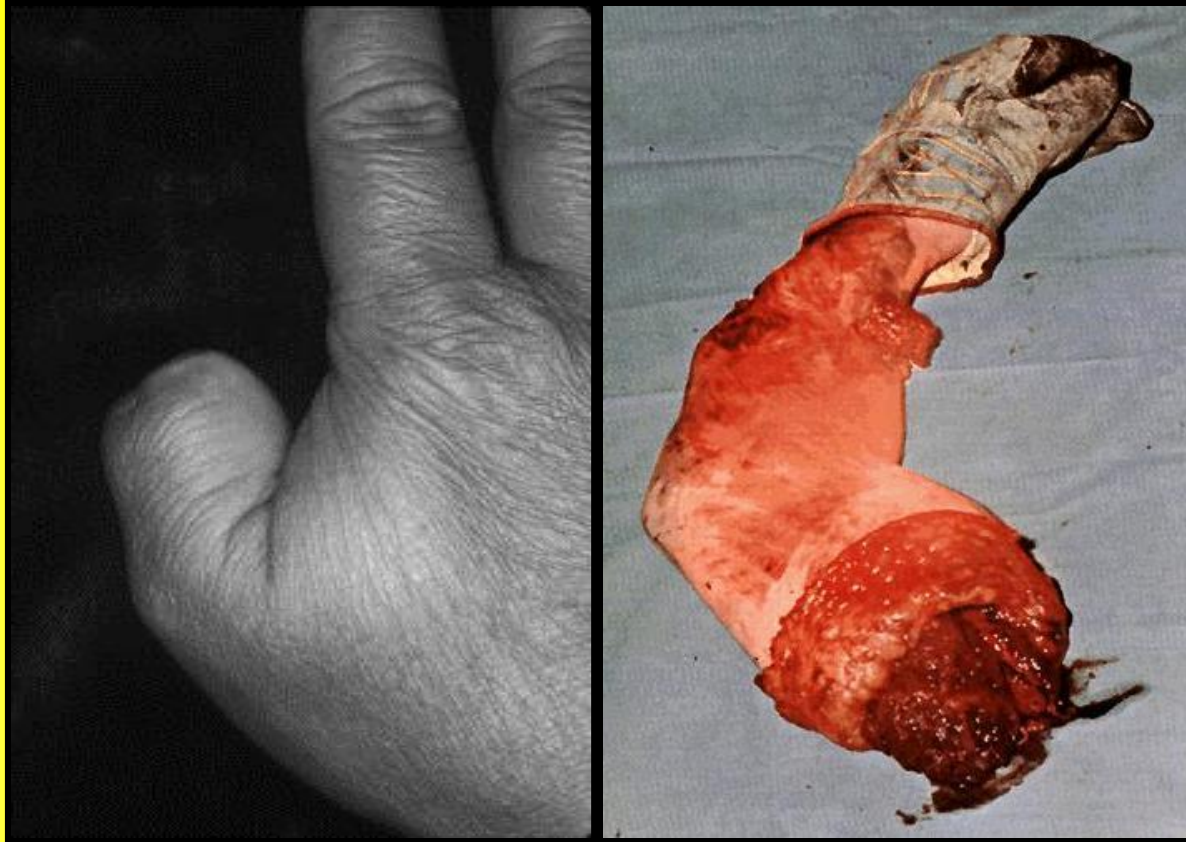
As a result of having completed this lesson, you will know how to:

- Dress properly for shop work.
- Behave in shop area.
- Keep the shop & work area clean.
- Handle or carry tools.
- Use fire extinguishers.
- Lift heavy objects.
- Administer first aid.
- Interpret color codes.

Safety

- What is *safety*?
 - *Safety is preventing injury or loss.*
- Injury & loss can be inflicted on people or their property.
 - *People can suffer cuts & other wounds, injuries to eyes & hearing, loss of appendages, & death from accidents.*

Safety



Don't let this happen to you!!

