## Title: Safety Precautions for Home and on the Job

Obje	Objectives												Time frame to Complete											
To avoid safety hazards and to work safely												20-25 minutes												
											r	NRS EFL												
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Stackable Cert. Documentation	Technology	Study / Life skills	EL-Civics	Career Pathways	Police	Paramedic	Fire Rescue	Medical Asst.	EKG / Cardio	Phlebotomy	Practical Nursing	Healthcare Admin	Pharmacy Tech	IMT	AMT	HVAC	Welding	Other:						
		×		×												×								
Standard(s) Addressed in Lesson																								
Read with Understanding																								
Benchmark(s) Addressed in Lesson																								
R.4.1 Identify purposes for reading (for example, to generate and answer questions about a topic, to solve																								
problems). R.4.2 Select text to match purpose, appropriate complexity and reading level.																								
Materials																								
Teacher-made worksheet using information gathered from various heating and air conditioning textbooks																								
Learner Prior Knowledge Students should understand there are different purposes for reading. Students should understand the meaning of														of										
Students should understand there are different purposes for reading. Students should understand the meaning of precautions and hazards.																								
Activities																								
Step 1 Have class discussion to elicit prior knowledge about safety precautions they use at home and on the job.														b.										
Do they know the location of a first-aid kit, fire extinguisher, etc. and how to use them?																								
Step 2 After some good examples are given, distribute worksheet. Ask students to read and answer questions.																								
Step 2 Collect and check worksheets or check them together as a group.																								
Step 3 Class discussion about safety precautions, past experiences, and lessons they have learned "the hard																								
way."																								
Assessment/Evidence																								
Completed worksheet. Good class discussion about important points.																								
Adaptations for Beginning Students Work with a partner.																								
Adaptations for Advanced Students																								
Research other texts or websites to find other safety practices for their particular field of study.																								
Teacher Reflection/Lesson Evaluation																								
This lesson was created by Middletown ABLE.																								

## SAFETY PRECAUTIONS FOR HOME AND ON THE JOB

(The following information was gathered from various heating and air conditioning textbooks).

**Objectives:** to avoid safety hazards and to work safely

**Electrical hazards:** Electrical power should always be shut off and locked out when installing and servicing equipment. Specific requirements furnished by the Occupational Safety and Health Administration (OSHA) give the details for working safety conditions, including electrical lock-out and tag procedures. Keep the panel locked when you are out of sight and keep the only key with you to prevent someone from accidentally turning the power on.

Do not stand in wet or damp areas when making checks. Use proper test equipment in good condition. Wear heavy shoes with insulating soles and heels.

Use properly grounded power tools connected to properly grounded circuits. Do not become a conductor between two live wires or a live wire and ground.

**Ladder safety:** Always use a non-conducting ladder made of wood or fiberglass. A non-conducting ladder will provide protection from electrical shock to ground, but it will not provide protection between two or more electrical conductors. Make sure the ladder is placed on a level surface that is not slippery. If there is any doubt, secure the ladder at the feet. The ladder should extend about three feet above the upper landing surface, and the space at the base of the ladder should be ¼ of the length of the ladder.

**Moving heavy objects:** When lifting, use your legs and not your back. Wear an approved back brace belt. Some tools such as pry bar, lever truck, hand truck, and portable dolly might be useful. Use short lengths of pipe as rollers to help move equipment across a solid floor. When moving equipment across carpet or tile, lay down plywood in front of the equipment as it is moved along.

**Safety hints:** Know the location of a first-aid kit and fire extinguisher. Some fire extinguishers are designed for specific purposes. Type A is for trash, wood, and paper. Type B is for liquids, and Type C is for electrical equipment fires. Some are rated for all three types of fires. Don't wear jewelry that can catch on nails or other objects and cause injury.

Using the above information, answer the following questions.

- 1. What do the letters A, B, and C mean on a fire extinguisher?
- 2. Name two ways to move heavy objects.
- 3. How far from a wall should a ladder be placed?
- 4. What are two things you should do when installing and servicing electrical equipment?
- 5. Should you use a heavier aluminum ladder for stability?

## ANSWER KEY

- 1. Type A is used for trash. Type B is for liquids. Type C is for electrical equipment fires.
- 2. pry bar, lever truck, hand truck, portable dolly, short lengths of pipe as rollers, plywood in front of equipment to help move it across carpet or tile.
- 3. Base of ladder should be ¼ the length of the ladder from the building.
- 4. Turn off power and lock it out. Do not stand in wet or damp areas. Make sure test equipment is in good condition. Wear heavy shoes with insulating soles and heels. Use properly grounded power tools connected to properly grounded circuits. Do not become a conductor between two live wires or a live wire and ground.
- 5. No. Use a non-conducting ladder made of wood or fiberglass.