
LABORATORY SAFETY AND CONDUCT GUIDELINES

Science is a hands-on laboratory activity. Safety in the science classroom is first priority for students, teachers and parents. In order to insure everyone's safety during laboratory activities, strict adherence to the following guidelines is expected. All students who enter the science classroom and laboratory must act responsibly. The following list of guidelines must be kept in your science folder as a constant reminder of departmental safety rules.

General Equipment and Lab Safety

1. Conduct yourself in a responsible manner at all times in the laboratory. Horseplay, "playing around", or any other terminology that fits inappropriate behavior during lab activities will not be tolerated and will result in suspension from lab.
2. Do not eat food, drink beverages (even bottled water) or chew gum while performing laboratory activities. Use laboratory equipment appropriately and only as instructed in the laboratory procedure. Beakers, flasks, test tubes and graduated cylinders are never to be used as food containers. Never attempt to drink from laboratory faucets.
3. When first entering a science room, do not touch any equipment, chemicals or other materials in the laboratory until you are instructed to do so.
4. Students must understand the proper utilization of science equipment before using. Always listen carefully when teachers explain the proper handling of lab equipment. Do not use any science equipment inappropriately. Inappropriate use of lab equipment will result in suspension from the laboratory.
5. Bring only your laboratory instructions, worksheets, and/or reports to the laboratory work area. Other materials (books, purses, book bags, etc.) should be stored in the classroom seating area, on or under your desk.
6. Complexity of equipment is not always an indicator of danger. Alcohol lamps, candles, and glass tubing are some of the least complex pieces of equipment students may use - however, in careless hands, may be some of the most dangerous.
7. ALWAYS report any injury to the science teacher - regardless of how minor! In most cases the student will report to the nurse's office for assistance. All injuries must be documented by the teacher.
8. Removal of laboratory supplies or equipment from the laboratory (classroom) constitutes theft and will be handled as described in the student Pathways handbook.
9. Emergency procedures must be thoroughly discussed, rehearsed and fully understood before the lab activity is started. Always read the entire procedure and make note of safety annotations before attempting any procedures.

10. A drench shower is located near each classroom. Eye wash stations are located at sinks and drench shower locations. These are for emergency use and are not toys.
11. *Safety goggles must be worn during any activity that involves heat, hazardous chemicals or possible breakage (sharps). Safety goggles are available in all science laboratory rooms. All students, who do not wear contact lenses, must use vented goggles. Contact lenses should not be worn in the laboratory unless you have permission from your instructor. Prescription glasses are no substitute for safety goggles. ***Important note:*** The wearing of safety goggles is mandatory for everyone in the lab and failure will result in suspension from lab.
12. Never dispense chemicals from an unlabeled container. Never carry stock bottles of chemicals away from the preparation table. Never return unused chemicals to the stock bottle. ****Always*** wear safety goggles when using hazardous chemicals. Handle all chemicals as if they are hazardous.
13. Always wash your hands thoroughly when you have finished using chemicals. Even small quantities of corrosive chemicals can irritate the eyes. Report to your teacher if you feel irritation or burning around your eyes. Always clean your lab station thoroughly when you have finished your lab activity using chemicals. Spilled chemicals of even the smallest quantities can be dangerous. A sponge is located at both utility sinks and must be used to clean laboratory stations.
14. Report the breakage of any lab apparatus or glassware as soon as possible. Let the teacher clean up the broken glass. Never handle broken glass with your bare hands. If a piece of glassware becomes “frozen” in a stopper, take it to your teacher for removal. Never discard broken glass in the classroom wastebaskets. Teachers must discard broken glass in the preparation room “sharps” waste container. A labeled sharps container is provided in each of the four preparation rooms. Breakage due to student negligence will result in the student paying a replacement charge.
15. Teacher note: All stock chemicals must be returned to the chemical storage room and not kept in the classroom. Only small quantities are allowed in the science classroom on a temporary basis.
16. All glassware and apparatus must be cleaned and dried before leaving class. Failure to leave your station clean and orderly will result in a lower activity score. Test tubes must be submersed in soapy water and cleaned with the appropriate size brush.
17. When using an alcohol lamp or gas burner -- keep flammable materials away from the flame. Leave your papers, textbook, and any other flammable materials either at your desk or off to the side away from the flame. Long hair must be tied back out of the way. Do not move the alcohol lamp or gas burner when ignited. Never reach over an exposed flame. Never leave a lit lamp or burner unattended. Never leave anything that is being heated or is visibly reacting unattended. Always turn the lamp, burner or hot plate off when not in use. Use an electric hot plate when boiling liquids. Shoes must completely cover the foot. No sandals allowed in lab! Never work around boiling liquids without safety goggles.