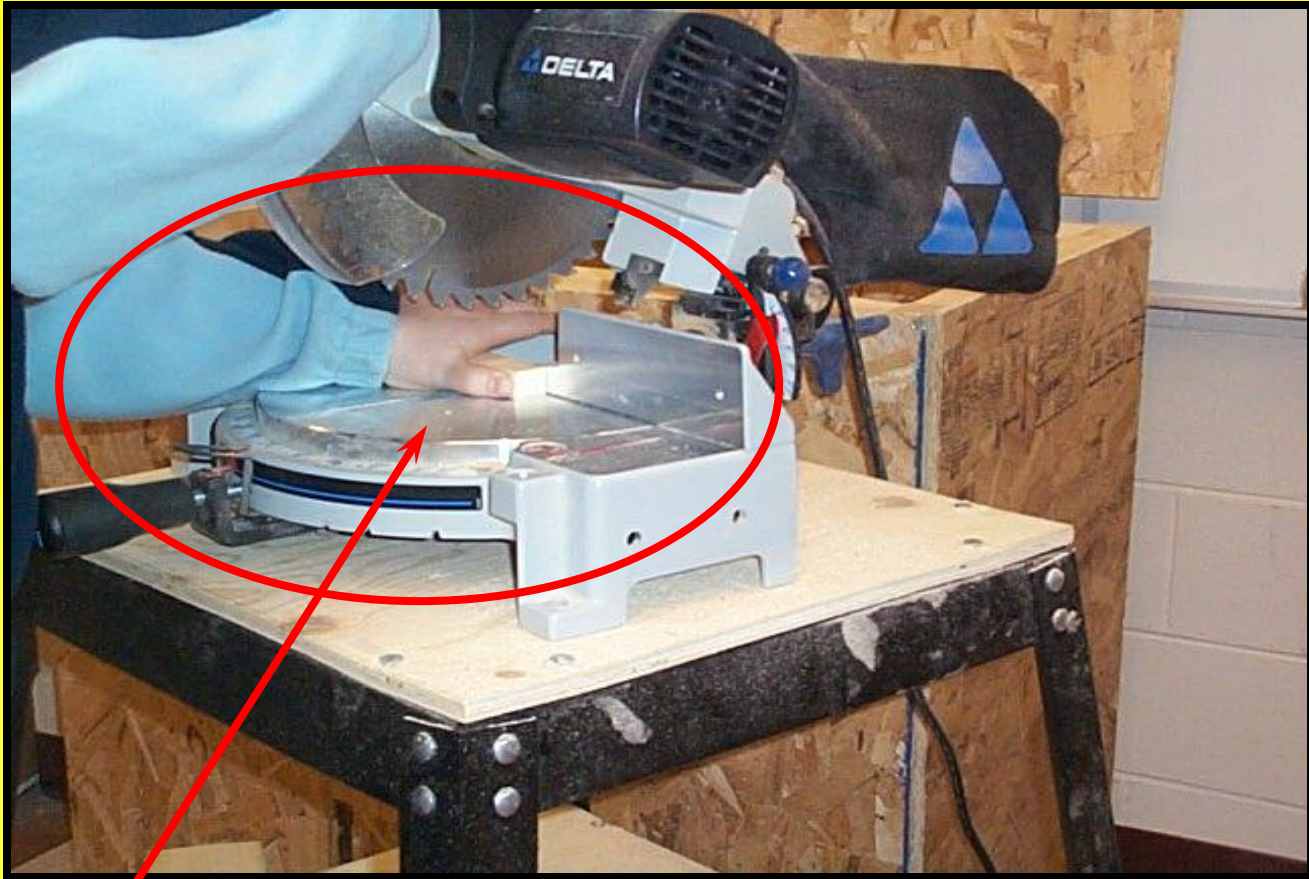
Safety

- After being injured, carpenters often say things like, *“I knew it was a dumb thing to do, but I went ahead anyway”*.
- Younger workers are more likely to be injured than older workers.
- New employees have a higher accident rate than long-time employees.

Safety

- An accident is an event that occurs unintentionally.
- A hazard is a danger where a risk is present.
 - (which is more hazardous, operating a car or computer?)

Safety



Is there a danger here? Yes & there is going to be an accident.

Safety

- Most accidents result from one or more of the following:
 - Failure to follow approved safety guidelines.
 - Using the wrong tool for the job.
 - Failure to wear appropriate personal protective equipment (PPE).
 - Improper use of the tool or machine.
 - Hasty shortcuts.



