

COURSE

1

LEAFGREEN TRAINING SYSTEM

Facility Services Division

General Safety Guidelines

FACILITY SERVICES DIVISION

General Safety Guidelines

© Leafgreen Incorporated
1500 Easy Street • Business Division
Keller, TX 76248
Phone 817.471.7050 • Email JLeafgreen@att.net





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Key Learning Objectives and Curriculum Scope

Course 1: General Safety Guidelines will discuss and explain some of the most common workplace hazards and precautions. By the end of the training the employee should have an understanding of potential hazards and a better awareness and appreciation of safety in the workplace.

The General Safety Guidelines course is an instructor driven class that utilizes a blended method and approach in delivering the curriculum and ensuring maximum learning and training transfer. The entire course may be completed in one day or each section may be taught as a stand-alone unit.

I C O N K E Y	
	Resources Needed
	Traditional
	Computer Based
	Hands On

The assigned trainer should review all reference and course material before the instruction day. Icons are used to denote a shift in the learning method.

Instructional Tips for This Manual

The curriculum is divided into sections. Each section is designed to engage the trainee and provide key learning objectives. The class size is 12 people maximum and is intentionally small for instructional purposes. The classroom and simulated instructional area will be used during the course. The material will be covered through lectures with power point visuals, computer based modules, written exercises, and hands on training. There is an optional quiz at the end of each Safe Schools presentation. The instructor should provide immediate feedback to the trainee on any hands on training. By the end of the training each trainee should understand the general safety concepts and how to recognize and prevent basic workplace hazards.



Time Management Structure

The General Safety Guidelines course is a one day course. Each section (topic) has been broken down into instructional increments. Break-out sessions have been included to provide the trainee with an opportunity to apply the knowledge with their peers. The instructor has been given a certain amount of latitude and discretion in group selection and break-out activities. Breaks and Lunch times have been included in the curriculum schedule.

The following schedule has been provided to ensure that all topics are covered and students are engaged for the entire instructional periods.

Curriculum and Instructional Schedule






-  8:00 am to 8:50 am: Section-1
 - 9:00 am to 9:15 am: Break Out Session
 - 9:15 am to 9:30 am: First Break
-  9:30 am to 10:30 am: Section-2
 - 10:30 am to 10:45 am: Break Out Session
 - 10:45 am to 11:00 am: Second Break
 - 11:00 am to 12:00 pm Blended Instruction
-  12:00 pm to 1:00 pm: Lunch
 - 1:00 pm to 1:15 pm: Re-Cap
-  1:15 pm to 2:00 pm: Section 3
 - 2:00 pm to 2:15 pm: Break Out Session
 - 2:15 pm to 2:30 pm: Third Break
 - 2:30 pm to 4:30 pm Activity By Group & Station
 -  Group 1 CBM (1 Hr) Switch to Group 2 Station (1 Hr)
 -  Group 2 Training (1 Hr) Switch to Group 1 Station (1 Hr)
- 4:30 pm to 5:00 pm: Recap and Evaluation

General Safety Orientation

The instructor should welcome the class and introduce themselves. The instructor shall lead a 20 minute lecture, 20 minute power point presentation, and approximately 5 minutes for questions.

The topic of General Safety is a broad subject that may be customized to suit the current work environment or to emphasize specific issues of focus. The provided outline for the lecture along with the power point slides creates a fluid structure that encourages the instructor to stress key points. The automated power point presentation is from the resource Safe Schools. The Safe Schools presentation will reinforce all of the general topics discussed during the lecture. After the two presentations the instructor should ask the class questions and encourage responses.

KEY ITEMS

-  Laptop/ Wi Fi
-  Power Point/Lecture
-  Safe Schools Video
-  Hand Out
-  Plastic ABC magnets

How to Customize This Lecture

Think of your target audience. If you have a large custodial group you will focus on items differently than you would if you were addressing a general maintenance team. Be sure to touch on key points that you think might be relevant to the trainees. Although this course is a generalization it can still be customized by adding or subtracting various slides of your choosing. *Be warned, if you are gathering key performance measures make sure that all training is uniform.*



Power Point Notes

Each power point slide has been copied into the student manual. The students may follow along in the book or screen and make notes in the book for future reference. Encourage note taking or highlighting to **reinforce** the **visual** and **verbal information** presented in the power point presentation.

Don't just click the buttons, pause the video and **participate**. Bring clarity and focus to the material.

What is OSHA?

Handout #2

Job Safety and Health It's the law!

OSHA
Occupational Safety
and Health Administration
U.S. Department of Labor

EMPLOYEES:

- You have the right to notify your employer or OSHA about workplace hazards. You may ask OSHA to keep your name confidential.
- You have the right to request an OSHA inspection if you believe that there are unsafe and unhealthful conditions in your workplace. You or your representative may participate in that inspection.
- You can file a complaint with OSHA within 30 days of retaliation or discrimination by your employer for making safety and health complaints or for exercising your rights under the *OSH Act*.
- You have the right to see OSHA citations issued to your employer. Your employer must post the citations at or near the place of the alleged violations.
- Your employer must correct workplace hazards by the date indicated on the citation and must certify that these hazards have been reduced or eliminated.
- You have the right to copies of your medical records and records of your exposures to toxic and harmful substances or conditions.
- Your employer must post this notice in your workplace.
- You must comply with all occupational safety and health standards issued under the *OSH Act* that apply to your own actions and conduct on the job.

EMPLOYERS:


- You must furnish your employees a place of employment free from recognized hazards.
- You must comply with the occupational safety and health standards issued under the *OSH Act*.

This free poster available from OSHA –
The Best Resource for Safety and Health

[Print Note: Check "Print Scaling" setting, original is 8.5"x14"]



Explain OSHA Handout

 In this manual, this section will be used to discuss the OSHA handout and in the Student manual this section is blank and simply titled NOTES. Stress the importance of the employees' rights as you review the document. Engage the class by following up each bulleted statement with a question.

QUICK FACT No matter what industry you work in, applying safety tips can prevent accidents.

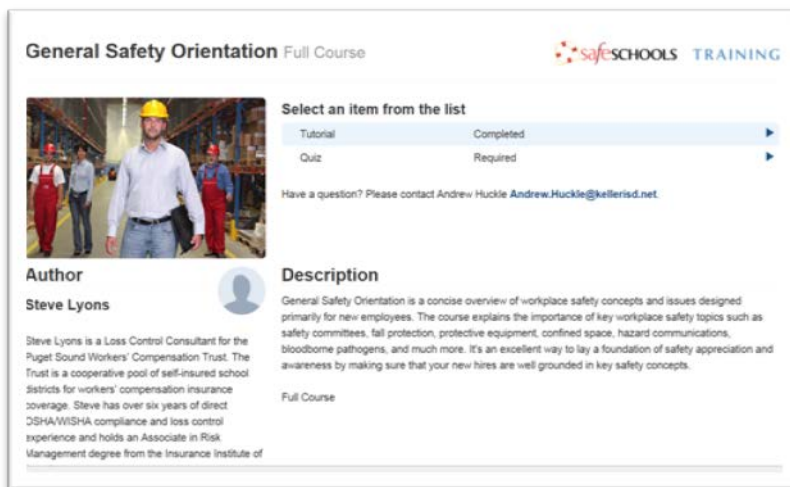
- Discuss Safety Responsibility; **we all have a part to play in safety.**
- Communication; report all unsafe working conditions or potential hazards in the workplace environment

Safe Schools: General Safety Video

NOTE: Let the class know that there is a "group" quiz at the end of the presentation.

<https://kellerisd-tx.safeschools.com/login>, first login. Click on the **Extra Training** tab. Scroll down to the **Environmental** section. Select the **General Safety Orientation** icon. Select **Full Course**. Select **Tutorial**. Presentation will play. At the end of the video select **Quiz**.

Begin Power Point Video Presentation



General Safety Orientation Full Course

safeschools TRAINING

Select an item from the list

Tutorial	Completed	▶
Quiz	Required	▶

Have a question? Please contact Andrew Huckie Andrew.Huckie@kellerisd.net.

Author
Steve Lyons

Steve Lyons is a Loss Control Consultant for the Puget Sound Workers' Compensation Trust. The Trust is a cooperative pool of self-insured school districts for workers' compensation insurance coverage. Steve has over six years of direct OSHA-WISHA compliance and loss control experience and holds an Associate in Risk Management degree from the Insurance Institute of

Description

General Safety Orientation is a concise overview of workplace safety concepts and issues designed primarily for new employees. The course explains the importance of key workplace safety topics such as safety committees, fall protection, protective equipment, confined space, hazard communications, bloodborne pathogens, and much more. It's an excellent way to lay a foundation of safety appreciation and awareness by making sure that your new hires are well grounded in key safety concepts.

Full Course

Purpose of Orientation

This orientation course is offered to familiarize you with key safety and accident prevention precautions for your district. It is the district's goal to keep a safe and healthy work environment. The elements of this course cover a broad spectrum of areas--all designed to prevent accidents and injuries. Taken individually, the course elements have minimal effect, but as an integrated program, and with the support of employees at all levels, it can reduce the frequency and severity of job-related injuries. Please take some time to read through this information carefully. After completing this training, ask your supervisor to answer any questions you might have.



