

Flinn Scientific's Student Safety Contract

PURPOSE

Science is a hands-on laboratory class. You will be doing many laboratory activities which require the use of hazardous chemicals. 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. These rules must be followed at all times. Two copies of the contract are provided. One copy must be signed by both you and a parent or guardian before you can participate in the laboratory. The second copy is to be kept in your science notebook as a constant reminder of the safety rules.

GENERAL RULES

1. Conduct yourself in a responsible manner at all times in the laboratory.
2. Follow all written and verbal instructions carefully. If you do not understand a direction or part of a procedure, ask the instructor before proceeding.
3. Never work alone. No student may work in the laboratory without an instructor present.
4. When first entering a science room, do not touch any equipment, chemicals, or other materials in the laboratory area until you are instructed to do so.
5. Do not eat food, drink beverages, or chew gum in the laboratory. Do not use laboratory glassware as containers for food or beverages.
6. Perform only those experiments authorized by the instructor. Never do anything in the laboratory that is not called for in the laboratory procedures or by your instructor. Carefully follow all instructions, both written and oral. Unauthorized experiments are prohibited.
7. Be prepared for your work in the laboratory. Read all procedures thoroughly before entering the laboratory.
8. Never fool around in the laboratory. Horseplay, practical jokes, and pranks are dangerous and prohibited.
9. Observe good housekeeping practices. Work areas should be kept clean and tidy at all times. Bring only your laboratory instructions, worksheets, and/or reports to the work area. Other materials (books, purses, backpacks, etc.) should be stored in the classroom area.
10. Keep aisles clear. Push your chair under the desk when not in use.

11. Know the locations and operating procedures of all safety equipment including the first aid kit, eyewash station, safety shower, fire extinguisher, and fire blanket. Know where the fire alarm and the exits are located.
12. Always work in a well-ventilated area. Use the fume hood when working with volatile substances or poisonous vapors. Never place your head into the fume hood.
13. Be alert and proceed with caution at all times in the laboratory. Notify the instructor immediately of any unsafe conditions you observe.
14. Dispose of all chemical waste properly. Never mix chemicals in sink drains. Sinks are to be used only for water and those solutions designated by the instructor. Solid chemicals, metals, matches, filter paper, and all other insoluble materials are to be disposed of in the proper waste containers, not in the sink. Check the label of all waste containers twice before adding your chemical waste to the container.
15. Labels and equipment instructions must be read carefully before use. Set up and use the prescribed apparatus as directed in the laboratory instructions or by your instructor.
16. Keep hands away from face, eyes, mouth and body while using chemicals or preserved specimens. Wash your hands with soap and water after performing all experiments. Clean all work surfaces and apparatus at the end of the experiment. Return all equipment clean and in working order to the proper storage area.
17. Experiments must be personally monitored at all times. You will be assigned a laboratory station at which to work. Do not wander around the room, distract other students, or interfere with the laboratory experiments of others.
18. Students are never permitted in the science storage rooms or preparation areas unless given specific permission by their instructor.
19. Know what to do if there is a fire drill during a laboratory period; containers must be closed, gas valves turned off, fume hoods turned off, and any electrical equipment turned off.
20. Handle all living organisms used in a laboratory activity in a humane manner. Preserved biological materials are to be treated with respect and disposed of properly.

21. When using knives and other sharp instruments, always carry with tips and points pointing down and away. Always cut away from your body. Never try to catch falling sharp instruments. Grasp sharp instruments only by the handles.
22. If you have a medical condition (e.g., allergies, pregnancy, etc.), check with your physician prior to working in lab.

CLOTHING

23. Any time chemicals, heat, or glassware are used, students will wear laboratory goggles. There will be no exceptions to this rule!
24. Contact lenses should not be worn in the laboratory unless you have permission from your instructor.
25. Dress properly during a laboratory activity. Long hair, dangling jewelry, and loose or baggy clothing are a hazard in the laboratory. Long hair must be tied back and dangling jewelry and loose or baggy clothing must be secured. Shoes must completely cover the foot. No sandals allowed.
26. Lab aprons have been provided for your use and should be worn during laboratory activities.

