Lab Equipment

1. Lab Bench – where you will conduct most of your experiments
   • Keep sources of ignition away from the gas outlet on your lab bench station, and make sure the gas outlet is turned off when not in use.

2. Fume Hood – an enclosed workspace that protects you from gaseous substances
   • Use the fume hood when handling volatile, odorous, or flammable chemicals.
   • Work at least six inches inside the fume hood.
   • Make sure it is turned on by holding the end of a strip of paper inside the hood. If the other end of the paper is pulled further into the hood, away from you, then the fume hood is functioning properly.

3. Waste Containers – special containers for disposing experiment by-products
   • Do not pour leftover substances into the sink or trash can.

4. Safety Shower – lab shower used to extinguish fires on people or rinse off large quantities of chemicals that have spilled onto someone’s skin or clothing
   • You can also use the drop-and-roll technique to extinguish a fire on yourself.

5. Eye Wash – an eye rinse used to clean chemicals out of your eye

6. Fire Blanket – blanket used to put out small fires in the lab and extinguish flames on someone performing the drop-and-roll technique
   • Don’t use the fire blanket on anyone who is standing up. This creates a “chimney effect,” directing the fire upward toward the person’s face.

7. Baking Soda – pour on acid spills to raise the pH to a neutral level

8. Citric Acid – pour on base spills to lower the pH to a neutral level

9. Keep the floor clear of clutter, spilled liquids, and broken glass.

10. Use the sink to rinse your equipment and wash your hands at the end of each lab.
Dressing for the Lab

1. Avoid loose, baggy clothing or accessories. These items could more easily catch on fire, fall into chemicals, or knock over equipment.
2. Shoulder-length hair should be tied back.
3. Wear long pants, long sleeves, and closed-toed shoes. These items will protect you against chemical spills and splashes.
4. Avoid synthetic fabrics, such as rayon and polyester, which burn faster than natural fabrics like cotton or wool.
5. Wear the safety glasses provided for you. They will protect your eyes from splattering chemicals and prevent you from transferring chemicals into them from your hands.

Safe Lab Practices

1. Always wear safety glasses when working in the lab.
2. Do not eat or drink in the laboratory. In fact, food and drinks should not even be brought into the lab. This includes chewing gum and biting on pens, pencils, and fingernails.
3. Work in a fume hood when handling volatile liquids, odorous compounds, or flammable materials.
4. Use spatulas and scoopulas (pointed concave spoons) to handle solids.
5. Use a beaker as an intermediate container when pouring liquids from a large container into a small container.
6. Point containers away from yourself and others when heating them or when mixing chemicals.
7. Never reach over flames, bottles, or hot equipment.
8. Read labels twice before taking anything from a bottle.
9. Keep lighted Bunsen burners away from flammable liquids and never leave them unattended.
10. Always wash your hands when you leave the lab. This will prevent you from transferring chemicals or other harmful substances from your hands to your mouth and eyes. For the same reason, avoid touching your face in the lab and never apply make-up while in the lab.

For more information about the handling procedures and toxicities of specific substances, refer to the Manufacturer's Safety Data Sheet (MSDS).
- Available in the Natural Sciences Dept. Office (Room 506, 23rd St. Building)
- Available online; search using the keywords "MSDS" and the name of substance
You can also consult the Chemical Hygiene Plan on the Natural Sciences Dept. website: www.baruch.cuny.edu/wsas/departments/natural_science

NOTE: The Baruch College Health Center is located at 138 E. 26th St.

www.baruch.cuny.edu/tutorials