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Employer Responsibilities

- The **employer** is responsible to provide a safe and healthy workplace free from recognized hazards
- Establish, supervise, and enforce safety rules
- Provide the required safety training to all employees
- Ensure that personal protective equipment is worn when tasks dictate
- Conduct an investigation of all accidents, regardless of severity



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Employee Responsibilities

- The **employee** is required to know and comply with all safety rules and procedures
- Immediately report all accidents to your supervisor
- Identify and report all potential hazards
- Play an active role in creating a safe and healthy workplace
- Use common sense while performing your job and do not take shortcuts



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Safety Policy

This district is dedicated to providing a safe and healthful work environment for all district personnel. It is our goal to reduce the frequency and severity of accidental injuries by providing our employees with safety information and appropriate safety training as a means of protecting employee welfare.



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Safety Rules

- Safety Rules are established to reduce the frequency and severity of accidental injuries. All accidents are preventable. It is your responsibility to follow all safety rules pertaining to your job.
- Please ask your supervisor for specific safety rules that pertain to your job.
- All safety rules pertain to employees using common sense and being aware of the hazards of their work environment.
- Failure to follow safety rules could result in disciplinary action.



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Accident Reporting/Investigation

- An **accident** is a sudden, unintentional or unplanned event or happening that occurs unexpectedly, which may or may not cause bodily injury or property damage, but has the potential to do so.
- Report all accidents to your supervisor.
- If you are injured on the job and seek medical attention by a physician, please contact the appropriate district official and follow the district procedures for accident and injury reporting.



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First Aid Requirements

The district will provide first aid training to an appropriate number of employees. Please check with your site supervisor regarding first aid training.

- General first aid guidelines provide that *First Aid Kits* will be available for employee use.
- Please check with your site supervisor for the location of your kit.



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Safety Committee

The district's **safety committee** is composed of a cross-section of employees, representing various facets and functions of the district. The main purpose of the committee is to monitor the effectiveness of safety policies and procedures. It accomplishes this by:

- Reviewing inspection reports from outside agencies
- Reviewing accident investigations to ensure corrective actions have been taken
- Investigating any hazards reported to them by employees
- Providing safety information and safety meeting minutes to be posted on all district safety bulletin boards
- Conducting periodic facility inspections



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Safety and Health Training

Ongoing safety and health education programs will be provided for all employees in an effort to increase awareness of accident causation factors, to improve morale by demonstrating the district's concern for the safety of their employees, and to promote acceptance of safety and health regulations by presenting accident prevention as a positive, desirable, and integral part of all activities.



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Emergency Actions

All employees will be provided training on emergency actions during the employees' safety orientation or transfer to a new site. The emergency action plans developed for each location will be used as a training guide. Here are some important points to remember:

- Know your escape route in the event of an emergency (fire, earthquake, etc.). Learn your emergency evacuation procedures and participate in fire and emergency evacuation drills.
- Know the location of emergency equipment (fire extinguishers, fire alarm pull boxes, natural disaster kits, etc.).
- Become familiar with the district's emergency preparedness procedures that address a variety of emergency situations and the appropriate actions to take.
- Please check with your supervisor for the location of your posted emergency escape route.



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Hazard Reporting

A hazard is an accident waiting to happen! Please take some time to think about the hazards that you encounter at work on a daily basis. Sometimes an accident does not result in an injury. This type of accident is commonly called a *near-miss*. A near-miss should be reported to your supervisor immediately. Your supervisor will investigate the incident and assess for corrective action.

- It is the employees' right and responsibility to report any unsafe act, condition, or procedure that they encounter.
- Report all hazards to your supervisor in writing or verbally.
- If possible, all hazards will be corrected at the site level. Some hazards may require further assistance from your maintenance department for resolution.
- Hazard reports will be reviewed by the safety committee.



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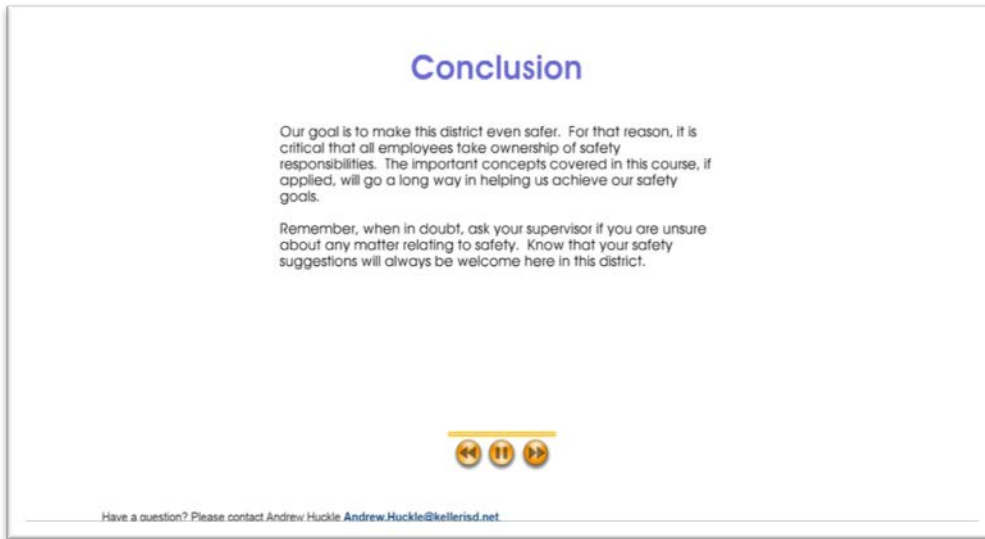
Hazard Communications

Hazard Communications are a series of safety precautions to ensure that employees are properly informed of the chemical hazards associated with products used in their work areas. This is known as the workers' *Right to Know* standard for chemicals in the workplace. In general terms, this standard states that:

- Employees will have access to MSDS (Material Safety Data Sheet) information for all chemicals used in the workplace.
- Employees will be trained on proper use of personal protective equipment associated with the chemicals they are using.
- Required personal protective equipment will be provided free of charge.

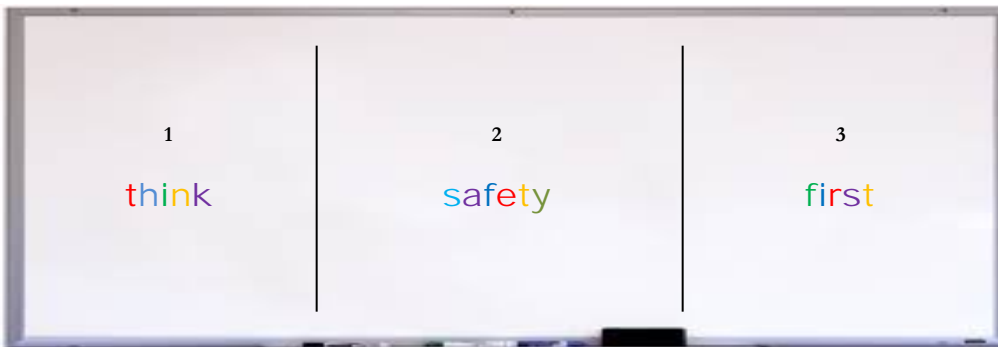
Please Note: Employees are prohibited from bringing household chemicals to work. Please check with your supervisor before using any consumer-formulated cleaning products at work.





Breakout Session: Engagement Opportunity

👉 Divide the trainees into three groups. Divide the whiteboard into thirds by drawing two vertical lines



THE PIECES: the three sandwich bags labeled 1, 2, and 3 each contain a word to make the phrase, “think safety first”. Bag 1=think, bag 2=safety, and bag 3=first. Each group receives a bag that correlates with their group number. Each group solves their word and places it on the board.

The Instructor tells the **trainees** that safety is everyone’s **responsibility**. Teamwork and awareness create safe environments. Discuss.

Fire Extinguisher Safety

The instructor should refocus the class and begin the session. The instructor shall lead a 20 minute lecture, 15 minute power point presentation, and approximately 10 minutes for questions.

The topic of Fire Extinguisher Safety is a key factor in educating employees on the basic use and guidelines for using a basic piece of fire suppressant equipment such as a fire extinguisher. The provided fire extinguisher literature should be discussed by the instructor. A Fire Statistic's hand out should be passed out and reviewed. This material will be reinforced by the safe schools video : Fire Extinguisher Safety.

KEY ITEMS

 Laptop/ Wi Fi

 Lecture

 Safe Schools Video

 Fire Extinguisher

 Hand Out


 Dry Erase Markers:

red, blue, green,

yellow, and black

How to Customize This Lecture

Training is a continuous process and the curriculum may be adjusted to reflect or emphasize real world events. The first part of this section is some basic fire extinguisher facts and techniques. However other articles, factsheets, or relevant videos may be substituted to the curriculum. Engage students by relating or connecting the information to them. *Be warned, if you are gathering key performance measures make sure that all training is uniform.*

 **Fire Extinguisher Use and Question:** Engage students while reviewing the provided fire extinguisher tips and information.



Power Point Notes

The slides from the Safe Schools Fire Extinguisher safety presentation has been provided for trainees to take notes. Although the presentation is playing feel free to pause the video and engage the class-ask questions.

FIRE EXTINGUISHER SAFETY

THE Q & A SERIES

**The “Low Down”
on Using FIRE
EXTINGUISHERS**



Published by the Texas State Fire Marshal
and the Texas Department of Insurance
April 2012

Q: Once activated, how long will an extinguisher operate?

A: You will only have about 15-20 seconds of use once you begin to disperse the extinguishing agent.



Q: When is a fire too big to use an extinguisher?

A: When a fire is bigger than “you,” then DO NOT attempt to put it out. Get out of the area and call 911 immediately.



Q: How often does an extinguisher need to be inspected?

A: At least once a year, and by a technician licensed by the State Fire Marshal's Office.

Try this: The instructor reads the question. **Choose** a **trainee** to read the corresponding answer. Engage the other trainees by asking questions or for their opinions.

