Laboratory Safety Training

Module 1, Lesson 3

Lab Safety Equipment

Know the locations and operating procedures of all safety equipment including:



First Aid Kit

Eyewash Station





Safety Shower



Fire Extinguishers



Fire Blanket





Fire Alarms & Exits

Lab Apparel



Personal Protective Equipment will be worn at all times.
This includes:

- Gloves
- Safety glasses/Safety goggles (if you do not wear glasses)
- Lab coats

Remove personal protective equipment before leaving the laboratory.







Dress properly during a laboratory activity.

- Close-toed shoes are required.
- Long hair must be tied back.
- Dangling jewelry and loose or baggy clothing must be secured.



General Laboratory Behavior



- Do not eat food, drink beverages, or apply cosmetics in the laboratory.
- Do not use laboratory glassware as containers for food or beverages.
- 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 experiments.
- Observe good housekeeping practices. Work areas are to be kept clean and tidy at all times.
- Be alert and proceed with caution at all times in the laboratory. Notify the instructor immediately of any unsafe conditions you observe.

Preparation for Lab Work



- Be prepared for your work in the laboratory. Read all procedures thoroughly before entering the laboratory.
- Disinfect your work areas with 70% Ethanol prior to starting work.
- Disinfect your work areas with 70% Ethanol when you have finished work.
- Carefully follow all instructions, both written and oral.

Proper Handling of Chemicals



- 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.
- Check the label on chemical bottles twice before removing any of the contents. Take only as much chemical as you need.
- Never return unused chemicals to their original containers.
- Never use mouth suction to fill a pipette. Use a rubber bulb or pipette pump.
- Never remove chemicals or other materials from the laboratory area.

Waste Disposal

- Dispose of all laboratory waste properly.
- Sinks are to be used only for water and those solutions designated for sink disposal by the instructor.
- Solid waste should be disposed of in the proper type of container. Which container you should use depends on the type of solid waste. Your instructor will inform you of where to dispose of each type of solid waste.
- Sharps should be disposed of in designated sharps waste containers. Sharps include: needles and razor blades.
- Broken glass is disposed of in the broken glass container (not the sharps container).
- Biohazard waste should be disposed of in the biohazard waste container. Bacterial waste (both liquid and solid) as well as lab implements that have had contact with bacteria are considered biohazard waste.

  Solid bacterial waste should be disposed of in a solid biohazard waste container.

  Liquid bacterial waste should be treated with 10% bleach. After 10 min. in 10% bleach it can be disposed of down the sink.
- Check the label of all waste containers twice before adding your laboratory waste to the container.

Proper Use of Lab Equipment



- Use the fume hood when working with volatile substances or poisonous vapors.
- When removing an 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.
- Report damaged electrical equipment to your instructor immediately. Look for things such as frayed cords, exposed wires, and loose connections.
- Do not use damaged electrical equipment.
- Do not use any lab equipment without permission and proper instruction.

Proper Use of Lab Equipment



- 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.
- 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.
- Do not unplug critical equipment (refrigerators, freezers).
- When closing refrigerators or freezers make sure they are completely closed

Accidents & Spills Clean-Up

- Notify the instructor before attempting to clean up any type of spill or breakage.
- Never handle broken glass with your bare hands.
- Use a brush and dustpan to clean up broken glass.
- Place broken or waste glassware in the designated glass disposal container.
- Clean up small spills of non-hazardous using supplies appropriate to the type of reagent.
- Contact the appropriate help for clean up of large spills or spills of hazardous reagents.
- The instructor will clean up all spills.



