

Laboratory Safety Guidelines

Columbia River High School Science



General Safety Guidelines:

1. Only perform experiments specifically assigned by your teacher. Follow all instructions – written and verbal. If you are unsure of any procedure, ask your teacher. If you want to make changes or extensions get teacher approval.
2. Always be safety-conscious. Move about the laboratory in a safe manner. Keep desk top clear of materials except for necessary lab directions and notebooks. Place backpacks securely under lab tables.
3. Report all accidents. No accident is too small to report.
4. Know the locations of safety equipment in the laboratory; use only in emergencies. Know the location of fire exits.
5. Plan ahead. Become familiar with all of the health and safety hazards of equipment and chemicals in use. If you are not sure, ask.
6. Confine long hair and loose clothing while working in the laboratory; watch for flames and machinery.
7. Return cleaned equipment to its proper place when finished. Report any damage of equipment to the instructor.
8. Keep sinks clean and free of glassware.
9. If you feel faint at any time or think that watching something might make you faint please let your teacher know. Request to sit in a backed chair if necessary when on stools.
10. No unapproved experiments will be permitted at any time OR will be done by the student.
11. Rough-housing or other goofing-type behaviors will not be tolerated. The laboratory is a place where serious work should occur, and serious consequences for not acting appropriately will be enacted by the teacher.

Chemical Safety:

1. Safety goggles must be worn while working with any chemical that could be harmful to the eyes.
2. If a chemical is splashed or spilled on your skin, flush it away with plenty of water. If irritation or pain develops, report it immediately.
3. Use acids and bases with caution. Wipe up spilled material at the direction of the teacher. Watch out for eyes, skin, and clothing.
4. If you should get chemicals into your eyes, go directly to the eyewash fountain and gently flush with water. Report this immediately to your teacher.
5. Do not use unlabelled chemicals. Check label twice to be sure that you have the right bottle. Refer unlabelled containers to your teacher.
6. Handle only materials that you are assigned to work with. Never return chemicals to stock bottles.
7. Never use mouth for pipetting up poisons, corrosive liquids, organic solvents, live cultures, or contaminated materials. Use automatic pipettors at the direction of your teacher.

8. Unauthorized mixing of any chemicals is strictly forbidden.
9. Always add acids to water slowly, carefully, and with a gentle stirring action (solid glass rod only). This should generally be done in a large open beaker. Avoid overheating which often accompanies too rapid mixing. ACID INTO WATER... never the reverse.
10. Always wash your hands thoroughly at the end of the laboratory period. Keep your hands away from your face, eyes, and body, until they have been washed.
11. Do not consume food or water while in the laboratory; never taste chemicals. To smell the contents of a container, use a "wafting" action of the hand.

Glassware:

1. Inspect glassware before use and do not use chipped glassware, bring it to your teacher's attention.
2. Broken glass - clean up immediately with brush and pan. Broken glass must go into the broken glass container. Never throw broken glass into a garbage can.
3. Most glassware will be cleaned at the end of the lab by placing it in the. Please remove any labeling tape before placing in the dishwasher.

Avoiding Burns:

1. Use Bunsen burners or hot plates only at the direction of the teacher. Open flames are prohibited when flammable substances are in use in the laboratory. Never leave active burners unattended. Keep a lighted burner or hot plate away from clothing, books, or other combustibles. Lean away from top of Bunsen burner while it is being lit.
2. Hot glass looks just like cold glass. Use care when touching glass objects that have been heated. Use tongs to pick up hot glass containers.
3. Do not heat anything inside a closed container. When heating a test tube do not point the test tube toward anyone.

Electrical and Gas Precautions:

1. Before connecting equipment to a power source, examine all wiring for electrical defects and improper installation.
2. Make sure all electrical cords are securely on the table and not unnecessarily on the floor for people to trip over. Make sure all of the electrical equipment is set towards the middle of the lab table so it is not easily knocked off.
3. If you smell any gas immediately report it to the teacher. (400 wing rooms)
4. Do not handle the gas knobs or red emergency buttons. (400 wing rooms)

Sharp Object Safety:

1. Do not cut objects while holding them in your hands.
2. Use extreme care when handling scalpels and scissors, they are very sharp. Report any cut immediately to the teacher for proper medical care.
3. Sharp dissecting utensils will be used properly and only for procedures found in the lab.