#### Student Name:



# Laboratory Safety Contract

**PWCS Office of Science and Family Life Education** Jason Calhoun, Supervisor

Independent laboratory study is essential for the mastery of scientific principles. During lab study, students will be doing activities that may require the use of hazardous materials and equipment. Every student has a right to be in a safe and productive learning environment. Prior to conducting any laboratory work, the attached agreement must be signed by both student and parent/guardian and on file with the instructor. Horseplay, practical jokes, and pranks are dangerous and are prohibited. Unauthorized experiments are not permitted. By entering the laboratory, students agree to follow the instructions of the classroom teacher. Students will read all procedures thoroughly and complete any necessary pre-lab work before beginning. Whenever an injury or accident occurs, students must immediately report the incident to the teacher.

#### A. Behavior in the Science Classroom

**Providing A World-Class Education** 

- 1. Students are not to touch equipment until given proper instructions and permission by the teacher.
- 2. Students should observe good housekeeping practices. Work areas should be kept clear of books and backpacks. Work areas should be thoroughly cleaned before exiting the lab.
- 3. Food, drink, cosmetics, and gum are not allowed in the science classroom.
- 4. Skin must be protected when working with chemicals. Keep your hands away from your face during laboratory work. Right before leaving the lab area, students should thoroughly wash their hands with soap and water.
- 5. Students wearing short skirts, shorts, sandals, and/or open-toe shoes may be restricted from laboratory work.
- 6. Students should know what to do in the event of a fire.

## **B.** Laboratory Safety Equipment

- 1. Students will wear splash-proof safety goggles provided by the school while engaged in certain activities as defined by the Virginia State Code, section 22 10-2: "Every student participating in laboratory work involving caustic or explosive chemicals or hot liquids or solids shall be required to wear industrial quality eye protection devices at all times."
- 2. Contact lenses are discouraged in the laboratory due to the potential for harmful fumes to flow through the gas-permeable surface. Should a student wear contact lenses, he/she should request goggles without vents for use in laboratory work.
- 3. Laboratory aprons and gloves must be worn as directed by the instructor.
- 4. Each laboratory is equipped with specialized safety equipment for use in general and emergency situations. Students are responsible for knowing the location, function, and safe operation of each:
  - **Fume Hood:** Provided for storage and use of volatile, flammable, and fuming chemicals. •
  - **Fire Extinguisher:** CO<sub>2</sub> or dry chemical propellant tanks used for extinguishing laboratory fires.
  - Fire Blanket: A dense, non-flammable material used to smother fires on hair or clothing.
  - Shower: A saturating stream of water used to wash off chemicals in the event of a large personal • spill.
  - **Eve Wash:** A steady stream of water provided to rinse the eves, nose, or mouth in the event of a • chemical spill.

## C. Equipment Usage

- 1. The cost of replacing glassware or equipment caused by *negligence* could be the responsibility of the student.
- 2. Students should carefully examine glassware before use. Never heat chipped or cracked glassware.
- 3. Students should never handle broken glassware with bare hands. Broken pieces should be swept up using a broom and dustpan and placed in the designated broken glass container.

## **D. Handling Chemicals and Biological Materials**

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. When diluting acid, be sure to carefully add the acid to the water (not vice versa). This reduces the risk of splashing.
- 3. Students are to dispose of all used materials according to the instructions of the teacher. Solid waste materials (glass, metal pieces, rocks, et cetera) should not be placed in the sinks. Chemical waste will typically need to be treated and neutralized before disposal.
- 4. Students should not handle or agitate any live or preserved biological specimens unless specifically directed by the instructor. Students should wash hands thoroughly after handling all specimens.
- 5. No chemicals or biological specimens may leave the laboratory room under any circumstances.
- 6. If a chemical should splash on skin, immediately flush with running water and notify the instructor.
- 7. Should a laboratory emergency arise, students are to stop working, extinguish all burner flames and wait quietly until given instructions by the teacher.

#### **E. Heating Substances**

- 1. Students should exercise extreme caution when using a gas burner. Take care that long hair, loose clothing, and hands are at a safe distance from the flame at all times. Safe operation of the gas burner will be discussed, demonstrated, and practiced.
- 2. Students should exercise care when using an electric heating device, such as a hot plate. Do not use the device if the cords are frayed or the connections are loose.
- 3. Students should point any substances being heated away from people. Never look directly into the mouth of a piece of glassware that is being heated
- 4. Heated metals and glass remain very hot for a long time. You cannot always tell when these materials are hot. Handle with caution.

It is the student's responsibility to come to lab prepared, focused, and ready to work. The instructor reserves the right to remove any student from the laboratory as a response to recklessness or lack of adequate pre-lab preparation. These laboratory safety guidelines are designed to create a safe environment in which exploration can occur. Each student should feel safe and comfortable in the lab and confident in his/her abilities to safely handle lab materials and equipment. Every PWCS science instructor has the right to supplement these laboratory rules as appropriate to ensure the safety of all students under their supervision.

Student Agreement: I 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 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 removal from the laboratory, a grade penalty for the lab activity, parent conference, and/or administrative referral.

Parent or Guardian Acknowledgement: I am aware of the safety instructions my son or daughter will receive before engaging in any laboratory work. I understand 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 instructor. My signature on this contract indicates that I have read this Student Safety Contract, am aware of the measures taken to ensure the safety of my son or daughter in the science laboratory, and will instruct my son or daughter to uphold his or her agreement to follow these rules and procedures in the laboratory.

Student Signature

Date

Parent/Guardian Signature

Date

**Comments and/or Relevant Health Issues:** 

SIGN THIS SHEET AND SUBMIT TO INSTRUCTOR. KEEP A COPY OF SAFETY RULES ON FILE IN SCIENCE NOTEBOOK.