

Biology Safety Guidelines

General Safety Rules

1. Thoroughly read each laboratory procedure before entering the laboratory.
2. Your behavior and attitude in lab should be excellent! Both your safety and the safety of others depend on it.
3. Know how to locate and use all safety equipment in the laboratory, including the first aid kit, fume hood, fire blanket, fire extinguisher, safety shower, and eye wash. Also, be able to locate the nearest exit in case of an emergency.
4. Do not engage in dangerous laboratory behavior such as horseplay or running.
5. Always wear safety goggles, unless otherwise instructed.
6. Wear an apron or lab coat to protect your clothing.
7. Secure any loose-fitting clothing, and tie back long hair.
8. Never eat or drink in the laboratory.
9. Thoroughly wash your hands before and after each laboratory activity.
10. Keep your work area clear of any unnecessary items.
11. Thoroughly wash all laboratory instruments before and after each use.
12. Learn what to do in case of specific accidents, such as getting acid in your eyes or on your skin. (Rinse acids on your body with lots of water.)
13. Report all accidents, no matter how small, immediately to your instructor.
14. Read all directions for an experiment several times. Follow the directions exactly as they are written. If you are in doubt about any part of the experiment, ask your teacher for assistance.

Safety Rules for Lab Equipment & Activities

15. When heating substances in a test tube, always slant and aim the mouth of the test tube away from yourself and others.
16. Never reach across a flame.
17. Make sure you know how to light a Bunsen burner. (Your teacher will demonstrate the proper procedures for lighting a burner.) If the flame leaps out of a burner toward you, turn the gas off immediately. Do not touch the burner. It may be hot. Never leave a lighted burner unattended!
18. Never heat a liquid in a closed container. The expanding gases produced may blow the container apart, causing it to injure yourself or others.
19. Microscopes are very delicate, expensive instruments. They should always be carried with two (2) hands and handled gently. Microscopes should be stored with the lowest power objective in place, with the stage and objectives as close as possible. Cover the microscope with a dust cover and wrap the cord neatly around the base.
20. Do not handle an autoclave, incubator or aquarium without special instructions.
21. Be careful when operating electrical equipment.
 - a. Lab working surface, equipment and your hands must be dry.
 - b. Check all cords and plugs to be sure they are in good condition.
 - c. Look for exposed or broken wires and insulation in poor condition.
 - d. Never use an electrical socket without a cover plate.
 - e. Report any equipment that is not working properly to your teacher.
22. Never taste, touch, or smell any chemicals unless instructed.
23. Do not experiment with or mix any chemicals except as instructed during the prescribed laboratory activity. When combined, many chemicals in the laboratory can be explosive or otherwise dangerous.
24. Clearly label all containers with the names of the materials you use during the activity.
25. Never return unused chemicals to their original containers. Follow your instructor's directions for proper disposal and cleanup of all unused materials.

26. Take extreme care not to spill any material in the laboratory. If spills occur, ask your teacher immediately about the proper cleanup procedure. Never simply pour chemicals or other substances into the sink or trash container.
27. Be extra careful when working with acids or bases. Pour such chemicals over the sink, not over your lab table.
28. When diluting an acid, pour the acid into the water. Never pour water into the acid.
29. If any acids get on your skin or clothing, rinse them with water. Immediately notify your teacher of any spill.
30. If you are instructed to note the fumes in an experiment, gently wave your hand over the opening of a container and direct the fumes toward your nose. Do not inhale the fumes directly from the container.
31. Volatile chemicals should be heated only with a hot plate and water bath, never an open flame.
32. MSDS File – Material Safety Data Sheets on each chemical are kept in the science department. These sheets give additional safety and disposal information.
33. Never use unlabeled chemicals.
34. Use only those chemicals needed in the investigation. Keep all lids closed when a chemical is not being used. Notify your teacher whenever chemicals are spilled.
35. Never pick up broken glass with your hands. Sweep broken glass into a dustpan, and dispose of it in the broken glass container.
36. Keep in mind that hot glassware will not appear hot. Never pick up glassware without first checking to see if it is hot.
37. Use glassware that is not broken or chipped. If glassware breaks, notify your teacher and dispose of the glassware in the proper trash container.
38. When using a scalpel, razor blade or scissors, cut away from yourself and others.
39. Scalpels can make very serious cuts if not used properly. When working with a scalpel, hold it as you would a pencil when writing. Never attempt to replace a scalpel blade. Ask your teacher to replace it for you.
40. No experiments that will cause pain, discomfort, or harm to mammals, birds, reptiles, fishes, or amphibians should be done in the classroom or at home.
41. Animals should be handled only if necessary. If an animal is excited or frightened, pregnant, feeding, or with its young, special handling is required.
42. Clean your hands thoroughly after handling animals or a cage containing animals.
43. When working with bacteria, only nonpathogens are to be cultured. Care will be taken to avoid contamination of cultures. All cultures will be disposed of by the teacher.
44. Blood lancets must be used only once. The finger must be swabbed with alcohol before and after the puncture.
45. Slides, cover slips, and lancets used in blood labs must be disposed of in a fresh 10% bleach solution.
46. When an experiment is completed, clean your work area and make sure all of your materials are washed and dried. Return all equipment to its proper place.
47. Before leaving the laboratory, be certain that all Bunsen burners, gas outlets, and water faucets are turned off.
48. Sinks are used to dispose of liquid wastes only. At the end of lab, check sinks to make sure liquids have been rinsed down the drain. All solid wastes should be placed into the trash can.
49. Push your lab stools or chairs neatly under the lab table.
50. Do not remove anything from the classroom or lab room without permission.