Safety

- Personal Protection Equipment
 - Gloves
 - Respirators
 - Ear plugs/muffs
 - Safety glasses/shields
 - Steel toed boots

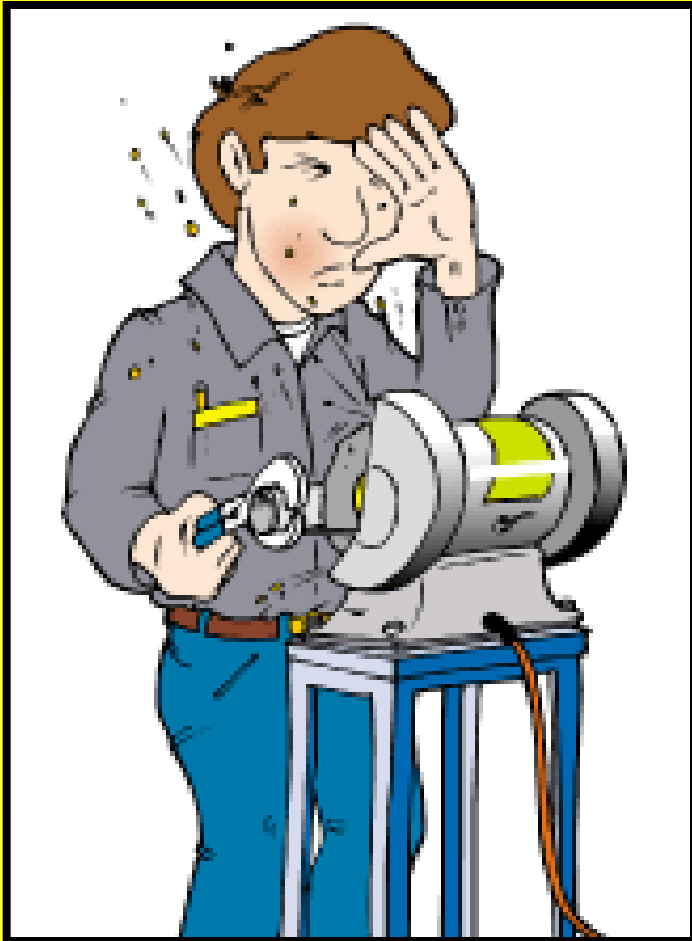


Safety

- A risk is the chance that an accident will occur.
- Carelessness is failing to pay attention to hazards & taking unnecessary risk.



Safety Glasses



- Always wear approved safety glasses when you are in the shop.
- If using a specialty tool wear eye protection for that tool. (welder, torch, etc.)

Safety Glasses



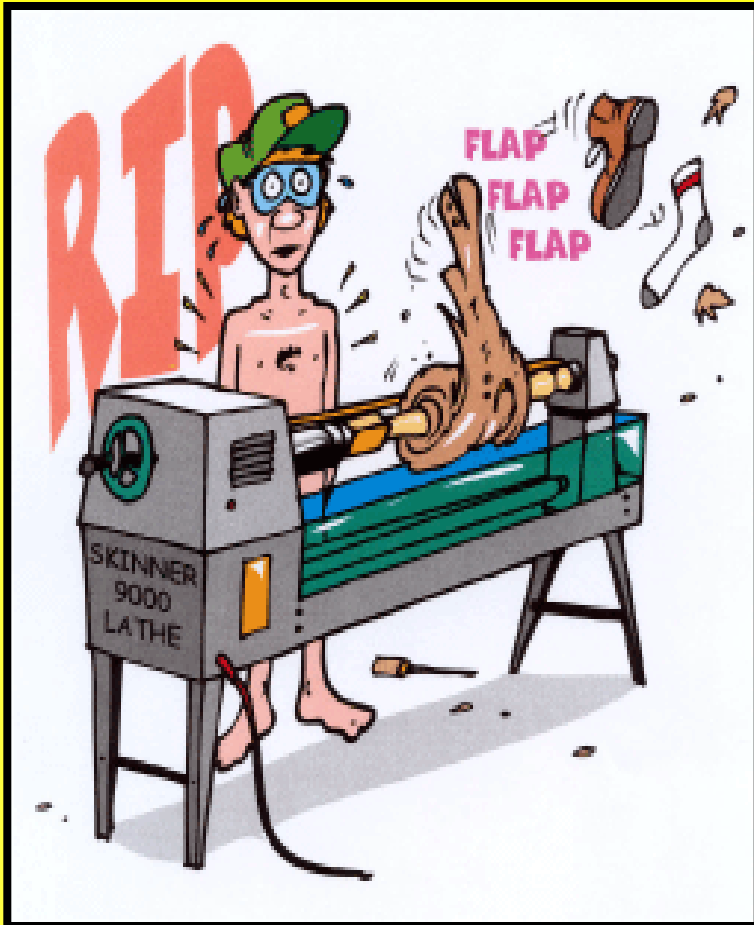
Some jobs require special eye protection.