FIRE EXTINGUISHER SAFETY

Q: Are all extinguishers the same?

A: No. There are several types and sizes, all based on the type of fire they are designed to extinguish:



Class A fires involve ordinary combustibles like paper, wood, cloth, and most plastics.



Class B fires involve flammable liquids such as gasoline, oil, and solvents.



Class C fires involve electrical equipment including outlets and wiring.



Class D fires involve combustible metals like magnesium, aluminum, sodium, and potassium.

K

Class K fires involve combustible cooking elements such as animal or vegetable oils and fats.

Q: Why can't I use any extinguisher on any fire?

A: Different types of fires require different forms of extinguishing agents.

Some extinguishers contain extinguishing agents that will work on a variety of fires. Look for the classes clearly marked on the label. Extinguishers that can be used on multiple types of fires are typically labeled "multi-purpose-ABC."



Q: Where should the extinguishers be located?

A: By law, extinguishers must be conspicuously located and readily accessible for immediate use in the event of a fire. Extinguishers must be distributed in such a way that the amount of time needed to travel to their location and back to the fire does not allow the fire to get out of control.

Try this: The instructor reads the question. **Choose trainee's** to draw the symbol on the whiteboard with the same color pen. Have each trainee explain what each symbol means. Engage the other trainees by asking questions or for their opinions.

FIRE EXTINGUISHER SAFETY

P.A.S.S.

Q: How do I use an extinguisher?

A: Always follow the **P.A.S.S.** acronym:

PULL the pin.

AIM at the base of the fire.

SQUEEZE the lever.

SWEEP the nozzle from side to side.

① HOLD UPRIGHT
PULL RING PIN



② START BACK 20 FEET
AIM AT BASE OF FIRE



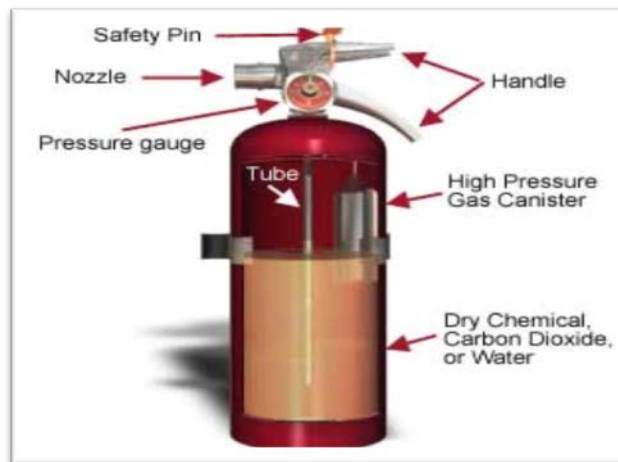
③ SQUEEZE LEVER
④ SWEEP SIDE TO SIDE



Safe Schools: Fire Extinguisher Safety


Login to Safe Schools and select the Fire Extinguisher Safety presentation.

Show the class the fire extinguisher. Ask if trainees have ever used a fire extinguisher before and if so what happened? Demonstrate the steps discussed in the previous exercise. Have them explain what P.A.S.S. means. Begin the Safe Schools Fire Extinguisher Safety video and remind trainees that any point during the video we may pause and discuss questions



Begin Power Point Video Presentation

Fire Extinguisher Safety Full Course safeSCHOOLS TRAINING




Select an item from the list

Tutorial	Required	▶
Quiz	Required	▶

Have a question? Please contact Andrew Huckle Andrew.Huckle@kellerisd.net.

Author
Mike Peterman



Description
This course gives an overview of the fundamentals of proper fire extinguisher use.
This version is designed for all school employees.

Mike Peterman is a Cincinnati Fire Department Official and a liaison to the Cincinnati Public Schools for development and Code consultation. He has served on teams including Hazmat Unit, Bomb Squad, Firefighter, and Emergency Medical Technician. Mike has also completed extensive coursework with the US EPA, the NFPA, the US DOJ, and the Ohio Dept. of Commerce.

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Introduction



A common reaction to a fire is to throw water on it to put it out. Sometimes, however, this is not the right way to fight the fire. In fact, in some cases, this method of extinguishing a fire could make things much worse.



Introduction

One of the key reasons fire safety has improved in schools over the years has been the role of training. And a critical component of every school's safety plan is the training of staff on the proper use of fire extinguishers.



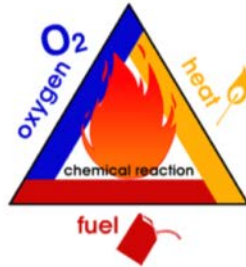
© The photo above is from the United States Department of Agriculture.



Have a question? Please contact Andrew Huckle Andrew.Huckle@kellerisd.net.

Introduction

Fire Triangle



In order for a fire to occur, three things must be present.

- 1) OXYGEN to sustain combustion
- 2) HEAT to reach ignition temperature
- 3) FUEL or combustible material



Have a question? Please contact Andrew Huckle Andrew.Huckle@kellerisd.net.

Fire Classifications

Fires are classified by the type of fuel that is burning. Using the wrong type of fire extinguisher on a fire can make the situation much worse. This is why it's extremely important to understand the five classifications of fire and fuel, as determined by the National Fire Protection Association (NFPA).



Have a question? Please contact Andrew Huckle Andrew.Huckle@kellerisd.net.

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Fire Classifications



Class A: Solids that are not metal, such as wood, paper, plastics, and cloth.



Class B: Flammable liquids such as grease, gasoline, oil, acetone. This class includes flammable gasses.



Class C: Electrical fires consist of electrically energized equipment that is plugged into an electrical circuit.



Class D: Metals like potassium, sodium, aluminum, and magnesium. These fires require Metal-X, foam, and other special fire extinguishing agents.



Class K: Kitchen fires. The class was added to the NFPA portable extinguishers Standard 10 in 1998.



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Types of Fire Extinguishers

Different types of fire extinguishers are available to combat the different classifications of fires. The three most common extinguishers are:

- Water (APW)
- Carbon Dioxide (CO₂)
- Dry Chemical (ABC, BC, DC)



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Using a Fire Extinguisher

An easy way to remember how to use a fire extinguisher is by using the acronym "PASS."

PULL
AIM
SQUEEZE
SWEEP



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Using a Fire Extinguisher

AIM the extinguisher at the base of the fire.

Be sure to aim the extinguisher at the fuel of the fire. Aiming at the flames will cause the extinguishing agents to fly right through and have no effect on the fire.

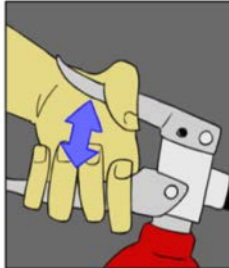


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Using a Fire Extinguisher

SQUEEZE the handle of the fire extinguisher.

Squeezing the handle will depress a button that releases the pressurized contents inside a fire extinguisher.



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Using a Fire Extinguisher

SWEEP the extinguisher from side to side.

Start from a safe distance of approximately 8-10 feet and slowly move closer to the fire while trying to put it out. Use back and forth "sweeping" motions with the extinguisher until the fire is completely out. Once extinguished, keep a close eye on the area in case of re-ignition.



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Checkpoint

- ✓ Fires of all sizes can be dangerous. Be sure to know where fire extinguishers are located in your building and be aware of what type of extinguishing agent is contained in each one.
- ✓ Only try to put out a fire with an extinguisher if you know what is fueling the fire and you have the appropriate equipment to do so.
- ✓ If the fire is spreading rapidly or you are uncomfortable in the situation, it's best to evacuate the building and wait for the fire department to arrive. Where possible, evacuate the building utilizing an organized or designated escape route.

continue ▶

◀ progress ▶▶

Breakout Session: Engagement Opportunity

- ✎ Divide the trainees into three groups. Assign each team a colored side of the triangle (Blue, Orange, or Red).



THE OBJECTIVE: Each team is responsible for drawing their side of the triangle on the whiteboard. Each team will briefly discuss what their color represents and how it is associated with fire.

The Instructor tells the **trainees** that by eliminating any one of the Fire Triangle sides with the appropriate fire extinguisher will eliminate the fire.

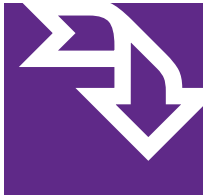


How to Use This Section:

A *basic structure* and topics have been provided for the instructor(s). **Creativity** and engagement of trainees are key components of this section. **Education** is messy and fun sometimes but above all both the instructor and trainee(s) need to be *involved* and *participating*. The training room is a stage and the audience is the trainee(s) so be sure to project your voice, make eye contact, and be slightly bigger than life. Start the training with a game/demonstration to connect with the trainee(s). The one provided is called, *Job Site Safety: A Bitter Pill to Swallow* by Ray Peterson (<http://www.vista-training.com/blog/article/job-site-safety-a-bitter-pill-to-swallow>).

Note

Read the following article in its entirety. Be comfortable with the material and make it your own. Use the language you are comfortable with and follow through with the presentation.



Fun But Flawed: FYI

Although this little game (great ice-breaker for a training session) references the theory behind **Heinrich's Pyramid** (*not something which is really valid in reality* – do a search on this site for “Heinrich” and you will find numerous articles explaining what I mean), ignoring that, it does make a useful point about hidden hazards, complacency, conditioning and relying on good luck!

Use the pill bottle with 50 or so artificial sweetener pills.

JOB SITE SAFETY: A BITTER PILL TO SWALLOW

On the typical job site, workers often get in the habit of overlooking safety risks. *"I've done it this way for the last 20 years and I've never gotten hurt, so I never will get hurt doing it,"* they rationalize. Unfortunately, this kind of logic is dead wrong.