18. Corrosive liquids must be maintained at the teacher's preparation table or designated stock area. Never carry corrosives away from this location. Wash spilled corrosive liquids with lots of water. Corrosive liquids include acids (chromic, hydrochloric, nitric, acetic, butyric and sulfuric), solvents and ammonia. Corrosive solids include calcium oxide, calcium hydroxide, potassium hydroxide, sodium hydroxide, sodium phosphate, phenol, salicylic acid, tin chloride, phosphorous pentoxide, potassium chromate and the elements sodium, potassium, lithium, phosphorous and iodine. Read carefully the safety precautions annotated in the laboratory activity regarding the potential danger of corrosives.
19. Never use mouth suction to fill a pipette. Use a rubber bulb or pipette pump.
20. Always add acid to water, swirl or stir the solution and be careful of the heat produced, particularly with sulfuric acid. Always point the open of the container away from yourself and others.
21. When transferring reagents from one container to another, hold the containers away from your body.
22. Under no circumstances should you come in contact with mercury or lead. Report broken thermometers, barometers and leaking batteries to the teacher immediately. These items are almost extinct from the secondary science laboratory.
23. Dispose of chemicals as directed by the classroom teacher. Most of the time the small quantities used during lab will be washed down the classroom sink with plenty of water. In some instances, chemicals will be collected in a waste container identified by the teacher. Solid chemicals, metals, matches, filter paper, dialysis tubing, preserved animal parts and all other insoluble materials are to be disposed of in the proper waste containers, not in the sink. Always check with the teacher if you are unsure of the proper disposal procedure.
24. Never taste, smell, or bring near your eyes any chemicals. 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 laboratory activities.
25. Under no circumstances may chemicals leave the science classroom.
26. **REPEAT:** Always read through the entire lab instructions before starting the procedure. Pay close attention to the safety instructions before starting any procedure. Rehearse the lab procedure before actually performing the activity. Always follow all written and verbal instructions carefully. If you do not understand a direction or part of a procedure, ask the teacher before proceeding. Never work alone or unsupervised. No student may work in the laboratory without a teacher present. No unscheduled lab procedures will be performed -- in other words, no experimenting!
27. Always keep aisles open. Be sure adequate room is available to exit the classroom in case of emergency. Emergency evacuation procedures should be rehearsed in each classroom to ensure safe exit from the room. Never block the classroom doorway with apparatus, books, chairs, etc.
28. Be familiar with the location of all safety equipment/supplies. Rehearse the proper safety

procedures for fire, chemical spills, etc. Know what to do if there is a fire drill during a laboratory activity; containers must be closed, gas valves turned off, and any electrical equipment turned off.

29. Every effort must be made to be present on days that involve laboratory activity. It is the student's responsibility to make up missed work promptly on return to school. It is the student's responsibility to contact the teacher to secure an SRT pass and show up as scheduled. Failure to make up missed work (within school guidelines) will result in no credit.

Dissections and Animals and Microbiology/Histology sections omitted.

Laboratory Safety and Conduct Agreement

I have been given a copy of the Carmel High School Science Department Laboratory Safety Guidelines. I understand the rules and agree to observe them. I also agree to observe any and all additional safety rules and procedures/precautions that appear in writing in the instructional materials to which I am assigned. I also understand that the penalty of disobeying these rules/guidelines will result in suspension from lab activities. I further agree to keep these rules/guidelines in my class notebook or folder and to review them frequently.

Student Signature: _____

Student Printed Name: _____

Date and Class Period: _____