Safety Glasses



Don't let this happen to you!!

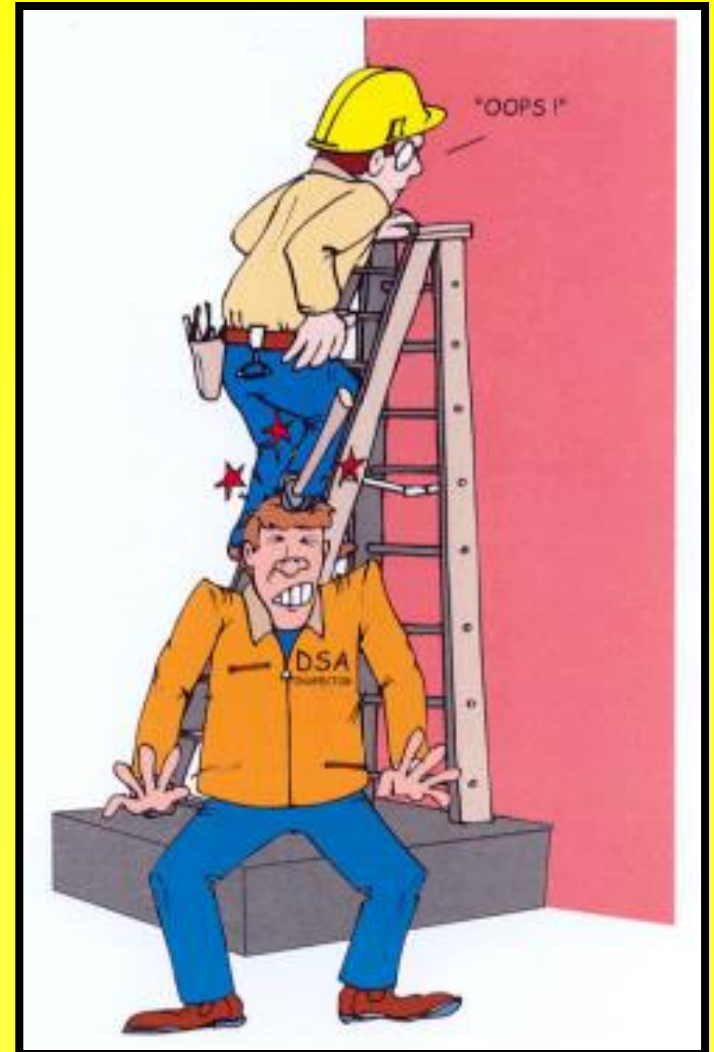
Clothing



- Remove rings & other jewelry before working in the shop.
- Don't wear loose-fitting clothing & keep long hair pulled back.

Safe Work Practices

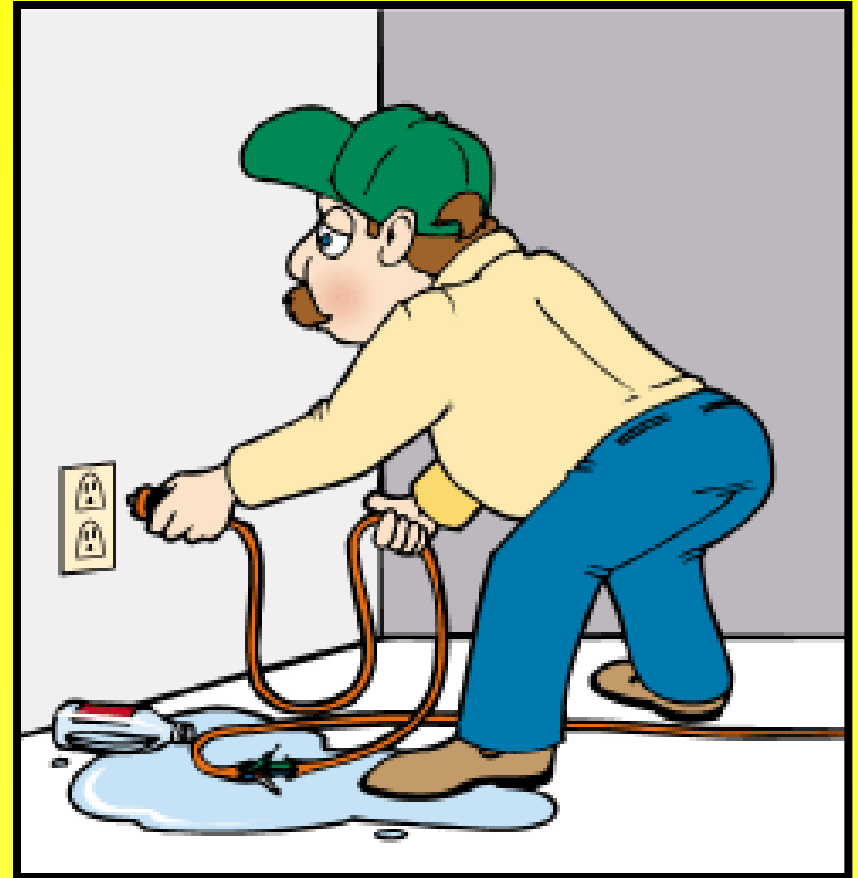
- General Safe Practices
 - Always follow instructions for tools and machines.
 - Use stable footing to maintain your balance.
 - Do not try to use your tools in awkward positions.
 - Tool boxes should never be used as a step ladder.