That's because each incident on a job site is the result of dozens of root causes and contributing factors coming together into a single moment in time. Not all of them were present the last 100 times they performed this task, but what if today is the day when a critical mix of factors falls into place to cause a fatality or a debilitating injury?

A savvy instructor once shared a clever and devastatingly memorable demonstration of the risks we so often take for granted on the job site. He held up a wide mouth jar with 330 small pills in it. He told the workers they were placebos - sugar pills - and he offered anyone in the audience \$5 to

take one of them. Several hands shot up as audience members saw a quick chance to make five bucks.

But before the instructor started to pass out the pills he said, *"By the way, I should tell you that there is one pill in here that will kill you. It will kill you rather quickly and be painful for only a little while, but there is no antidote. If you happen to get this one pill, it's all over."* Every hand in the room came down and stayed down, despite some coaxing by the instructor and an offer to increase the reward to \$10.

He went on to explain that this little exercise was based on a statistic published by the National Safety Council. The facts are that for every 330 chances you take at work, 29 of them will result in an "incident." It may be a scraped finger or shin or a bump on the head or maybe even a cut requiring stitches. But 1 out of 330 chances you take will result in a fatal, life threatening or possibly permanently disabling injury.

The audience flat-out refused to take that single chance, regardless of the incentive, when they understood it could kill them. No one had to say to them, *"Don't take one of those pills. It could kill you!"* They made that decision on their own. Every single person took responsibility for their own actions once they understood the potential consequences.

Remember: Each time you take a chance on the job site, you use up a "pill." No one knows when the "killer pill" is going to show up. Take responsibility every day for your own safety. Watch out for unsafe work conditions and report them to a job foreman or site superintendent.

If somebody gets hurt or killed due to a situation you recognized and didn't act on, saying, *"It wasn't my job to tell them"* won't wash. It may help ease your conscience, but it won't bring the dead person back or make the paraplegic walk again. And you're going to wake up a lot of nights reliving the tragedy and blaming yourself for not having the guts to speak up or act.



WHAT'S WRONG WITH THIS PICTURE?

🖥️ Use the computer and projector to display the following pictures. Open discussion-engage trainees:

1. Who thinks this is right? Is this a **hazard**?



2. Was this safe? Were they following the **safety guidelines**?



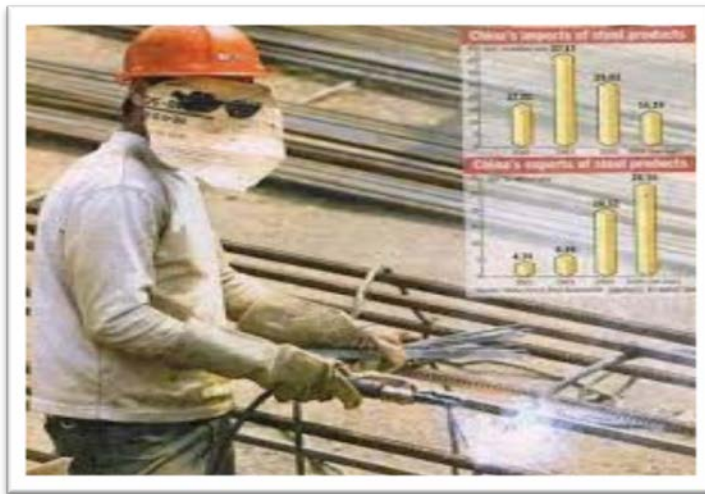
3. What are they thinking? Would you do this?



4. This is not even in the same ballpark as safe? Would you risk yourself?



5. Is this an OSHA approved face shield? Do you think a paper mask is protective when welding?



If you choose to format more than one paragraph, Word will automatically number the paragraphs.

General Safety Basic Fact Sheet and Review

Safety is everyone's responsibility and right. Safe working conditions benefit both the employee and employer. Pass out the *General Safety take away sheet* (located on the next page) and briefly touch on the key points.

Quick Review: time to briefly recap the information covered so far. This will help reinforce the transfer of learning

1. **General Safety Orientation:** cover the basic components of a safety program. Employee and Employer responsibilities, accident reporting, hazard reporting, and having safety awareness. Talk about OSHA.
2. **Fire Extinguisher Safety:** engage trainees to discuss the different fire extinguishers. What is P.A.S.S.? Discuss the fire triangle.

Be Positive!

The course is over half-way through so now is the time to be positive. Let the trainees know how well they are doing and remind them that *safety is important* because each of *them is important*.

LUNCH BREAK: ONE HOUR

Dismiss class for lunch and plan on finishing strong.

General Safety

All power tools can be dangerous if both general and tool specific safety instructions are not followed carefully. General safety instructions apply to all power tools, both corded and cordless.

Start with a Safe Work Area



Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.

Do not operate power tools in explosive atmospheres, near flammable liquids, gases, or dust. Power tools create sparks, which may ignite the dust or fumes.

- Keep bystanders, children, and visitors away when using a power tool. Distractions can cause you to lose control.



Electricity can be Dangerous

Grounded tools (three pronged cords) must be plugged into a properly grounded installed outlet. Never remove or cut off the grounding prong or modify the plug in any way. Do not use any adapter plugs.



Double Insulated tools have a polarized plug (one blade is wider than the other.) This plug will fit into an outlet only one way. Do not change the plug in any way.



Do not use AC only rated tools with a DC power supply.

Store battery packs away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects. These things can make a connection from one terminal to the other, shorting the battery terminals together and causing burns or fire.

- When using a power tool, don't touch grounded surfaces such as pipes, radiators, ranges and refrigerators. There is a higher risk of electric shock if your body is grounded.

GFCI

In damp locations, only plug your tool into a Ground Fault Circuit Interrupter (GFCI). If the work area does not have a permanent GFCI on the outlet, use a plug-in GFCI. Wear rubber gloves and footwear.



Don't use or leave power tools in the rain or wet conditions.



Do not abuse the cord, carry the tool by its cord, or pull the cord to unplug it. Keep the cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.



Always hold the tool by the insulated gripping surfaces. Contact with hidden wiring or its own cord will make exposed metal parts of the tool "live" and shock the operator.

Rules about Extension Cords

- When using a power tool outside, use an extension cord marked for outdoor use with "W-A" or "W". These cords are made for outdoor use.
- Extension cords with 3-prong grounding plugs must be plugged into 3-prong outlets when using grounded tools.
- Replace damaged or worn cords immediately.

Amps The wire gauge and length of the extension cord must be able to handle the amps of the tool. Find the Amps (A) on the tool's nameplate and use the chart to determine the necessary wire gauge for your extension cord length.

Nameplate Amps	Extension Cord Gauge			
	25'	50'	100'	150'
0-6	18	16	16	14
6-10	18	16	14	12
10-12	16	16	14	12
12-16	14	12	Not Recommended	

Good Personal Safety is a Must

Following good safety practices when using all power tools is a must. Make a habit of including safety in all of your activities.



Always read and understand the tool's operator's manual, tool markings and the instructions packaged with the accessory before starting any work.

- Stay alert, watch what you are doing and use common sense when using a power tool.



Do not use tools when you are tired or under the influence of drugs, alcohol, or medication.

- Dress right. Do not wear gloves, loose clothes or jewelry. Contain long hair. Loose clothes, gloves, jewelry, or long hair can be caught in moving parts.

- Keep handles dry, clean and free from oil and grease.

- Be sure the power tool's switch is OFF before plugging it in or inserting a battery pack. Do not carry tools with your finger on the switch.








Remove adjusting keys and wrenches before turning the tool ON.

Ladder Safety Orientation

The instructor should welcome the class back from lunch. The instructor shall lead a 20 minute lecture, 20 minute power point presentation, and approximately 5 minutes for questions.

The topic of Ladder Safety is a broad subject due to the various types and configurations of ladders available. Despite the variety of ladders most of the core safety principles apply fundamentally across the ladder spectrum. The provided outline for the lecture along with the power point slides creates a fluid structure that encourages the instructor to stress key points. The automated power point presentation is from the resource Safe Schools. The Safe Schools presentation will reinforce all of the general topics and guidelines discussed during the lecture. After the two presentations the instructor should ask the class questions and encourage responses.

KEY ITEMS

-  Laptop/ Wi Fi
-  Power Point/Lecture
-  Safe Schools Video
-  Hand Out
-  6 foot ladder

How to Customize This Lecture

Think of your target audience. Ladder safety is very important and the instructor should stress the relevancy of the issue. Be sure to touch on key points that you think might be pertinent to the trainees. Although this course is a generalization it can still be customized by adding or subtracting various slides of your choosing. *Be warned, if you are gathering key performance measures make sure that all training is uniform.*



Power Point Notes

Each power point slide has been copied into the student manual. The students may follow along in the book or screen and make notes in the book for future reference. Encourage note taking or highlighting to **reinforce** the **visual** and **verbal information** presented in the power point presentation.

Begin Section 3: Lecture

Pass out the **Ladder Safety handout** (located on the next page) of this **manual**. menu. Set up a standard six foot ladder next to the podium. Cover the material.

Ladder Safety

The OSHA Standard for portable ladders contains specific requirements designed to ensure worker safety:

Loads

- Self-supporting (foldout) and non-self-supporting (leaning) portable ladders must be able to support at least four times the maximum intended load, except extra-heavy-duty metal or plastic ladders, which must be able to sustain 3.3 times the maximum intended load. (See Figure 1.)



