Teacher and Student Responsibilities in Safety

Introduction

Before the school year starts, the science department should review teacher and student responsibilities for laboratory safety. Having a clear and consistent department policy on laboratory safety will improve the safety of the science department and greatly reduce the liability of all science staff should an accident occur. This brief article reviews some of the teacher and student responsibilities for safety in the science laboratory.

Teacher Responsibility

The science laboratory environment presents unique types of dangers that teachers must guard against. The science teacher has a duty to anticipate foreseeable dangers and take precautions to protect students from possible harm. This duty extends primarily to five areas of responsibility.

1. **Providing adequate supervision over student activities.** Teachers must be physically present at all times to supervise students wherever chemicals or laboratory equipment are being used. Therefore, do not leave your classroom during any instructional period.
2. **Giving students adequate instructions to perform the tasks required of them.** It is not sufficient to merely give the student the directions in the form of a handout or provide instruction in a textbook. Rather, the duty of instruction requires personal instruction, sufficient warnings and student understanding. Written, documented instructions go a long way to improving safety and insulating teachers from potential liability. The most powerful defense in science classroom accident lawsuits has been evidence of providing "proper instruction" of the dangers inherent in the activity.
3. **Providing clear safety rules, enforcing the rules on a consistent basis and warning students of possible dangers in performing the activity.** The foundation of any school science safety program for students is the use of a student safety contract. The contract should clearly spell out the rules of the science laboratory that students must always follow. The rules listed on the safety contract must be discussed and reviewed at every possible opportunity. Student lab reports must document key safety rules they are expected to follow when performing the lab. Tests and quizzes should contain questions regarding safety. Safety must be reinforced on a daily basis. It is the teacher's responsibility to specifically identify, warn and instruct students of potential hazards that might occur within the laboratory and supervise students by monitoring the proper use of laboratory technique and safety equipment by the students.
4. **Maintaining all laboratory equipment in proper working order.** Inspect all equipment and glassware before use. All equipment must be in good working order before it is used.
5. **Providing safe laboratory facilities for the performance of laboratory tasks.** It is the teacher's duty to inspect and maintain in proper working order all safety equipment to be used in the laboratory. It is also the teacher's duty to provide a safe facility for the performance of laboratory tasks. Many times the teacher will have to inform the administration that safety problems exist and instruction cannot occur until adequate safety equipment and facilities are available.

Student Responsibility

Students are required to follow all rules, guidelines, and instruction provided by the teacher and school district. Students are expected to read and understand the rules of the safety contract. Once the teacher has reviewed the rules of the student safety contract, the students will then sign the safety contract signifying that they have been instructed and understand the requirements for safety in the school science laboratory. Their parent should also sign the safety contract so they are aware of the rules their child will have to follow and the potential consequences if they are not followed.

The students must wear all required personal protection equipment such as chemical splash goggles, gloves, and aprons as instructed by the teacher. They must also inspect all personal protection equipment prior to use.

Students must come to the laboratory prepared for the laboratory activity. Safety precautions and the laboratory procedure should be understood before they begin the laboratory activity. One of the leading causes of laboratory accidents is students' failure to carefully read and understand laboratory activity instructions.

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Acknowledgment and Additional Information

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