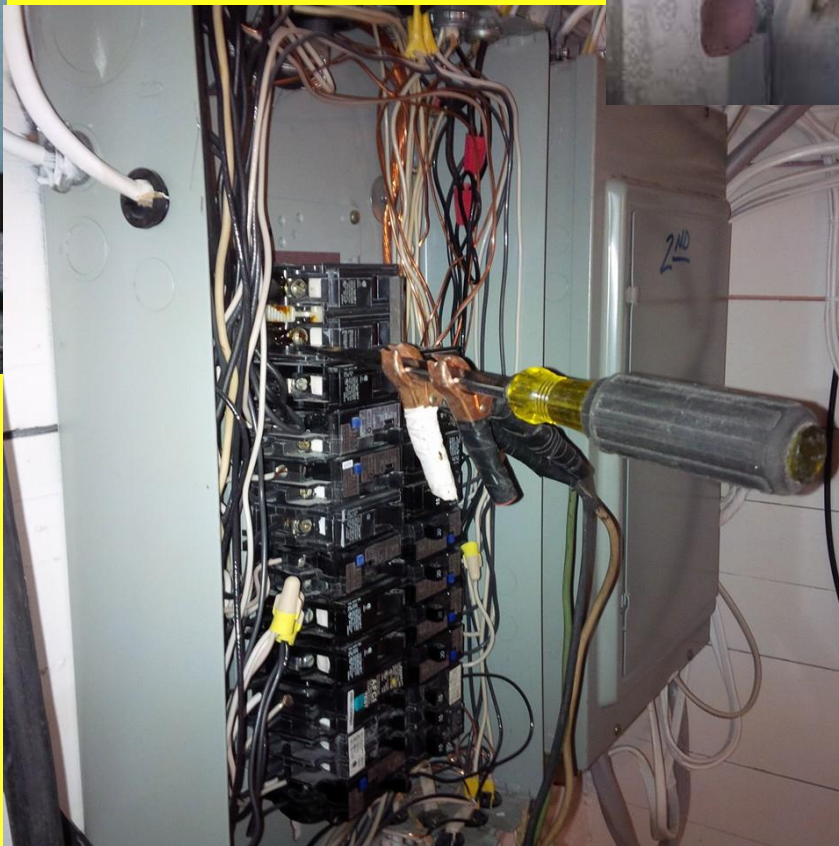
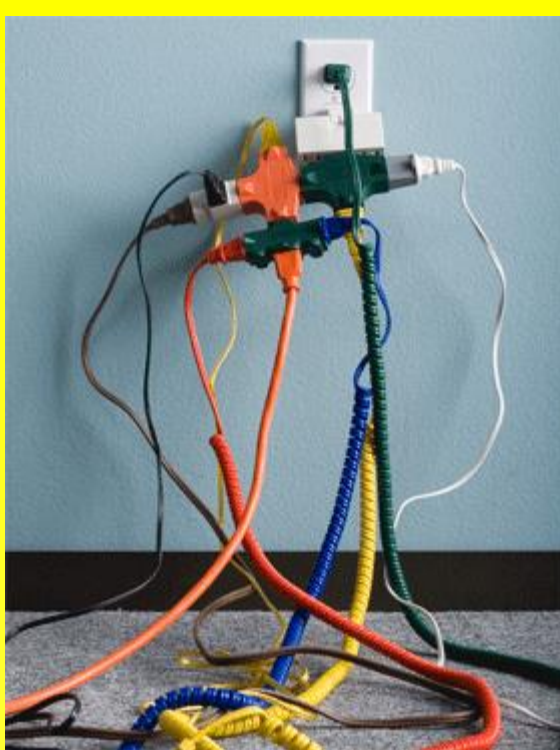