ACCIDENTS AND INJURIES

27. Report any accident (spill, breakage, etc.) or injury (cut, burn, etc.) to the instructor immediately, no matter how trivial it may appear.
28. If you or your lab partner are hurt, immediately yell out "Code one, Code one" to get the instructor's attention.
29. If a chemical splashes in your eye(s) or on your skin, immediately flush with running water from the eyewash station or safety shower for at least 20 minutes. Notify the instructor immediately.
30. When mercury thermometers are broken, mercury must not be touched. Notify the instructor immediately.

HANDLING CHEMICALS

31. All chemicals in the laboratory are to be considered dangerous. Do not touch, taste, or smell any chemicals unless specifically instructed to do so. The proper technique for smelling chemical fumes will be demonstrated to you.
32. Check the label on chemical bottles twice before removing any of the contents. Take only as much chemical as you need.
33. Never return unused chemicals to their original containers.

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P.O. Box 219, Batavia, IL 60510
1-800-452-1261 • Fax: (866) 452-1436
flinn@flinnsci.com • www.flinnsci.com

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34. Never use mouth suction to fill a pipet. Use a rubber bulb or pipet pump.
35. When transferring reagents from one container to another, hold the containers away from your body.
36. Acids must be handled with extreme care. You will be shown the proper method for diluting strong acids. Always add acid to water, swirl or stir the solution and be careful of the heat produced, particularly with sulfuric acid.
37. Handle flammable hazardous liquids over a pan to contain spills. Never dispense flammable liquids anywhere near an open flame or source of heat.
38. Never remove chemicals or other materials from the laboratory area.
39. Take great care when transporting acids and other chemicals from one part of the laboratory to another. Hold them securely and walk carefully.

HANDLING GLASSWARE AND EQUIPMENT

40. Carry glass tubing, especially long pieces, in a vertical position to minimize the likelihood of breakage and injury.
41. Never handle broken glass with your bare hands. Use a brush and dustpan to clean up broken glass. Place broken or waste glassware in the designated glass disposal container.
42. Inserting and removing glass tubing from rubber stoppers can be dangerous. Always lubricate glassware (tubing, thistle tubes, thermometers, etc.) before attempting to insert it in a stopper. Always protect your hands with towels or cotton gloves when inserting glass tubing into, or removing it from, a rubber stopper. If a piece of glassware becomes "frozen" in a stopper, take it to your instructor for removal.
43. Fill wash bottles only with distilled water and use only as intended, e.g., rinsing glassware and equipment, or adding water to a container.
44. When removing an electrical plug from its socket, grasp the plug, not the electrical cord. Hands must be completely dry before touching an electrical switch, plug, or outlet.
45. Examine glassware before each use. Never use chipped or cracked glassware. Never use dirty glassware.
46. Report damaged electrical equipment immediately. Look for things such as frayed cords, exposed wires, and loose connections. Do not use damaged electrical equipment.
47. If you do not understand how to use a piece of equipment, ask the instructor for help.
48. Do not immerse hot glassware in cold water; it may shatter.

HEATING SUBSTANCES

49. Exercise extreme caution when using a gas burner. Take care that hair, clothing and hands are a safe distance from the flame at all times. Do not put any substance into the flame unless specifically instructed to do so. Never reach over an exposed flame. Light gas (or alcohol) burners only as instructed by the teacher.
50. Never leave a lit burner unattended. Never leave anything that is being heated or is visibly reacting unattended. Always turn the burner or hot plate off when not in use.
51. You will be instructed in the proper method of heating and boiling liquids in test tubes. Do not point the open end of a test tube being heated at yourself or anyone else.
52. Heated metals and glass remain very hot for a long time. They should be set aside to cool and picked up with caution. Use tongs or heat-protective gloves if necessary.
53. Never look into a container that is being heated.
54. Do not place hot apparatus directly on the laboratory desk. Always use an insulating pad. Allow plenty of time for hot apparatus to cool before touching it.
55. When bending glass, allow time for the glass to cool before further handling. Hot and cold glass have the same visual appearance. Determine if an object is hot by bringing the back of your hand close to it prior to grasping it.

QUESTIONS

56. Do you wear contact lenses?
☐ YES ☐ NO
57. Are you color blind?
☐ YES ☐ NO
58. Do you have allergies?
☐ YES ☐ NO
If so, list specific allergies _____

AGREEMENT

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 Student Safety 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

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Safety Contract Summary

Name: _____

Period: _____ Date: _____

Fill in the blanks with the appropriate word(s). The numbers refer to the rule numbers on the safety contract.

