



LAB SAFETY CONTRACT ASU Preparatory Academy

PURPOSE

The Cambridge Science curriculum at ASU Preparatory Academy includes a hands-on laboratory experience. Students will be asked to participate in some activities, which require the use of hazardous chemicals and/or potentially dangerous equipment. Safety in the science classroom is the number one 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 safety contract. These rules must be followed at all times.

We ask that you read through the rules carefully before signing the syllabus and safety acknowledgement (online) agreeing to abide by these guidelines in order to safely participate in the laboratory.

GENERAL GUIDELINES

1. Conduct yourself in a responsible manner at all times in the laboratory.
2. Follow all written and verbal instructions carefully. If you do not understand a direction or part of a procedure, ask the instructor before proceeding.
3. Never work alone. No student may enter or work in the laboratory without an instructor present.
4. When first entering a science lab, 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 laboratory glassware as containers for food or beverages.
6. Perform only those experiments authorized by the instructor. Never do anything in the laboratory that is not called for in the laboratory procedures or by your instructor. Carefully follow all instructions, both written and oral: Unauthorized experiments are prohibited.
7. Be prepared for your work in the laboratory. Read all procedures thoroughly before entering the laboratory. Never fool around in the laboratory. Horseplay, practical jokes, and pranks are dangerous and prohibited.
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.
9. 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 exits are located.
10. Always work in a well-ventilated area. Use the fume hood when working with volatile substances or poisonous vapors. Never place your head into the fume hood.
11. Be alert and proceed with caution at all times in the laboratory. Notify the instructor immediately of any unsafe conditions you observe.
12. Dispose of all chemical waste properly. Never put chemicals in sink drains. Sinks are to be used only for water and those solutions designated by the instructor. 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.
13. 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.
14. Keep hands away from face, eyes, mouth and body while using chemicals or preserved specimens. Wash your hands with soap and water before and after performing all experiments. Clean (with soap), rinse and wipe 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.
15. 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.
16. Students are never permitted in the science storage room or preparation room.

17. 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.
18. Handle all living organisms used in a laboratory activity in a humane manner. Preserved biological materials are to be treated with respect and disposed of properly.
19. When using knives and other sharp instruments, always carry with tips and points pointing down and away. Always cut away from your body. Never try to catch falling sharp instruments. Grab sharp instruments only by the handles.

CLOTHING

20. Any time chemicals, heat or glassware are used, students will wear laboratory goggles. There will be no exceptions to this rule! Goggles will be available for each student, but students are allowed to bring their own if they wish.
21. 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. Full-length pants are required.

ACCIDENTS AND INJURIES

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

HANDLING CHEMICALS

24. All chemicals in the laboratory are to be 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.
25. Check the label on chemical bottles twice before removing any of the contents. Take only as much chemical as you need.
26. Never return unused chemicals to their original containers.
27. Never use mouth suction to fill a pipet. Use a rubber bulb or pipet pump.
28. When transferring reagents from one container to another, hold the containers away from your body.
29. 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.
30. Handle flammable hazardous liquids over a pan to contain spills. Never dispense flammable liquids anywhere near an open flame or source of heat.
31. Never remove chemicals or other materials from the laboratory area.
32. Take great care when transferring acids and other chemicals from one part of the laboratory to another. Hold them securely and walk carefully.

HANDLING GLASSWARE AND EQUIPMENT

33. Carry glass tubing, especially long pieces, in a vertical position to minimize the likelihood of breakage and injury.
34. Never handle broken glass with your bare hands. Notify the instructor immediately of any broken glassware.
35. Inserting and removing glass tubing from rubber stoppers can be dangerous. Always lubricate glassware before attempting 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.
36. Fill wash bottles only with distilled water and use only as intended, e.g., rinsing glassware and equipment, or adding water to a container.
37. When removing 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.
38. Examine glassware before each use. Never use chipped or cracked glassware. Never use dirty glassware.

39. Report damaged electrical equipment immediately. Look for things such as frayed cords, exposed wires, and loose connections. Do not use damaged electrical equipment.
40. If you do not understand how to use a piece of equipment, ask the instructor for help.
41. Do not immerse hot glassware in cold water; it may shatter.

HEATING SUBSTANCES

42. Exercise extreme caution when using a gas burner. Take care that hair, clothing and hands are a safe distance from the flame at all times. 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 teacher.
43. 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.
44. 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.
45. Heated metals and glass remain very hot for a long time. They should be set aside to cool and picked up with caution. Use tongs or heat-protective gloves if necessary.
46. Never look into a container that is being heated.
47. Do not place hot apparatus directly on the laboratory desk. Always use an insulating pad. Allow plenty of time for hot apparatus to cool before touching it.

In addition to these general guidelines, ALWAYS abide by any additional safety procedures provided by your instructor at the time of an activity. Each lab will start by going over specific safety instructions to ensure the safety of the students.

Please complete the syllabus and safety acknowledgement page with the appropriate signatures acknowledging receipt of this safety contract at: jmckeonasuprep.weebly.com

Thank you,
Mrs. Jerika McKeon