

Name: _____

Date: _____



1.1 Lab Safety

What can I do to protect myself and others in the lab?

Science equipment and supplies are fun to use. However, these materials must always be used with care. Here you will learn how to be safe in a science lab.

Materials

- Poster board
- Felt-tip markers

Follow these basic safety guidelines

Your teacher will divide the class into groups. Each group should create a poster-sized display of one of the following guidelines. Hang the posters in the lab. Review these safety guidelines before each investigation.

1. **Prepare** for each investigation.
 - a. Read the investigation sheets carefully.
 - b. Take special note of safety instructions.
2. **Listen** to your teacher's instructions before, during, and after the investigation. Take notes to help you remember what your teacher has said.
3. **Get ready to work:** Roll long sleeves above the wrist. Tie back long hair. Remove dangling jewelry and any loose, bulky outer layers of clothing. Wear shoes that cover the toes.
4. **Gather** protective clothing (goggles, apron, gloves) at the beginning of the investigation.
5. **Emphasize teamwork.** Help each other. Watch out for one another's safety.
6. **Clean up** spills immediately. Clean up all materials and supplies after an investigation.

Know what to do when...

7. **working with heat:**
 - a. Always handle hot items with a hot pad. Never use your bare hands.
 - b. Move carefully when you are near hot items. Sudden movements could cause burns if you touch or spill something hot.
 - c. Inform others if they are near hot items or liquids.
8. **working with electricity:**
 - a. Always keep electric cords away from water.
 - b. Extension cords must not be placed where they may cause someone to trip or fall.
 - c. If an electrical appliance isn't working, feels hot, or smells hot, tell a teacher right away.
9. **disposing of materials and supplies:**
 - a. Generally, liquid household chemicals can be poured into a sink. Completely wash the chemical down the drain with plenty of water.
 - b. Generally, solid household chemicals can be placed in a trash can.



- c. Any liquids or solids that **should not** be poured down the sink or placed in the trash have special disposal guidelines. Follow your teacher's instructions.
- d. If glass breaks, do not use your bare hands to pick up the pieces. Use a dustpan and a brush to clean up. "Sharps" trash (trash that has pieces of glass) should be well labeled. The best way to throw away broken glass is to seal it in a labeled cardboard box.

10. you are concerned about your safety or the safety of others:

- a. Talk to your teacher immediately. Here are some examples:
 - You smell chemical or gas fumes. This might indicate a chemical or gas leak.
 - You smell something burning.
 - You injure yourself or see someone else who is injured.
 - You are having trouble using your equipment.
 - You do not understand the instructions for the investigation.
- b. Listen carefully to your teacher's instructions.
- c. Follow your teacher's instructions exactly.



Safety quiz

1. Draw a diagram of your science lab in the space below. Include in your diagram the following items. Include notes that explain how to use these important safety items.

- Exit/entrance ways
- Fire extinguisher(s)
- Fire blanket
- Eye wash and shower
- First aid kit
- Location of eye goggles and lab aprons
- Sink
- Trash cans
- Location of special safety instructions

2. How many fire extinguishers are in your science lab? Explain how to use them.

3. List the steps that your teacher and your class would take to safely exit the science lab and the building in case of a fire or other emergency.



4. Before beginning certain investigations, why should you first put on protective goggles and clothing?

5. Why is teamwork important when you are working in a science lab?

6. Why should you clean up after every investigation?

7. List at least three things you should do if you sense danger or see an emergency in your classroom or lab.

8. Five lab situations are described below. What would you do in each situation?

a. You accidentally knock over a glass container and it breaks on the floor.

b. You accidentally spill a large amount of water on the floor.



c. You suddenly you begin to smell a “chemical” odor that gives you a headache.

d. You hear the fire alarm while you are working in the lab. You are wearing your goggles and lab apron.

e. While your lab partner has her lab goggles off, she gets some liquid from the experiment in her eye.

f. A fire starts in the lab.

Safety in the science lab is everyone’s responsibility!

Safety contract



Keep this contract in your notebook at all times.

By signing it, you agree to follow all the steps necessary to be safe in your science class and lab.

I, _____, (Your name)

- Have learned about the use and location of the following:
 - Aprons and gloves
 - Eye protection
 - Eyewash fountain
 - Fire extinguisher and fire blanket
 - First aid kit
 - Heat sources (burners, hot plate, etc) and how to use them safely
 - Waste-disposal containers for glass, chemicals, matches, paper, and wood
- Understand the safety information presented.
- Will ask questions when I do not understand safety instructions.
- Pledge to follow all of the safety guidelines that are presented on the Safety Skill Sheet at all times.
- Pledge to follow all of the safety guidelines that are presented on investigation sheets.
- Will always follow the safety instructions that my teacher provides.

Additionally, I pledge to be careful about my own safety and to help others be safe. I understand that I am responsible for helping to create a safe environment in the classroom and lab.

Signed and dated,

Parent's or Guardian's statement:

I have read the Safety Skills sheet and give my consent for the student who has signed the preceding statement to engage in laboratory activities using a variety of equipment and materials, including those described. I pledge my cooperation in urging that she or he observe the safety regulations prescribed.

Signature of Parent or Guardian

Date