Safe Work Practices

- Before you plug it in
 - Check for loose or frayed cords
 - Only use double insulated or 3 prong cords.
 - Be sure the guard works.
 - Properly tighten nuts & bolts.





Safe Work Practices

- Considerations
 - Use a ground fault circuit interrupter (GFI).
 - Use the tool for the task in which it was designed.
 - Make sure that bits & blades are sharp.
 - Check hose connections for pneumatic tools.



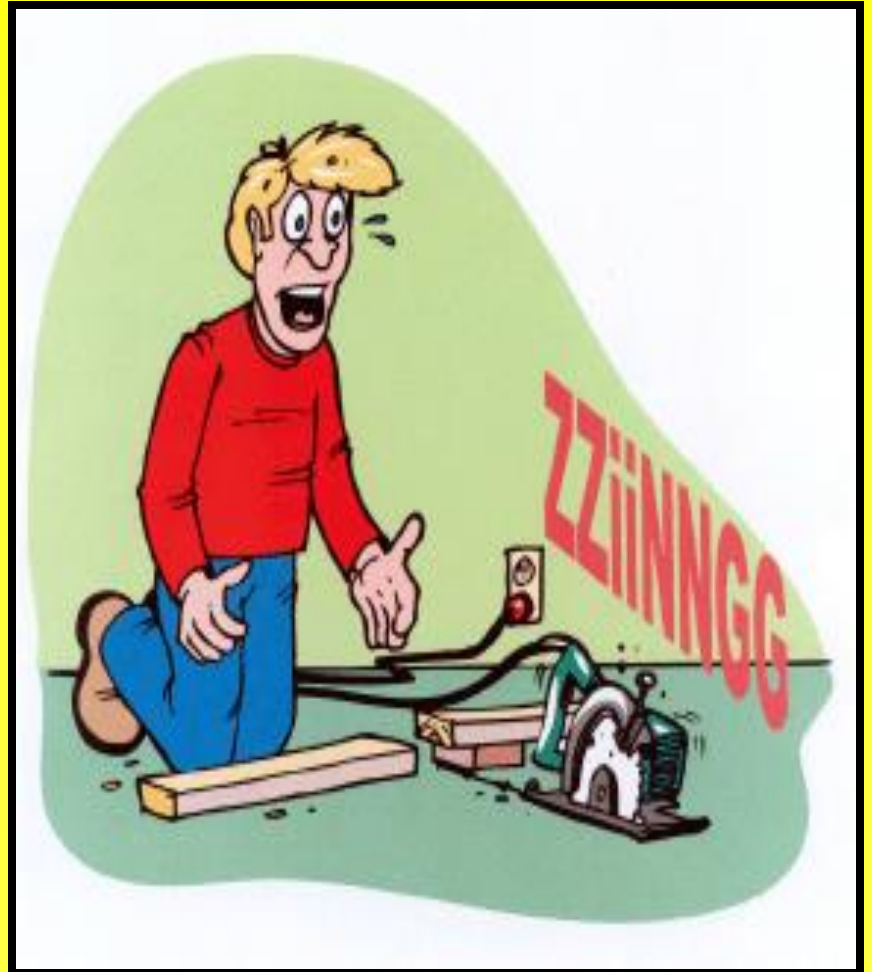
WHEN YOUR CO-WORKER

MAKES ANOTHER DUMB ERROR

memegenerator.net

Safe Work Practices

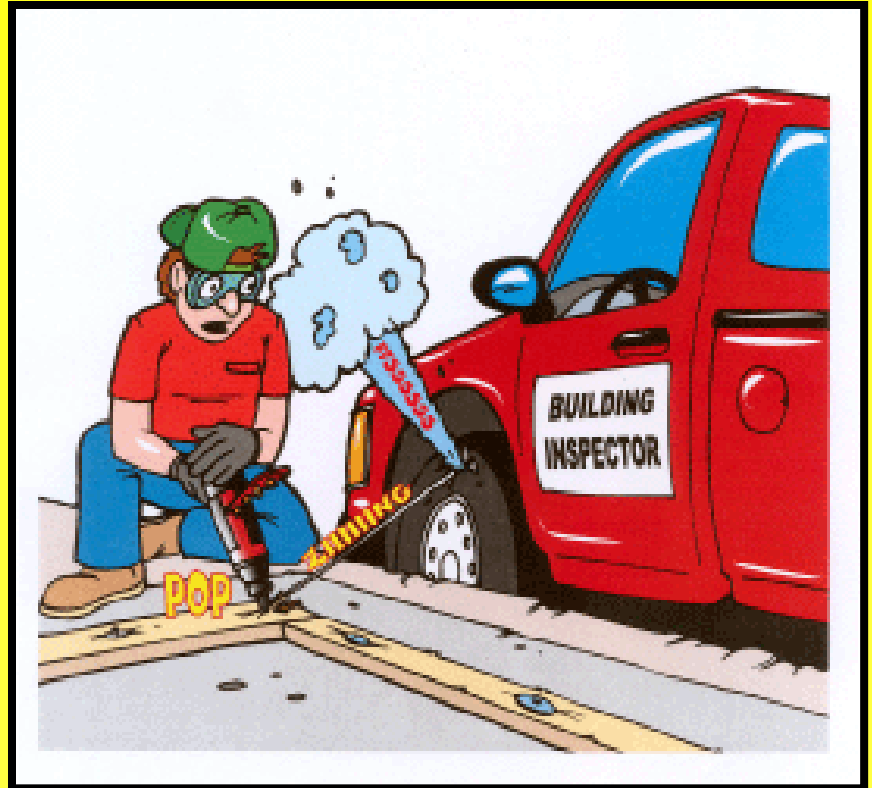
- Precautions
 - Never put your finger on a start button while carrying a power tool.
 - Never alter a tool.
 - Never remove a guard.





Safe Work Practices

- Secure work area
 - Keep tools & other debris off the ground to prevent tripping.
 - Secure work in clamps or devices.
 - Cover all blades and tool bits.
 - If outside secure area with caution tape



General Safety Rules

Physical Safety

- a) Use leg & arm muscles to lift heavy objects.
- b) Test the sharpness of edge-cutting tools on wood or paper, not on your hand.
- c) Be careful in using your thumb as a guide in sawing with a handsaw.
- d) Always cut away from your body when using a knife or other sharp object such as a chisel.
- e) Make sure that your hands are not in front of sharp-edged tools while using them!!!!!!

General Safety Rules

Tool Safety

