

**Laboratory Safety Rules**  
**THINK            PLAN            ACT**

**Be Prepared**

1. Review all laboratory procedures prior to conducting an experiment.
2. Always follow instructions and wait until you are told to begin before starting an investigation.
3. Do only the assigned experiments. You become a danger to yourself and others when you take off on your own.

**Be Careful**

4. Never eat or taste anything in the laboratory. This includes food, drinks and gum as well as chemicals found in the laboratory.
5. Wear safety goggles, laboratory aprons, and gloves when instructed to do so.
6. Use proper ventilation when working with chemicals that produce gases.
7. Tie back long hair. Avoid dangling jewelry and loose clothing that may become caught in equipment or become a fire hazard.
8. Never use broken or chipped glassware.
9. Wash your hands after every experiment.
10. Pay attention. Avoid “horsing around.” Respect the laboratory equipment and chemicals. Accidents can be avoided if you think before you act.
11. Avoid becoming tangled in electric cords. Never touch the cord with wet hands. Keep electric cords away from water. Use the plug to disconnect the cord from the socket.

**Be Neat**

12. Keep your work area clean. Dispose of waste materials in appropriate containers. Rinse out containers and put away equipment when you are finished.
13. Keep all books and materials away from the work area.
14. Turn off electrical equipment when you have completed the laboratory investigation.

**Be Alert**

15. Always add acids and bases to water. The other way around can lead to serious injury.
16. If you spill acid or base on your skin, flush the area immediately with water. Tell your teacher. Acid spills should also be neutralized with baking soda.
17. Report all accidents and injuries to your teacher immediately. Immediate first aid will be done in the lab. Injuries will be treated by the school nurse and reported to your parents.

## Laboratory Safety Symbols

### Wear Safety Goggles



Safety goggles protect your eyes from chemical splatters. They should always be worn when chemicals are to be mixed or when fumes may be irritating to the eyes. Goggles are also used when there may be a danger of flying debris. IF chemicals splash into your eye, flush the eye immediately with water and alert your teacher.

### Wear Laboratory Apron



The laboratory apron is protection against corrosive chemicals. When you see this symbol, be aware that the chemicals can burn through cloth or may stain your clothing. Use extra care when working with these chemicals.

### Flame/Heat



This symbol warns that you will be working with either an open flame or a hot plate. Use extreme care to avoid severe burns. When working with hot plates, do not test the temperature by touching the plate. Avoid putting your face over boiling liquids. Never point a container of hot liquid at someone. Keep flammable materials away from the heat source. Check to make sure that containers are heat-proof. Turn off gas jets and hot plates when you finish using them. Treat burns with cold water.

### Sharp/Pointed Object



Avoid cutting yourself by being extra careful using probes and scalpels.

### Dangerous Chemical/Poison



Use extra caution when you see this symbol. Wash your hands thoroughly after working with poisons or dangerous chemicals. Follow warnings in the procedure. Flush skin immediately with water if a spill occurs.

### Corrosive Substance



Corrosive means that something can cause a severe chemical burn. Avoid skin contact. Wear safety goggles. Follow instructions very carefully. Report accidents immediately.

### Electrical Hazard



This symbol warns that there is a danger of electrical shock if care is not taken to follow the safety rules about working with electricity. NEVER touch an electrical wire or equipment with wet hands. Use extreme care when working with liquids near electrical equipment such as hot plates and microscopes.

### Biohazard



This symbol warns that special precautions must be taken when handling this type of material. Read procedures carefully. Avoid contact with your mouth, nose and eyes. This material may require special protective clothing such as rubber gloves. Special clean-up procedures may be required to disinfect the work area.