# Waltham High School Student Safety Contract<sup>1</sup>

Mr. Bigler, WHS, 2007–08

#### Introduction

Science is about discovery, and one way you will be making discoveries is through science experiments. Some of these experiments make use of equipment and materials that must be used safely. The science department continues to do its part in assuring that you will have a safe experience, but you must do your part, too. Please read the following safety contract, then sign it signifying that you understand it. Have a parent or guardian sign it, too, so that we can be sure that everyone is committed to safe laboratory practice.

You should know that you have to continue to earn the right to use the science laboratory!

#### General Rules

- 1. Act appropriately at all times in the laboratory. The same high level of care and attentiveness is required as might be found in a wood working shop or any place where there are potential hazards. The laboratory is not the place for horseplay, jokes, or pranks. In other words, think before acting. And perform procedures with deliberation; do not rush.
- 2. Follow all written and verbal instructions carefully. If you do not understand a direction or part of the procedure, **ask the teacher** before proceeding.
- 3. 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.
- 4. Do not eat or drink in a science classroom.
- 5. Do not drink from containers used in the laboratory.
- 6. Be prepared for your investigation. Read all procedures carefully before doing experiments.
- 7. Keep the work area clear of everything except for materials, data sheets, and instruction sheets. Keep book bags stored away from the work area.
- 8. Keep aisles clear. Do not crowd around hot plates, balances, or laboratory stations.
- 9. Your teacher will describe the location of exits and all safety equipment. Know where the closest fire alarm is located.
- 10. Notify the teacher immediately of any unsafe conditions you observe.
- 11. Labels and equipment instructions must be read carefully before use. Set up and use the prescribed equipment as directed in the laboratory instructions or by your instructor.
- 12. When using chemicals or preserved specimens, keep hands away from face, eyes, mouth and body. Wash your hands with soap and water after performing all experiments. Clean all work surfaces and equipment at the end of the experiment, and return all equipment to the proper storage area.

<sup>&</sup>lt;sup>1</sup>Adapted from "Flinn Scientific's Student Safety Contract"

- 13. Do not leave an experiment unattended. For example, do not wander from your assigned area to talk with friends.
- 14. Students are not to enter science storage areas except under the direct supervision of their teacher.
- 15. If you have a particular allergy or sensitivity to chemicals, please inform your teacher.

## Clothing

- 1. Any time chemicals, heat or glassware are used, students, teachers, and visitors will use laboratory goggles. There are no exceptions to this rule. (Eyeglasses or contact lenses are not substitutes for goggles.)
- 2. Proper dress is important. Long hair must be tied back, and dangling jewelry and baggy clothing are not appropriate. Shoelaces must be tied, and sandals are not allowed.
- 3. Lab aprons should be used when there is the danger of chemical spills or biological contamination.

## Accidents and Injuries

- 1. Report any accident (spill, breakage, etc.) or injury (cut, burn, etc.) to the teacher.
- 2. If a chemical splashes in your eye(s) or on your skin, flush with water. Inform the instructor immediately.

# **Handling Chemicals**

- 1. All chemicals in the laboratory are to be considered dangerous. Do not touch, taste, or smell any chemicals unless specifically instructed to do so.
- 2. Check the label on chemical bottles before using.
- 3. Never return unused chemicals to their original containers.
- 4. When transferring chemicals from one container to another, hold the containers away from your body.
- 5. Acids require special care. You will be shown the proper way to dilute acids, but you will always add acid **TO** water.
- 6. Never dispense flammable liquids anywhere near an open flame or source of heat.
- 7. Dispose of all chemical waste properly. Your instructor will tell what materials can be poured down the drain and what materials must be placed in a waste container. In general, 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.

#### Handling Glassware and Electrical Equipment

- 1. 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.
- 2. When working with glass tubing, follow the specific instructions of your teacher. Puncture wounds by broken glass are some of the most common laboratory injuries.
- 3. Examine glassware before each use. Never used chipped or cracked glassware. Never use dirty glassware.
- 4. Do not immerse hot glassware in cold water; it may shatter.
- 5. 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.
- 6. Report damaged electrical equipment immediately. Look for things such as frayed cords, exposed wires, and loose connections. Do not use damaged electrical equipment.
- 7. If you do not understand how to use a piece of equipment, ask the instructor for help. There is no shame in asking for an explanation.

## **Heating Substances**

- 1. Be careful around any heating device, but be especially cautious around open flames. Take care that hair, clothing and hands are a safe distance from the flame.
- 2. Do not put any substance into a flame unless specifically instructed to do so.
- 3. Do not reach over any heating device.
- 4. Do not leave a heating device unattended, and turn off a heating device when not in use.
- 5. 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.
- 6. Heated metals and glass remain very hot for a long time. They should be identified as being hot and set aside to cool.
- 7. Never look into a container that is being heated.
- 8. Be careful not to place hot equipment on flammable material.
- 9. Use tongs or heat-protective gloves if necessary.

Additional precautions may be given at the beginning of laboratory activities.

permitted to perform laboratory activities unless this guardian.	contract is signed by both the student and
 Student Signature	Date
 Parent/Guardian Signature	Date

Your signature on this contract indicates that you have read this Safety Contract and that you subscribe to our efforts to insure the safety of students and staff during science laboratory activities. No student