Figure 1

Angle

- Non-self-supporting ladders, which must lean against a wall or other support, are to be positioned at such an angle that the horizontal distance from the top support to the foot of the ladder is about 1/4 the working length of the ladder. (See Figure 2.)
- In the case of job-made wooden ladders, that angle should equal about 1/8 the working length. This minimizes the strain of the load on ladder joints that may not be as strong as on commercially manufactured ladders.



Figure 2

Rungs

- Ladder rungs, cleats, or steps must be parallel, level, and uniformly spaced when the ladder is in position for use. Rungs must be spaced between 10 and 14 inches apart.
- For extension trestle ladders, the spacing must be 8-18 inches for the base, and 6-12 inches on the extension section.
- Rungs must be so shaped that an employee's foot cannot slide off, and must be skid-resistant. (See Figure 3.)



Figure 3

Slipping

- Ladders are to be kept free of oil, grease, wet paint, and other slipping hazards.
- Wood ladders must not be coated with any opaque covering, except identification or warning labels on one face only of a side rail.



Figure 4

Other Requirements

- Foldout or stepladders must have a metal spreader or locking device to hold the front and back sections in an open position when in use. (See Figure 4.)

- When two or more ladders are used to reach a work area, they must be offset with a landing or platform between the ladders.
- The area around the top and bottom of ladder must be kept clear.
- Ladders must not be tied or fastened together to provide longer sections, unless they are specifically designed for such use. (See Figure 5.)
- Never use a ladder for any purpose other than the one for which it was designed.



Figure 5



Additional Information:

- [29 CFR 1926 Subpart X](#), Ladders. OSHA Standard.
[1926.1053](#), Ladders



Top pic: This is improperly using the top rung of this step ladder to work from.



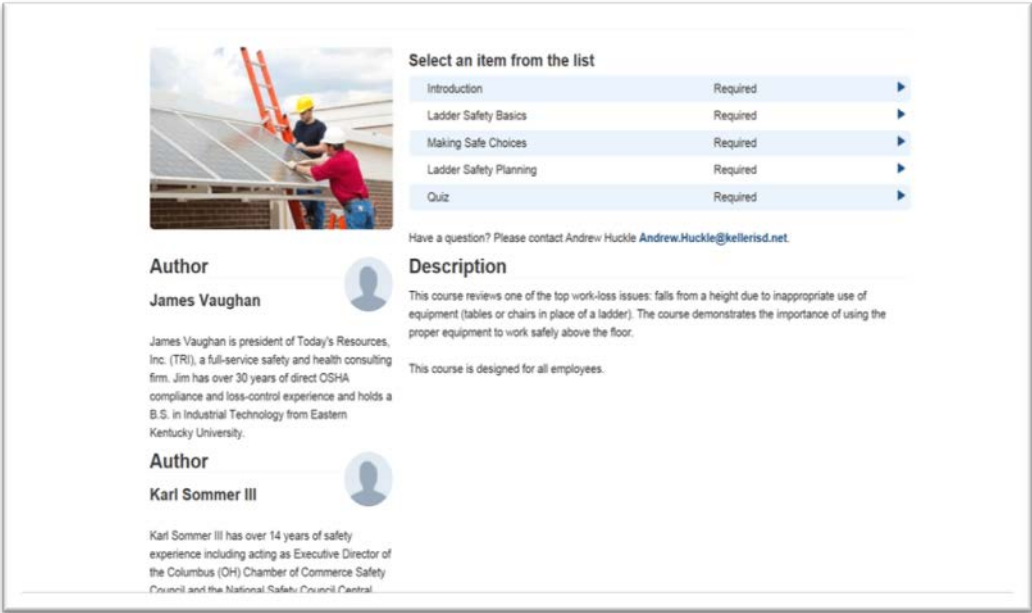
Bottom pic: Not even close to being correct.

Safe Schools: Ladder Safety Video

NOTE: Let the class know that there is a “group” quiz at the end of the presentation.

<https://kellerisd-tx.safeschools.com/login>, first login. Click on the **Extra Training** tab. Scroll down to the **Environmental** section. Select the **General Safety Orientation** icon. Select **Full Course**. Select **Tutorial**. Presentation will play. At the end of the video select **Quiz**.

 [Begin Power Point Video Presentation](#)



Select an item from the list

Introduction	Required	▶
Ladder Safety Basics	Required	▶
Making Safe Choices	Required	▶
Ladder Safety Planning	Required	▶
Quiz	Required	▶

Have a question? Please contact Andrew Huckle Andrew.Huckle@kellerisd.net.

Author
James Vaughan

James Vaughan is president of Today's Resources, Inc. (TRI), a full-service safety and health consulting firm. Jim has over 30 years of direct OSHA compliance and loss-control experience and holds a B.S. in Industrial Technology from Eastern Kentucky University.

Author
Karl Sommer III

Karl Sommer III has over 14 years of safety experience including acting as Executive Director of the Columbus (OH) Chamber of Commerce Safety Council and the National Safety Council Central.

Description

This course reviews one of the top work-loss issues: falls from a height due to inappropriate use of equipment (tables or chairs in place of a ladder). The course demonstrates the importance of using the proper equipment to work safely above the floor.


This course is designed for all employees.

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A Common Mistake

Ellen wants to hang a decoration from the ceiling to brighten up her office. She's about to do something that many workers do. She stands on her chair, then climbs on top of her desk in an attempt to reach the right spot.



1 of 8 Training Ladder Safety Introduction: A Common Mistake


This slide illustrates a common safety mistake. It features a video player interface with a back arrow, navigation buttons, and a menu icon. The main content area shows a person's legs in a dark skirt and black heels standing on a white wooden chair. To the left of the image is a text block explaining the scenario. At the bottom, a black bar contains the slide number and title.

←Back

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Ladders and Safety

In this example, a ladder is the best – and safest – method to reach the ceiling. Climbing on furniture is always unsafe and is one of the most common causes of dangerous falls.



2 of 8 Training Ladder Safety Introduction: Ladders and Safety

This slide illustrates the correct and safe method to reach the ceiling. It features a video player interface with a back arrow, navigation buttons, and a menu icon. The main content area shows a wooden A-frame step ladder. To the left of the image is a text block explaining the safety principle. At the bottom, a black bar contains the slide number and title.


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The Cost of Ladder-Related Injuries

The cost of ladder-related falls and injuries is staggering, in both human and monetary terms.

In the United States, more than 500,000 people are treated annually for ladder-related injuries. This figure does not include people who suffered injuries and did not go to a medical care provider for treatment.



5 of 8 Training Ladder Safety Introduction: The Cost of Ladder-Related Injuries


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Most Ladder Accidents Are Preventable

Most accidents are preventable and occur because we ignore common sense or the safety precautions we've been taught.

This is certainly true of most accidents that involve ladders, scaffolds, and other climbing equipment.




1 of 22 Training Ladder Safety Ladder Safety Basics: Most Ladder Accidents Are Preventable

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Simple Devices, Real Dangers

Ladders are simple devices for safe climbing, and the simplicity may be the biggest problem. People often mistake a ladder's simplicity for harmlessness and forget to follow proper rules for use. That kind of mistake causes thousands of accidents and disabling injuries every year.



4 of 22 Training Ladder Safety Ladder Safety Basics: Simple Devices, Real Dangers

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Different Ladders for Different Jobs

Did you know that you need different ladders for different jobs?

Typical work environments need a variety of ladders for different purposes.

It's important to know when and where to use the right kind of device to increase your height advantage.



1 of 20 Training Ladder Safety Ladder Safety Planning: Different Ladders for Different Jobs


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Pitfalls of Trying to Get It Done Too Quickly

Mistakes are often made when employees try to get work done in a rush. Some common pitfalls include:

- Choosing a ladder that does not meet the requirements of the job.
- Standing on top of a stepladder. Never use the top two steps of a stepladder.
- Placing a stepladder against a wall.



9 of 14 Training Ladder Safety Making Safe Choices: Pitfalls of Trying to Get It Done Too Quickly

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Stepladders

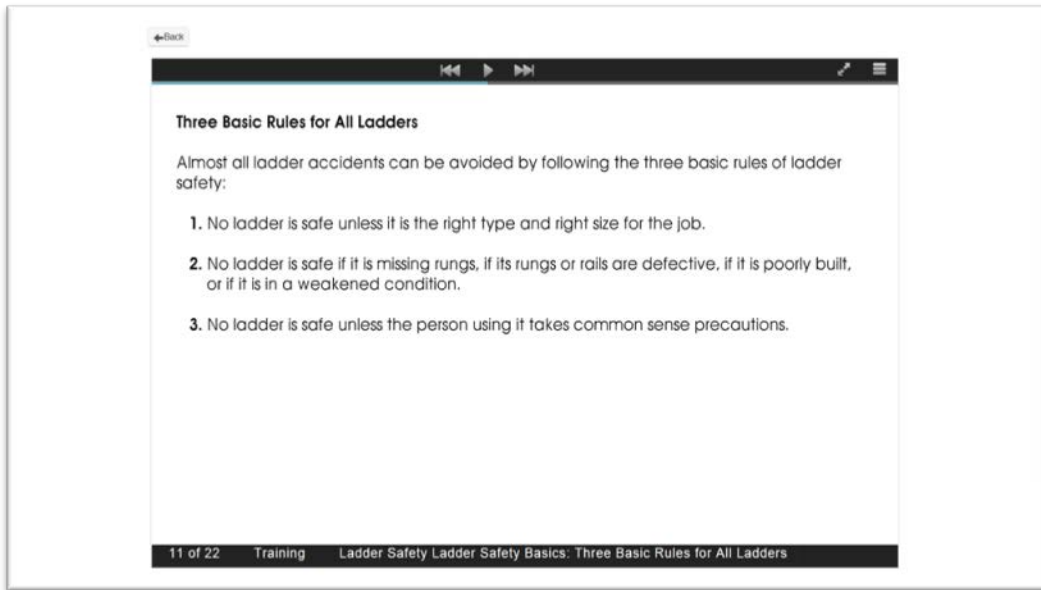
Open stepladders fully and make sure that the spreader is locked securely.