- a) Place tools in an orderly arrangement w/ cutting edges pointed away from you.
- b) Keep screwdrivers pointed away from you.
- c) Make sure handles on tools are properly installed & are not broken or loose.
- d) Only use tools for their intended purpose.

General Safety Rules

Material Safety

- a) Always fasten or hold wood properly. Use a vice, clamp, or sawhorse.
- b) Put waste lumber in a storage rack or scrap bin.
- c) Put oily or finishing rags in closed metal containers.

Number 1 Rule: Don't Be a Dumb.....



Safe Work Environments

- Clean work area
- Tools kept clean
- Outlined safety zones
- Equipment safety guards installed
- Equipment & power tools grounded properly.
- Equipment regularly serviced
- Organized
- Safety conscious workers

Causes of Accidents

- Falling
- Inhaling
- Electrical contact
- Exposure to heat or cold
- Striking against
- Getting hit
- Getting caught in
- Exposure to fire

Fire Components

- A fire must have the following in order to be a fire:
 - Heat, Fuel, Oxygen
- Fuel= any combustible material that will burn.
- Heat= refers to energy that causes the temp. to rise.
- Oxygen= is a gas in the atmosphere. Must be present for fuels to burn.

FIRE TRIANGLE



Fire Classes

- Class A - Ordinary Combustibles (wood, paper, trash) {water w/pump or gas pressure}
- Class B - Flammable Liquids (fuels, grease, paint) { carbon dioxide}
- Class C – Electrical Equipment {dry chemical}



Water-oil Fire

Water-oil Fire