

Laboratory Safety Rules

(ADAPTED FROM THE SAFETY CONTRACT THAT FLINN SCIENTIFIC PUBLISHES FOR PUBLIC USE ONLINE AT WWW.FLINNSCI.COM).

Introduction and Purpose

Science offers “hands-on” laboratory experiences. You may be doing lab activities that require the use of chemicals and equipment that can potentially be hazardous. In this class, **SAFETY** is the #1 priority! To ensure a safe learning environment for everyone, you must adhere to the following safety guidelines at all times. This contract is to be signed by the student and parent/guardian. It will then be kept on file at school. The rules and guidelines must be kept in your science notebook/binder for reference throughout the year.

I. General guidelines

- A. Follow all instructions carefully.
- B. Never work alone in the lab.
- C. Never touch equipment, chemicals, or other materials without permission.
- D. No food, drinks, gum, or candy in the lab.
- E. **Perform only authorized experiments!!!**
- F. Be on your best behavior in lab—no horseplay, practical jokes, or pranks!
- G. Keep your work area clean and tidy at all times.
- H. Know the location of and how to use lab safety equipment.
- I. Always be alert to potential hazards and work cautiously in the lab.
- J. Dispose of chemicals according to the teacher’s directions. No solids in the sink! Put nothing in the sink without consulting your teacher.
- K. Read all labels carefully before using chemicals.
- L. Keep your hands away from face, mouth, eyes, and body during experiments and wash them before you leave the lab.
- M. Clean, rinse, and dry all equipment and return it to its proper place.
- N. Never leave your lab station unattended!
- O. Never remove anything from the classroom without teacher permission.

II. Clothing

- A. Chemical **splash goggles** and aprons must be worn during all laboratory experiments.
- B. Inform the teacher if you wear contacts.
- C. Dress appropriately for lab—wear closed-toe shoes, tie hair back, remove rings and watches, and do not wear loose clothing.

III. Accidents and Injuries

- A. Report ALL accidents to your teacher immediately—even the small ones!
- B. Chemicals in the eye should be flushed with tepid water from the eyewash for 15—20 minutes.
- C. Chemicals on the skin should be washed with soap and water, or in the case of a large-scale spill the safety shower should be used.

IV. Handling Chemicals

- A. Consider all chemicals dangerous—do not touch, taste, or smell without specific instructions. Use the wafting technique when testing for odor.
- B. Check labels twice before using a chemical. Take only the amount you need.
- C. Never return unused chemicals to their original container.
- D. When using concentrated acids and bases, practice extreme caution. Add acid to water when diluting concentrated acids.
- E. Do not use flammable materials near open flames.
- F. Be very careful when carrying chemicals around the room.

V. Handling Glassware and Equipment

- A. Never handle broken glass with bare hands. Notify the teacher if you break something.
- B. Broken glass is only disposed of in the broken glass container—never in the regular trash.
- C. Be careful using electrical equipment—make sure plugs and cords are in good condition and that your hands are dry.
- D. Check glassware before use and report any chips or cracks.
- E. Use the correct equipment for the task.
- F. Use safety equipment when handling heated equipment and do not place hot glass directly on the lab table or under cold water.

VI. Heating Substances

- A. Follow all instructions and safety precautions when using a gas burner.
- B. Never leave a lit burner unattended.
- C. Direct substances being heated away from yourself or anyone else.
- D. Use insulating materials or tongs when handling heated equipment.
- E. Do not place hot equipment on the lab table—use an insulating pad or wire gauze.
- F. Do not place hot equipment on a balance—let it cool first.