

Science and Laboratory Safety Rules

Purpose:

Science is a hands-on laboratory class. You will be doing many laboratory activities which require the use of hazardous chemicals and equipment. Safety in the science classroom is the #1 priority for students, teachers, and parents. To ensure a safe science classroom, a list of rules has been developed and provided to you in this student safety contract.

General Safety Rules:

1. The safety rules are **NOT** flexible. **All persons will follow all the rules all the time.**
2. **Always read through the experiment before beginning.** Note any hazards or cautions.
3. **Do NOT perform unauthorized experiments.**
4. **Never put anything in your mouth** to taste or eat in the laboratory unless you are specifically told to do so.
5. **Never eat or drink food in the laboratory. Do NOT** eat, drink or cook in any laboratory equipment.
6. **Report all accidents immediately to the instructor.**
7. **Report all spills to the instructor immediately...** he/she will figure out how to clean it properly.
8. **Know the location** of the...
 - first aid equipment _____
 - eyewash _____
 - fire blanket _____
 - fire extinguisher _____
 - emergency shutoff switch _____
9. **You must remain at your designated lab table,** except to obtain necessary lab equipment or materials.
10. **Always use clean laboratory equipment.**
11. **Never leave equipment unattended,** especially open flames and chemicals. **Never** leave any hot plates, gas burners or water faucets on for longer than necessary.

Dress Code:

12. **Use goggles while performing, observing, or supervising activities that involve hazards to the eyes.**
13. Wear older clothing (if possible), closed-toed shoes, and secure any loose sleeves or jewelry before beginning any laboratory.
14. **Long hair must be tied back** and must be kept out of the way of flames, hot plates and chemicals... Remember, hair burns better than paper and most hair products are extremely flammable.

Heating and Fire Safety:

15. **Do NOT heat chemicals unless told specifically to do so.** A chemical that is harmless while cool can be dangerous when heated...like, BOOM!!!
16. **Keep your work area clean and free** from unnecessary papers, books and equipment.
17. **Never position the mouth of the test tube towards yourself or anyone else** while heating a substance in it. Remember... burns and scars can be permanent.
18. Some equipment may not seem hot by looking at it, but can cause extreme burns. "Feel" for heat before touching anything that might have been heated or use a clamp or tongs.
19. **Do NOT heat a liquid in a closed container.** The expanding gases produced may blow the container apart, injuring people... causing permanent scars and/or burns!

Using Chemicals Safely:

20. **Handle all toxic and flammable substances with care** and in well-ventilated areas.
21. **Never taste, touch or smell unknown chemicals. Waft** any chemicals that need to be smelled.
22. Keep all container lids **closed** when a chemical is not being used.
23. **Never pour chemicals back into the STOCK container.** Take only the amount you need and pour any excess down the drain, or in a specified container.
24. **Use a suction bulb pipette** (or eyedropper) **to transfer chemicals.** Never use mouth suction.
25. When diluting an acid, **always pour the acid into water; never water into acid!**
26. Be **extra careful** when using acids or bases. If any acids or bases get on your skin or clothing, rinse them immediately with lots of cold water.

Using Glassware and Sharp Instruments Safely:

27. **Clean all glassware carefully and thoroughly**, do not leave any soap or oily residue on glassware.
28. **Do NOT attempt to dry out test tubes or other glassware by forcing paper towels into them.** Simply let them air dry.
29. **Do NOT force glass tubing into stoppers.** Use a drop of water or glycerine and wrap a towel around the tube to prevent cuts.
30. **Properly dispose of broken glassware.** Never leave broken glassware or attempt to hide it by kicking it under something or sweeping it into a sink. Tell the instructor about broken glassware immediately!
31. Handle scalpels and razors with **extreme care. Always cut away** from yourself.

Working with Live Organisms:

32. **No experiments that will cause pain, discomfort or harm** to animals should be performed.
33. Clean your hands thoroughly after handling any organisms or materials the organisms came in contact with.

End-of-Experiment Rules:

34. **Clean your work area at the conclusion of the experiment** as you instructor directs.
35. **Do NOT put anything in the sinks**, such as trash, pieces of food, or any paper products.
36. **Wash your hands before and after every experiment.**

Science and Laboratory Safety Contract:

I, _____, (student's name) have read and agree to follow all of the safety rules set forth in this contract. I realize that I must obey these rules to ensure my own safety, and that of my fellow students and instructors. I will cooperate to the fullest extent with my instructor and fellow students to maintain a safe lab environment. I will also closely follow the oral and written instructions provided by the instructor. I am aware that any violation of this safety contract that results in unsafe conduct in the laboratory or misbehavior on my part, may result in being removed from the laboratory, detention, receiving a failing grade, and/or dismissal from the course.

Student Signature _____ Date _____

Dear Parent or Guardian:

We feel that you should be informed regarding the school's effort to create and maintain a safe science classroom/laboratory environment. With the cooperation of the instructors, parents, and students, a safety instruction program can eliminate, prevent, and correct possible hazards. You should be aware of the safety instructions your son/daughter will receive before engaging in any laboratory work. Please read the list of safety rules above. No student will be permitted to perform laboratory activities unless this contract is signed by both the student and parent/guardian and is on file with the teacher. Your signature on this contract indicates that you have read this Science and Laboratory Safety Rules Contract, are aware of the measures taken to ensure the safety of your son/daughter in the science laboratory, and will instruct your son/ daughter to uphold his/her agreement to follow these rules and procedures in the laboratory.

Parent/Guardian Signature _____ Date _____

Science and Laboratory Safety Rules Poster Assignment:

- Choose one of the safety rules above and construct a safety poster on an 8 ½ x 11 sheet of paper.
- It must be **colorful** and **creative** and the rule must be **boldly** stated somewhere on the poster.
- Put your name, period, and due date on the back of the poster.

Suggestions: Show what would happen if the rule were broken compared to when the rule is followed. Make it funny... startling... catchy.