Housekeeping Is a Safety Issue

Introduction

Maintaining a clean and well-organized laboratory with easy access to all safety equipment and exits in case of emergency is an important component of a safe lab environment.
To achieve a neat,clean, and organized lab, both the teacher and students must actively work together and accept mutual responsibility.

Teacher's Roles and Responsibilities

Good housekeeping starts with the school and the instructor. The school has a legal obligation to provide a safe environment for the students to learn. The school must provide adequate space and appropriate safety equipment. The instructor must keep the laboratory and classroom neat and clean. Instructors must also ensure that the safety equipment is accessible and working properly.

What are the most important features of good housekeeping in a laboratory? One very important aspect is neatness. Equipment, materials, chemicals, and supplies must always be in their proper place. Nonessential papers, equipment, and supplies should not clutter the laboratory. Closely related to neatness is cleanliness. Laboratories must be kept clean at all times. Spills require immediate clean-up. Teachers have the following housekeeping responsibilities.

1. The laboratory should be kept clean, organized, and free from clutter.
2. Fire extinguishers, eye washes, safety showers, and other safety equipment must never be blocked or obstructed. All safety equipment must be clearly labeled with placards and easily accessible.
3. Aisles and exits must be kept clear of furniture, boxes, and other obstacles. Chairs should be under the desks when not in use. All occupants of a laboratory must be able to exit the lab quickly in an emergency.
4. Instruct students to only bring their laboratory instructions, worksheets, and calculators to their work area. Other materials (books, purses, backpacks, etc.) should be left in the classroom seating area or in their lockers. In an emergency, items on the floor could block the exit or access to safety equipment.
5. At the completion of each experiment, equipment should be cleaned and properly stored. Dirty equipment and glassware should not be allowed to pile up on a desktop, around or in the sink, or in a hood.
6. Return all chemicals to the storeroom and dispose of all waste materials immediately following all laboratory activities. If waste materials must be stored, label the bottles and place them in the storeroom until disposal.
7. Clean up all spills immediately, no matter how harmless the material spilled (including water).
8. Areas around balances and sinks are particularly likely to become messy and eventually dangerous as repeated spills generate unknown mixtures.
9. Keep a dustpan and broom available to sweep up broken glass or spilled chemicals.
10. Do not allow electrical cords to trail across aisles or lab benches. All cords should be securely taped to the floor to avoid trip hazards.
11. Do not use the fume hood as a storage area for chemicals, glassware, or equipment.
12. Laboratories should not be storage areas for old textbooks, catalogs, papers, journals, or newspapers. Determine what is needed in the laboratory and store everything else in an office, the library, or a classroom.
13. Have labeled containers for broken glass.
14. Have cleaning materials available to wash hands, counter tops, and glassware. Keep a large supply of paper towels on hand.

Students' Roles and Responsibilities

Students should expect to find their work areas clean and organized when they enter the laboratory and should be expected to leave all work areas in the same clean condition for the next class. Students have the following responsibilities:

1. Students are responsible for keeping their work area clean and uncluttered.

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2. If the workspace becomes messy, clean up as quickly as possible. Use the waiting time between procedural steps to clean equipment, glassware, and lab benches.
3. Work spaces and storage areas should be kept clear of broken glassware, leftover chemicals, and excess paper.
4. If a spill occurs, immediately notify the instructor and then clean it up as directed by the instructor.
5. Return all chemicals to their normal place and do not store chemicals in or around desks or lab benches. Also, never remove chemicals from the laboratory.
6. Never store any materials, especially chemicals, on the floor, even temporarily.
7. Keep balances, shared equipment, sinks, and the areas around them clean.
8. Avoid unnecessary hazards by keeping drawers and cabinets closed while working.
9. Keep aisles free of obstructions such as chairs, backpacks, books, and garbage cans.
10. Avoid slipping hazards by keeping the floor clear of ice, stoppers, small items, and spilled liquids.
11. Clean glassware at the laboratory sink. Place it on a drying rack to dry. If instructed, put glassware away after drying.
12. Avoid accumulating too many articles in the cleanup area or around the sinks. Usually the work space around a sink is limited and piling up dirty or clean glassware leads to breakage.
13. Wash hands with soap and water before leaving the laboratory.

Summary

Keeping a clean, neat, and organized laboratory is often overlooked as a means of improving safety in a laboratory. The cleanliness and neatness of a lab is directly related to the emphasis the instructor places on good housekeeping. Keep your areas clean and then involve students in keeping the laboratory clean and organized. Provide enough time and instruction for students to clean up after all lab activities. A clean, neat, and well-organized lab will create a more productive and professional learning environment.