General Guidelines:

1. Be _____ at all times in the lab.
2. Follow all _____; ask if you do not _____.
3. Never work _____ or without the _____ in the room.
4. Do not _____ lab materials until told to do so.
5. No _____ or _____ or _____ in the lab.
6. Carefully follow all written and oral _____. No _____ experiments.
7. Be _____. Read all _____ thoroughly before beginning.
8. Horseplay, practical jokes, and pranks are _____ and _____.
9. Keep your work area _____ and _____ at all times. Other _____ should be out of the way under your desk.
10. Keep _____ clear. Push _____ under tables when not in use.
11. Know where the safety equipment is and how to operate it.
 - a. First aid- _____
 - b. Fire extinguisher- _____
 - c. Fire alarm- _____
 - Sinks/eyewash station- _____
12. Always work in a _____ area.
13. Be _____ and use _____ in the lab. Notify the teacher of any _____ conditions.
14. Dispose of all chemical waste _____.
 - a. _____ -water and chemicals designated by teacher go here
 - b. _____ -all other go hereRead labels... follow teacher direction!!!
15. Read _____ and equipment _____ carefully. Set up and use equipment only as _____.
16. Keep hands away from _____, _____, _____ and _____ while finished with lab. Clean _____ areas. Return all equipment _____ for the next group.
17. Monitor _____ at all times. Stay at your _____ station.
18. N/A
19. During a fire drill, be sure to leave your lab area in a _____ condition.
20. Handle all living organisms and biological materials with _____.
21. Carry sharp objects with tips and points pointing _____ and away. Always _____ away from your body.
22. If you have a _____ condition, check with your physician prior to working in lab.

Clothing:

23. Goggles must be worn when _____, _____, or _____ are used. NO _____!!!
24. Contact lenses should not be worn in the lab unless you have _____ from your teacher.
25. Dress properly for lab work. _____ hair, _____ jewelry. _____ or _____ clothing are a hazard and need to be tied back or secured. You must wear closed toed _____ in lab.

26. _____ maybe provided for your use.

Accidents:

27. Report any _____ or _____ to your teacher at once, no matter how minor.
28. If you or your lab partner gets hurt, yell out _____ immediately to get the attention.
29. If chemical splashes in your eye(s), use eyewash for _____ minute's minimum.
30. Never touch _____.

Handling Chemicals:

31. Do not _____, _____, or _____ any chemicals unless specifically _____ to do so.
32. Check _____ on chemical bottles twice. Take only as much as you _____.
33. Never _____ unused chemicals to the original containers.
34. Never use your _____ to fill a pipet.
35. When transferring chemicals, hold the containers _____ from your body.
36. Be extremely careful with acid. Always add _____ to _____.
37. Never handle or use _____ liquids near open _____ or a _____ source.
38. Never _____ chemicals or other _____ from the lab area.
39. Hold _____ and other chemicals _____ and walk _____.

Handling Glassware and Equipment:

40. Carry _____ tubing vertically to avoid breakage and injury.
41. Use a _____ and _____ to clean up broken glass and place in the _____ glass disposal container.
42. The teacher will insert all _____ tubing into rubber _____.
43. Wash bottles will only contain distilled _____ and is used for _____ glassware or adding water to a _____.
44. Remove electrical plugs by the _____ not by the _____. Make sure your hands are _____.
45. Never use _____ or _____ or _____ glassware.
46. Report _____ electrical equipment immediately. Look for frayed _____, exposed _____, and loose _____.
47. If you do not _____ how to use a piece of equipment, ask the _____.
48. Do not immerse _____ glassware in _____ water.

Heating Substances:

49. When using a gas burner, keep _____, _____, and _____ a safe distance from the flame. Do not put any _____ in the flame with out specific permission. Never reach _____ a flame.
50. Never leave a burner _____. Keep watch when anything is being _____ or is visibly _____. Turn the burner or hot plate _____ when not in use.
51. Heat and boil liquids as _____. Point the open end of a test tube _____ from yourself or any one else.
52. Set heated _____ and _____ aside to cool. Use _____ to pick up or move hot objects.
53. Never _____ into a container that is being _____.
54. Use an _____ pad under hot equipment. Allow to _____ before touching.
55. Determine if an object is hot by bringing the back of your _____ close to it. _____ and _____ glass look the same.