Never stand on the top two rungs or the very top of a stepladder.

Losing your balance on a stepladder is easier than you might imagine.



10 of 22 Training Ladder Safety Ladder Safety Basics: Stepladders



Breakout Session: Engagement Opportunity

👉 Go to the website <http://www.ladderchallenge.com/s/Home.asp> and put the game on the pull down screen. Encourage trainees to help play the game.



THE GAME: The Ladder Challenge is an interactive safety game that lets you learn by doing. The game is set on a residential construction site, where you can put your ladder safety skills to the test, with a little help from the virtual foreman.






The Instructor tells the **trainees** that safety is everyone's **responsibility**. Teamwork and awareness create safe environments. Discuss.

Hand & Power Tool Safety

The instructor should welcome the class and introduce themselves. The instructor shall lead a 20 minute lecture, 20 minute power point presentation, and 20 minutes for hands on.

The topic of Hand and Power Tool Safety is relevant to all maintenance employees. Briefly cover the provided material on Hand and Power tools located on the next 3 pages. After covering the material divide the class in two groups (1 & 2). Group 1 will watch the automated power point presentation from the Safe Schools resource. The Safe Schools presentation will reinforce all of the general topics discussed during the lecture. Group 2 will leave the classroom and enter the “shop” area directly outside. The instructor will demonstrate various hand and power tools. The instructor will allow trainees to interact with the tools (de-energized for safety). After the presentation Groups 1 and 2 switch “stations”..

KEY ITEMS

-  Laptop/ Wi Fi
-  Power Point/Lecture
-  Safe Schools Video
-  Hand Out
-  Shop Area

How to Customize This Lecture

The instructor may want to integrate actual hand tools into the lecture, allowing trainees to examine and hold the tools during the activity. The material may be reviewed by trainees later-touch on the key points. Know the material and do not read line for line. Although this course is a generalization it can still be customized by adding or subtracting various slides of your choosing. *Be warned, if you are gathering key performance measures make sure that all training is uniform.*



Power Point Notes

Each power point slide has been copied into the student manual. The students may follow along in the book or screen and make notes in the book for future reference. Encourage note taking or highlighting to **reinforce** the **visual** and **verbal information** presented in the power point presentation.

Be *interesting*. A lecture should be more than reading the script. **Engage** and **challenge** the audience. Expect answers.

Hand and Power Tools

Construction Safety and Health Outreach Program

U.S. Department of Labor
OSHA Office of Training and
Education
May 1996

HAZARD RECOGNITION

Tools are such a common part of our lives that it is difficult to remember that they may pose hazards. All tools are manufactured with safety in mind but, tragically, a serious accident often occurs before steps are taken to search out and avoid or eliminate tool-related hazards.

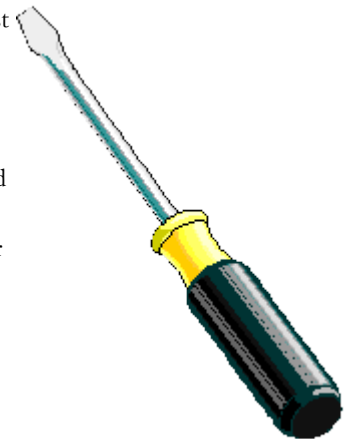
In the process of removing or avoiding the hazards, workers must learn to recognize the hazards associated with the different types of tools and the safety precautions necessary to prevent those hazards.

HAND TOOLS

Hand tools are non-powered. They include anything from axes to wrenches. The greatest hazards posed by hand tools result from misuse and improper maintenance.

Some examples:

- Using a screwdriver as a chisel may cause the tip of the screwdriver to break and fly, hitting the user or other employees.
- If a wooden handle on a tool such as a hammer or an axe is loose, splintered, or cracked, the head of the tool may fly off and strike the user or another worker.
- A wrench must not be used if its jaws are sprung, because it might slip.
- Impact tools such as chisels, wedges, or drift pins are unsafe if they have mushroomed heads. The heads might shatter on impact, sending sharp fragments flying.



The employer is responsible for the safe condition of tools and equipment used by employees but the employees have the responsibility for properly using and maintaining tools.

Employers should caution employees that saw blades, knives, or other tools be directed away from aisle areas and other employees working in close proximity. Knives and scissors must be sharp. Dull tools can be more hazardous than sharp ones.

Appropriate personal protective equipment (safety goggles, gloves, etc.) should be worn due to hazards that may be encountered while using portable power tools and hand tools.

Safety requires that floors be kept as clean and dry as possible to prevent accidental slips with or around dangerous hand tools.

Around flammable substances, sparks produced by iron and steel hand tools can be a dangerous ignition source. Where this hazard exists, spark-resistant tools made from brass, plastic, aluminum, or wood will provide for safety.

POWER TOOL PRECAUTIONS

Power tools can be hazardous when improperly used. There are several types of power tools, based on the power source they use: electric, pneumatic, liquid fuel, hydraulic, and powder-actuated.

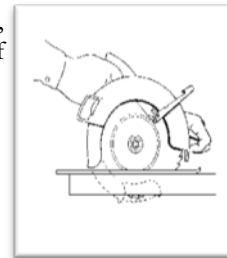
Employees should be trained in the use of all tools - not just power tools. They should understand the potential hazards as well as the safety precautions to prevent those hazards from occurring.

The following general precautions should be observed by power tool users:

- Never carry a tool by the cord or hose.
- Never yank the cord or the hose to disconnect it from the receptacle.
- Keep cords and hoses away from heat, oil, and sharp edges.
- Disconnect tools when not in use, before servicing, and when changing accessories such as blades, bits and cutters.
- All observers should be kept at a safe distance away from the work area.
- Secure work with clamps or a vise, freeing both hands to operate the tool.
- Avoid accidental starting. The worker should not hold a finger on the switch button while carrying a plugged-in tool.
- Tools should be maintained with care. They should be kept sharp and clean for the best performance. Follow instructions in the user's manual for lubricating and changing accessories.
- Be sure to keep good footing and maintain good balance.
- The proper apparel should be worn. Loose clothing, ties, or jewelry can become caught in moving parts.
- All portable electric tools that are damaged shall be removed from use and tagged "Do Not Use."

▪ GUARDS

- Hazardous moving parts of a power tool need to be safeguarded. For belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, reciprocating, rotating, or moving parts of equipment must be guarded if are exposed to contact by employees.



example,
or other
such parts

Guards, as necessary, should be provided to protect the operator and others

from the following:

- point of operation,
- in-running nip points,
- rotating parts, and
- flying chips and sparks.

Safety guards must never be removed when a tool is being used. For example, portable circular saws must be equipped with guards. An upper guard must cover the entire blade of the saw. A retractable lower guard must cover the teeth of the saw, except when it makes contact with the work material. The lower guard must automatically return to the covering position when the tool is withdrawn from the work.

ELECTRIC TOOLS

Employees using electric tools must be aware of several dangers; the most serious is the possibility of electrocution.

Among the chief hazards of electric-powered tools are burns and slight shocks which can lead to injuries or even heart failure. Under certain conditions, even a small amount of current can result in fibrillation of the heart and eventual death. A shock also can cause the user to fall off a ladder or other elevated work surface.

To protect the user from shock, tools must either have a three-wire cord with ground and be grounded, be double insulated, or be powered by a low-voltage isolation transformer. Three-wire cords contain two current-carrying conductors and a grounding conductor. One end of the grounding conductor connects to the tool's metal housing. The other end is grounded through a prong on the plug. Anytime an adapter is used to accommodate a two-hole receptacle, the adapter wire must be attached to a known ground. The third prong should never be removed from the plug.



Double insulation is more convenient. The user and the tools are protected in two ways: by normal insulation on the wires inside, and by a housing that cannot conduct electricity to the operator in the event of a malfunction.

These general practices should be followed when using electric tools:

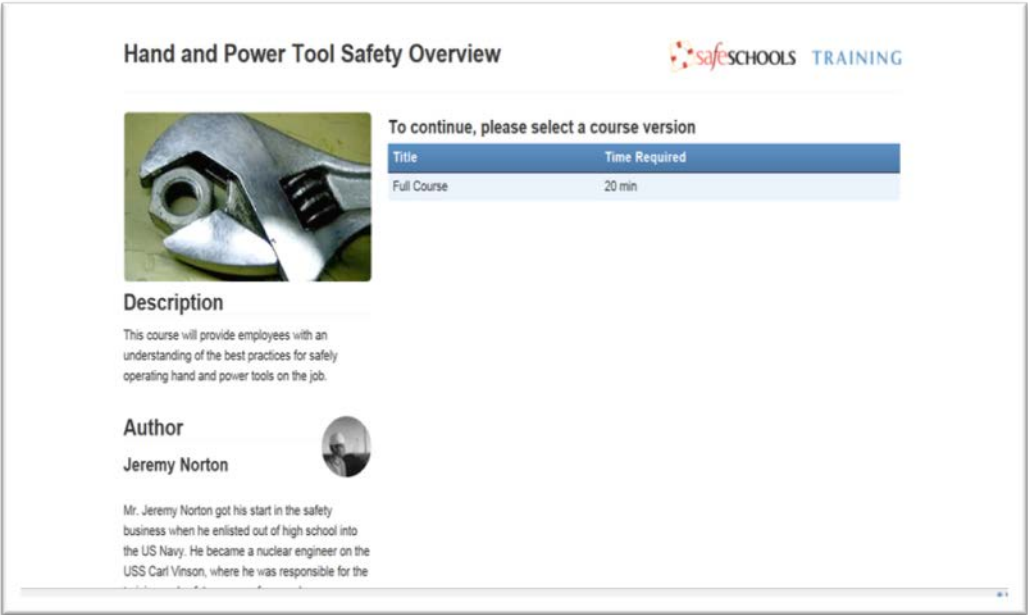
- Electric tools should be operated within their design limitations.
- Gloves and safety footwear are recommended during use of electric tools.
- When not in use, tools should be stored in a dry place.
- Electric tools should not be used in damp or wet locations.
- Work areas should be well lighted.

