**PURPOSE:**

The science curriculum at G.P Vanier Secondary School is a hands-on laboratory experience. Students will be asked to participate in activities which require hazardous chemicals and/or potentially dangerous equipment. Safety in the science classroom is the #1 priority for students, teachers, and parents. To ensure a safe science classroom, a list of guidelines has been developed and provided to you in this student safety contract. These rules must be followed all the time no matter what. We ask that you read the rules carefully and sign a contract agreeing to these guidelines to safely participate in our curriculum. **PLEASE RETURN THE SIGNED AGREEMENT TO YOUR SCIENCE TEACHER BEFORE YOUR FIRST LAB DAY.**

**GENERAL GUIDELINES:**

1. Always conduct yourself in a responsible manner in the laboratory. Horseplay, practical jokes, and pranks are dangerous and prohibited.
2. Follow all the rules and verbal instructions carefully. If you do not understand a direction or a 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 the laboratory glassware as containers for food or beverages.
6. Perform only those experiments authorized by the instructor. Never do anything in the laboratory not called for in the laboratory procedures or by your instructor. Carefully follow all instructions, both is not 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. 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.
9. Keep aisles clear. Push your stool under the lab table when not in use. Remember: “ 4 on the Floor” – all four legs of the stools on the ground at all times.
10. 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 fire exits are located.
11. Always work in a well-ventilated area. Use the fume hood when working with volatile substances or poisonous vapors. Never place your head in the fume hood.
12. Be alert and proceed with caution in the laboratory. Move around the lab calmly, with awareness, at a walking pace. Notify the instructor immediately of any unsafe conditions you observe.
13. Dispose of all chemical waste properly. Never mix chemicals in sink drains. Sinks are meant to be used only for water and those solutions designated by the instructor. Solid chemicals, metals, matches, filter paper, and all the other insoluble materials are to be disposed of in the proper waste containers, not in the sink.
14. 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.
15. 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 (with detergent), rinse and dry all work surfaces (including the sink) and apparatus at the end of the experiment. Return all equipment clean and in working order to the proper storage area.
16. 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.
17. Students are never permitted in the science storage room or preparation room unless given specific permission by their instructor.
18. 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, any electrical equipment turned off.
19. Handle all living organisms used in laboratory activity in a humane manner. Preserved biological materials are to be treated with respect and disposed of properly.
20. When using knives and other sharp instruments, always carry with tips pointing down and away. Always cut away from your body. Never try to catch a falling sharp instrument. Grab sharp instruments only by the handle.

CLOTHING

1. Anytime chemicals, heat or glassware are used, ALL students will wear safety glasses or goggles. Students who wear reading glasses also **still must wear safety glasses unless otherwise told to by their teacher.**
2. 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 should completely cover the foot. Appropriate footwear as required by the teacher.
3. Lab aprons have been provided for your use and should be worn during laboratory activities, especially when using chemicals and heat.

ACCIDENTS AND INJURIES

1. Report any accidents (spill, breakage, etc.) or injury (cut, burn, etc.) to the instructor immediately, no matter how trivial it may appear.
2. If a chemical should splash in your eye(s) or on your skin, immediately flush with running water from the eye wash station for at least 20 minutes. Notify the instructor immediately.

HANDLING CHEMICALS

1. All chemicals in the laboratory are 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.
2. Check the label on chemical bottles twice before removing any of the contents. Take only as much chemical as you need.
3. Never return unused chemicals to their original containers.
4. Never use mouth suction to fill a pipette. Use a rubber bulb or pipette pump. Also, please do not wash a pipette bulb.
5. When transferring reagents from one container to another, hold the containers away from your body.
6. Acids must be handled with extreme care. You will be shown the proper method for diluting strong acid. Always add acid to water, swirl or stir the solution and be careful of the heat produced, particularly with sulfuric acid.
7. Handle flammable hazardous liquids over a pan to contain spills. Never dispense flammable liquids anywhere near an open flame or source of heat.
8. Never remove chemicals or other materials from the laboratory area.
9. Take great care when transferring acids and other chemicals from one part of the laboratory to another. Hold the securely and walk carefully.

HANDLING GLASSWARE AND EQUIPMENT

1. Carry glass tubing, especially long pieces, in a vertical position to minimize the likelihood of breakage and injury.
2. 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.
3. Inserting and removing glass tubing from rubber stoppers can be dangerous. Always lubricate glassware before trying 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.
4. Fill wash bottles only with distilled water and use only as intended, e.g., rinsing glassware and equipment, or adding water to a container.
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 cord.
6. Examine glassware before each use. Never use chipped or cracked glassware. Never use dirty glassware.
7. Report damaged electrical equipment immediately. Look for things such as frayed cords, exposed wires, and loose connections. Do not use damaged electrical equipment.
8. If you do not understand how to use a piece of equipment, ask the instructor for help.
9. Do not immerse hot glassware in cold water; it may shatter.

HEATING SUBSTANCES

1. Exercise extreme caution when using a gas burner. Take care that hair, clothing, and hands are a safe distance from the flame. 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 instructor.
2. 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.
3. You will be instructed in the proper method of heating and boiling liquids in test tubes. Do not point to the open end of a test tube that is being heated at yourself or anyone else.
4. Heated metals and glass remain heated for a long time. They should be set aside to cool and picked up with caution. Use tongs or heat-protective gloves if necessary.
5. Never look into a container that is being heated.
6. Do not place a hot apparatus directly on the laboratory desk. Always an insulating pad. Allow plenty of time for the hot apparatus to cool before touching it.
7. When bending glass, allow time for 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.

In addition to these general guidelines, ALWAYS abide by any other safety procedures provided by your instructor at the time of an activity.

Dear Students, Parents, and Guardians,

G.P. Vanier Secondary School Science Department feels 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 hazards.

Please take time to familiarize yourself with the guidelines established in the *Student Lab Safety Contract.* If you have any questions, contact your son or daughter's teacher Science Teacher via their school email (list is found on the G.P. Vanier Website) **After reading the Student Safety Contract, please complete the questions below and sign this agreement. Return this form to your science teacher on the first LAB Day.**

**QUESTIONS**

1. Do you wear contact lenses? YES NO
2. Are you color blind? YES NO
3. Do you have any allergies? YES NO

If YES, list specific allergies:

**STUDENT AGREEMENT**

**I,**  **(**students names) have read and agree to follow all of the safety rules set forth in the Student Lab Safety Contract. I realize that I must obey these rules to ensure my own safety, and that of my fellow students and instructors. I will fully cooperate with my instructor and fellow students to maintain a safe lab environment. I will also closely follow any oral and written instructions additionally provided by the instructor as part of a specific activity. **I am aware that any violation of this safety contract that results in unsafe conduct in the laboratory or misbehaviour on my part, may result in being removed from the laboratory, detention, receiving a failing grade, and/or dismissal from the course.**

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Student signature Date

**Parent or Guardian,** your signature on this contract indicates that you have read this Student Lab 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.

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Parent/Guardian signature Date