Safe Schools: Hand and Power Tool

NOTE: Let the class know that there is a “group” quiz at the end of the presentation.

<https://kellerisd-tx.safeschools.com/login>, first login. Click on the **Extra Training** tab. Scroll down to the **Environmental** section. Select the **Hand and Power Tool Safety** icon. Select **Full Course**. Select **Tutorial**. Presentation will play. At the end of the video select **Quiz**. Each group may use their handouts and workbooks to complete the quiz.

Begin Power Point Video Presentation



Hand and Power Tool Safety Overview safeschools TRAINING

To continue, please select a course version

Title	Time Required
Full Course	20 min

Description
This course will provide employees with an understanding of the best practices for safely operating hand and power tools on the job.


Author
Jeremy Norton

Mr. Jeremy Norton got his start in the safety business when he enlisted out of high school into the US Navy. He became a nuclear engineer on the USS Carl Vinson, where he was responsible for the

Hand and Power Tool Safety
Introduction

Introduction

Hand and power tools are a part of our everyday lives. They're also present in nearly every workplace in the U.S. These tools help us easily perform tasks that otherwise would be difficult or impossible.



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Hand and Power Tool Safety
Introduction

How Important Is Hand and Power Tool Safety?

Your time and safety is valuable. As a result, it's important to spend some of it learning how to safely use and maintain the hand and power tools you use on the job.


You should know that hand and power tool injuries account for as many as **400,000 annual emergency room visits** .

Source: WorkSafeCenter.com

Hand and Power Tool Safety
Basic Hand Tool Safety

Tool Condition

The **condition** of the tools you use is the starting point for staying safe on the job. It's important to keep your tools in a clean and safe condition. Dirty or damaged tools are a frequent cause of workplace accidents.




Wooden handles of tools must be free of splinters and cracks, and must be kept tight in the tool.

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Hand and Power Tool Safety
Basic Hand Tool Safety

Right Tools for the Job



Hand and power tools should **only** be used for their intended purpose. Some common misuses of tools include:

- using wrenches as hammers
- using screwdrivers as pry bars
- extending the length of tools with cheater bars. A cheater bar was added to this ratchet, and both the ratchet and fastener broke as a result.

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Hand and Power Tool Safety Basic Hand Tool Safety

Inspecting Your Tools

The tools you use on the job should be inspected **every time** before you use them. Tools should also be inspected periodically in accordance with the manufacturer's recommendations and your organization's policy.

It's important that you're trained on the inspection requirements of the tools you use.

A good **rule of thumb** for tool inspections is, "If there's any doubt, there's no doubt." Don't use the tool.



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Hand and Power Tool Safety Basic Hand Tool Safety

Use Personal Protective Equipment



When using hand and power tools, the correct personal protective equipment (PPE) will keep you safe. Eye protection and steel-toed safety shoes are almost always required.

Additional hazards may require safety gloves, fire retardant clothing, fall protection or other PPE.

What PPE is required for the job tasks at your facility?

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Hand and Power Tool Safety
Guarding Requirements for Power Tools

Types of Power Tools

Power tools are classified by their power source. You need to know the power source of the tool you're working with so that you can use the proper guarding.

The types of power tools you may work with are:

- electric



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Hand and Power Tool Safety
Guarding Requirements for Power Tools

Types of Power Tools (cont.)

The types of power tools you may work with are:

- pneumatic, or air



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Hand and Power Tool Safety
Guarding Requirements for Power Tools

Types of Power Tools (cont.)

The types of power tools you may work with are:

- liquid fuel




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Hand and Power Tool Safety
Guarding Requirements for Power Tools

Types of Power Tools (cont.)

The types of power tools you may work with are:

- hydraulic



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Hand and Power Tool Safety
Guarding Requirements for Power Tools

Types of Power Tools (cont.)

The types of power tools you may work with are:

- powder-actuated



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Hand and Power Tool Safety
Guarding Requirements for Power Tools

Guarding Power Tools: Portable Circular Saws

Portable circular saws with a blade diameter greater than two inches are required to have:

- an upper guard that covers the entire top blade of the saw
- a lower guard that covers the lower area except for the part that contacts the material being cut. The lower guard must automatically return to cover the saw blade when it is removed from the material being cut.



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Hand and Power Tool Safety
Safety Requirements for Power Tools

Portable Electric Power Tools: Safety Tips

Here are some **safety tips** you should follow when using portable electric power tools:

- Never carry or hoist a tool by the cord.
- Store tools in a secure, dry place.
- Keep cords away from oil, heat and sharp edges.
- Use proper personal protective equipment (PPE).
- Don't use tools in or near wet areas.
- Tag damaged tools and remove them from use.
- Never pull on a cord to disconnect a tool from an electric outlet. Always disconnect a tool by its plug.



Hand and Power Tool Safety
Safety Requirements for Power Tools

Portable Electric Power Tools: Handling and Inspection of Cords



If you find a cord with damage, remove it from service immediately!

It's important to handle cords for power tools with care, and inspect them regularly. Some safety tips for electric cords include the following:

- Flexible electric cords should not be used to raise or lower equipment.
- Never hold a tool by the cord.
- Don't fasten cords with staples.
- Inspect cords regularly for evidence of damage. Worn insulation, excessive bending and fraying are indicators of damaged cords.
- Arrange power cords so they don't cause a tripping hazard.

Hand and Power Tool Safety
Safety Requirements for Power Tools

Connecting and Disconnecting

Connecting and disconnecting power cords correctly are important for your safety. Here are some safe practices to follow regarding cords:

- Make sure your hands are dry before connecting or disconnecting equipment.
- Use electrical safety gloves if there is a chance of shock.
- Check connections to make sure they're secure.
- Only switches or circuit breakers should be used to de-energize running equipment.
- Do not pull the disconnect or cord while equipment is running.




Hand and Power Tool Safety
Safety Requirements for Power Tools

Pneumatic Tools

Pneumatic tools are powered by compressed air. Nail guns, drills, chippers, grinders and sanders are examples of tools commonly powered by air. Getting hit by projectiles from the improper use of pneumatic systems is a common cause of injury.



Hand and Power Tool Safety
Safety Requirements for Power Tools



Personal Protective Equipment (PPE)

Having the right PPE when using pneumatic tools is a safe decision. **Eye protection** is always required when using pneumatic tools.

Face protection is also a good idea, and depending on the noise level, **hearing protection** may be required as well .

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Hand and Power Tool Safety
Safety Requirements for Power Tools

Liquid Fuel-Powered Tools

Liquid fuel-powered tools , such as chainsaws, are very powerful and can be dangerous if not used properly. Gasoline is the most common fuel used to energize liquid fuel-powered tools.

In addition to the tool hazard, fuels are chemically reactive, flammable and explosive. Exhaust from liquid fuel-powered tools can also accumulate in dangerous concentrations. Make sure the area where you're working with a liquid fuel-powered tool is well ventilated.



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Hand and Power Tool Safety
Safety Requirements for Power Tools

Fuel Storage

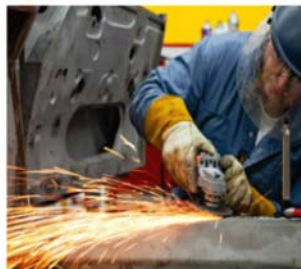
Fuel is hazardous and must be stored properly. Fuel should never be stored in plastic containers – only in metal containers designed for fuel storage. Additionally, facilities should minimize the amount of fuel stored on site.



The specific requirements for fuel storage vary depending on local regulations. Make sure you're compliant with the fire code at your facility and OSHA Subpart F on Fire Prevention and Protection.

Hand and Power Tool Safety
Safety Requirements for Power Tools

Abrasive Wheels



Abrasive wheels are used for grinding and sanding. The main hazards from abrasive wheels are:

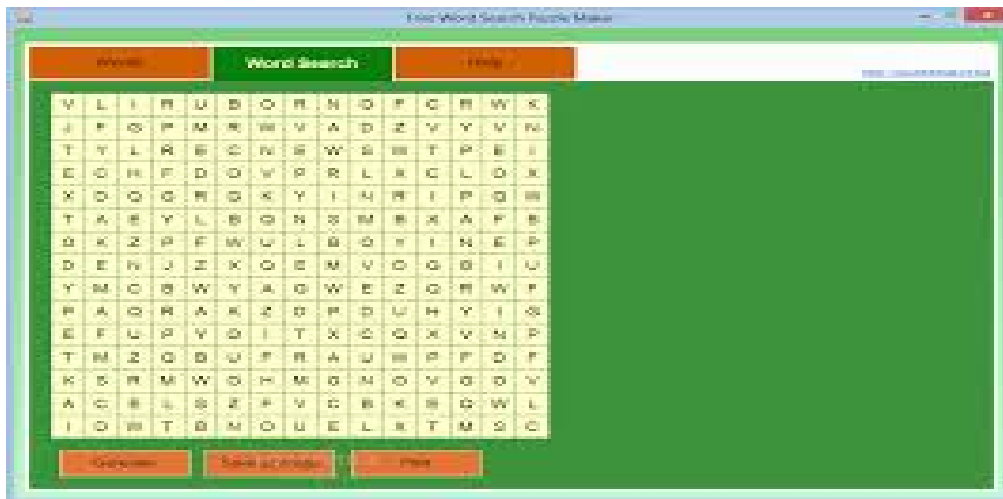
- injury from contacting the wheel
- flying sparks or debris
- wheel falling apart during startup or use

Abrasive wheels require eye, hearing, face and usually hand protection.



Breakout Session: Engagement Opportunity

👉 Pass out the seek a word exercise (located on p. 55).



THE PIECES: the three sandwich bags labeled 1, 2, and 3 each contain a word to make the phrase, “think safety first”. Bag 1=think, bag 2=safety, and bag 3=first. Each group receives a bag that correlates with their group number. Each group solves their word and places it on the board.

The Instructor tells the **trainees** that safety is everyone’s **responsibility**. Teamwork and awareness create safe environments. Discuss.

GENERAL SAFETY TERMS

K F V C D O X L K L F R C W R R M L G F S O X B T K L T P S
 W T W O U R V H N H E H I J Y Y U U W L L H S N J V R D R L
 F K J A S B A R K H M X J W W V X F S F O A E E S A O Y K J
 F K G E Y E B U S C R E W D R I V E R B R V M U U I T C T L
 O B S E R A L I G F X I B M H L L R J A L K E M B T O C R Q
 M Q I O D S U G J U I O J X V O L A F O Z G Q S A H X I I I
 O G H L F G O X G I V R E X B K I C S G N S E A S B C U P T
 W B N A N D I S R O V T E L U Q R V S U N V H O X Y L D S X
 Y O K I B U E F Y U G U B M R M D Z B K F I J P N A V E V H
 N E T T F F F O Z C A A H Q F C M A L N Y J J G O L P D H Q
 F X Y E A B U S R V L Y M B G O X I A O D C L A O P H K J L
 E M Y K L H F X I U Q A X M P I W I B J S A Q W W S R X S N
 N V N O E P H G S R I T M W P R T B A O Y Y E A W W Y J A G
 M V V T N E D I C C A T P Z D V Q I T E I K N R H H X V T I
 W X V D M I E O Y Z J C R G J P S P K P O Y U E A H F Z Y K
 K C X X B Z Y A E G K R E G N A D T S N Z G A N Z L W T F H
 R Q W O D S J A I Y U V Z B Q B E U N J I D H E A Z E Y C V
 E V C Z F C E O P D V J X C Q K R M Q C V N D S R C T H R G
 F I K T Z N M P I E Y I X F Q Z A Z N G V V D S D Z F L M U
 K X X F K N L Q E M I Z G Z T I W O U T W T X U F U C Q N R
 C X D R A U A S U X L I S C H R C X G X J P U Q I K O Y P Y
 C K N V Q S F A W J B Y Z P T P V T L N N W U J K B S I N T
 B R U F A T I Z U E Z J Q R L F L K C C W K N N M C Z U C Z
 E M N F M R I E E W Z S I F X F F T W B T Y E U H Y T S J W
 C S E O U E H V O N Q X F Z B N Z A W H I L R E Y H A X U H
 Q T O L U U E S U W G V T F O Y Q E B S Q G M V M G X L F W
 Y G H B D F P E C R E L F K Y Y W L E D T I Q N U A N W T I
 H R H F J K M T P K X M M U S L X W P R C W N M T M A C W N
 A Y T T Y P E Z G Y N Z L D U V Z J R A P O E Y C P V A Y A
 L A D D E R B B O S H A W H A W M S L N L U V J P N H E U J

ACCIDENT
AWARENESS
CAREFUL
CHEMICAL
DANGER
DRILL
EXTINGUISH
ER
FIRE
FLAMMABLE
GLOVES

GOGGLES
GUARD
HAZARD
LADDER
OSHA
SAFETY
SCREWDRIVER
SHOCK
SOLVENT
TRIP



ANSWER KEY

K F V C **D** O X L K L F **R** C W R R M **L** **G** **F** S O X B **T** K L T P S
 W T W O U **R** V H N H **E** H I J Y Y U U W **L** **L** H S **N** J V R D R L
 F K J A **S** B **A** R K H M X J W W V X **F** S **F** O **A** **E** E S A O Y **K** J
 F K G E Y **E** B U **S** C R E W D R I V E R B R V M U U I T **C** T L
 O B S E R A **L** I **G** **F** X I B M H L **L** R J A **L** K **E** M B T O C R Q
 M Q I O D S U **G** J U **I** O J X V O L A F O Z G Q **S** A H X I I I
 O G H L F **G** O X **G** I V **R** E X B K I **C** S G N S E A **S** B C U P T
 W B N A **N** D I S R O V T **E** L U Q R V S U N V H O X Y **L** D S X
 Y O K **I** B U E F Y U **G** U B M R M D Z B K F I J P N A V **E** V H
 N E **T** T F F F O Z C A A H Q F C M A L N Y J J G O L P D H Q
 F **X** Y E A B U S R V L Y M B G O X I A O D C L **A** O P H K J L
E M Y K L H F X I U Q A X M P I W I B J S A Q W W S R X S N
 N V N O E P H G S R I T M W P R T B A O Y Y E **A** W W Y J A G
 M V V **T** N E D I C C A T P Z D V Q I T E I K N R **H** H X V T I
 W X V D M I E O Y Z J C R G J P S P K P O Y U **E** A H F Z Y K
 K C X X B Z Y A E G K **R** E G N A D T S N Z G A N Z L W T F H
 R Q W O D S J A I Y U V Z B Q B E U N J I D H **E** A Z E Y C V
 E V C Z F C E O P D V J X C Q K R M Q C V N D **S** R C T H R G
 F I K T Z N M P I E Y I X F Q Z A Z N G V V D **S** D Z F L M U
 K X X F K N L Q E M I Z G Z T I W O U T W T X U F U C Q N R
 C X D R A U A S U X L I S C H R C X G X J P U Q I K O Y P Y
 C K N V Q **S** F A W J B Y Z P T P V T L N N W U J K B S I N T
 B R U F **A** T I Z U E Z J Q R L F L K C C W K N N M **C** Z U C Z
 E M N **F** M R I E E W Z S I F X F F T W B T Y E U **H** Y T S J W
 C S **E** O U E H V O N Q X F Z B N Z A W H I L R **E** Y H A X U H
 Q **T** O L U U E S U W G V T F O Y Q E B S Q G **M** V M G X L F W
Y G H B D F P E C R E L F K Y Y W L E D T **I** Q N U A N W T I
 H R H F J K M T P K X M M U S L X W P R **C** W N M T M A C W N
 A Y T T Y P E Z G Y N Z L D U V Z J R **A** P O E Y C P V A Y A
L A D D E R B B **O** S H A W H A W M S **L** N L U V J P N H E U J



“General Safety Orientation” Training Evaluation and Learning Self-Assessment

1. Please rate your Instructor in the following areas: **Engaging, Clarity, Knowledgeable, Time Management, and Responsiveness** to your educational needs. Provide any additional feedback in the **Comments** section. Circle the appropriate numbers.

RATING SCALE: 1 = LOW 3 = MEDIUM 5 = HIGH

Trainer Name(s)	Engaging					Clarity					Knowledgeable					Time Management					Responsiveness				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Comments:																									

2. Please review the following list of knowledge and skills statements. Give some thought to what you knew before this training and what you learned here today. Circle the number that best represents your knowledge and skills **before** then **after** this training.

RATING SCALE: 1 = LOW 3 = MEDIUM 5 = HIGH

BEFORE TRAINING	SELF-ASSESSMENT OF KNOWLEDGE AND SKILLS RELATED TO:															AFTER TRAINING				
1 2 3 4 5	General Safety Knowledge															1	2	3	4	5
1 2 3 4 5	Safety Awareness															1	2	3	4	5
1 2 3 4 5	Recognizing Potential Hazards in the Workplace															1	2	3	4	5
1 2 3 4 5	Fire Extinguisher Safety Knowledge.															1	2	3	4	5
1 2 3 4 5	Basic Principles of Fire															1	2	3	4	5
1 2 3 4 5	Fire Extinguisher Type(s)															1	2	3	4	5
1 2 3 4 5	Ladder Safety															1	2	3	4	5
1 2 3 4 5	Choosing the Appropriate Ladder.															1	2	3	4	5
1 2 3 4 5	Hand and Power Tool(s) Safety															1	2	3	4	5
1 2 3 4 5	Knowledge of Power Tool(s)															1	2	3	4	5

OVERALL EVALUATION OF PRESENTATION

3. Please take a moment to answer the following questions. Your comments are an **important contribution** as we design learning experiences to meet your professional needs.

What will you do **differently** in your workplace environment as a result of this training?



What do you feel were the **strengths** of this presentation?



What do you feel were the **weaknesses** of this presentation?



How can we **improve** this presentation?



What **additional** training-development education do you require?



4. Please rate the following statements using a 1 through 5 scale where:

1 = Disagree Strongly

5 = Agree Strongly



___ The **difficulty level** was about right.

___ I can **apply the information** in my workplace setting.

___ The presentation met my professional **educational needs**.

___ The Instructor **actively involved** me in the learning process.

___ As a result of this training, I feel **more confident** in my capacity to be safety conscious.

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