Sense-ational Science
Pre-Lab Activity 2 – Teacher Guide
Grades 2-3

Overview

This activity focuses on introducing students to lab safety. Learning how to act appropriately in a science laboratory is an important part of conducting science experiments. This classroom activity will introduce the general safety rules (guidelines) for working in a science lab setting.

Materials

- Equipment to view Power Point Presentations (computer, projector, etc.)
- Internet access to retrieve the Power Point Presentations
    - Lab Safety Rules for 2-3
    - Lab Safety Assessment for 2-3
- Lab Safety Rules handout for 2-3 (1 copy)
- Lab Safety Scenarios handout (1 copy) optional
- Area signs for Lab Safety

Getting Ready

- Print the Lab Safety Rules and the Safety Scenarios handouts
- Locate two Power Point Presentations (located on our website)

Procedure

The students need to understand that rules are important to keep everyone safe. Review some of your classroom rules as an example (i.e. we do not run inside the classroom because someone could trip/fall and get hurt).

The rules for working in a science lab are there to keep the scientists safe while they are conducting their experiments. EVERYONE who works in a lab is expected to follow these rules/guidelines.

Continue the discussion by asking the following questions:

- What are some things a scientist does in a lab?
- Do you know any of the special rules the scientist must follow when working in a lab?
- Does a scientist wear special clothes or use special equipment when working in a lab?

Explain to the students that when a scientist works in a lab, safety is very important not only for him/her, but for the safety of the other people working in the lab. Use the Lab Safety Rules Power Point for 2-3 to help you present the safety rules to your students. Read the rules, one at a time and show the picture in the power point that represents that guideline. Make sure to direct the

students' attention to the part of the picture that applies to the rule. Engage your students in a conversation about the rule, why they think that rule is important, and real life examples of the rule.

Example**: Rule #1 – Wear safety goggles when working in a lab to protect your eyes.** Show the first picture of a little boy wearing safety goggles. Ask – What is going on in this picture? What is the boy wearing? Why is it important to protect your eyes? (Goggles - Something could get in your eye and affect your vision)

Continue this procedure through all of the ten safety rules.

** If you would like to challenge your students, feel free to share the picture with them and have them predict what the safety rule will be. **

Explanation

Lab safety rules are important to keep everyone working in the lab setting safe.

Rule #1: Goggles keep your eyes protected from any substance that might get into your eyes that could harm your eye and impair your vision.

Rule #2: Wearing a lab coat or apron protects your clothing from spills that could stain your clothing. Wearing gloves protects your hands from burns or stains.

Rule #3: You don't want to inhale or taste any substance you are working with in the lab because it could harm your body. You shouldn't touch your face while working in the lab because something could be on your hands and then it could harm your face resulting in a burn or stain.

Rule #4: You want long hair tied back. You should not wear dangling jewelry or loose clothing because any of these could catch fire if you were working with an open flame. They could also get caught on pieces of equipment causing you bodily harm or the equipment to be broken.

Rule #5: You should NEVER taste anything in the lab, even if you know what it is. There could have been other things added to the substance before you started working with that item. Also if the substance if unknown, it could cause you to become sick.

Rule #6: You should know where the safety equipment is located in the lab in case there is an accident and someone needs first aid care.

Rule #7: You should never play with the lab equipment because the majority of lab equipment is glass and it will break. Also because you may not know what is inside the beaker, you will not know what harm it can do to you or the other lab equipment.

Rule #8: If anything gets spilled or broken the teacher needs to know immediately so he/she can make sure the students are protected and can get the area cleaned up.

Rule #9: Eating and drinking in the lab is NEVER allowed. The lab table surface could have things on it that can contaminate your food or drink. There could also be particles in the air that could contaminate your food or drink.

Rule #10: Leaving your work area clean is important so someone else does not have to clean up after you. It is also important to wash your hands with soap and water when you are finished so you leave the lab with clean hands.

The assessment piece of this lesson plan can be completed at this point in the lesson (assessment of the individual lesson plan) or if you wish you can save it until the conclusion of the actual e-Lab (comprehensive assessment on the entire unit of study). Please note that these safety rules will be an area of focus during the videoconference part of the e-Lab.

Assessment

The Lab Safety Assessment Power Point for 2-3 will aid you in reviewing and assessing the student's knowledge of the lab safety rules. Each slide of the Lab Safety Assessment Power Point will contain two pictures (**A and B**) one picture will show the rule being followed and one will show the rule being broken. Designate areas in the classroom for **Area A** and **Area B**. Place the signs (**Area A and Area B**) in the appropriate location. When each slide is displayed on the screen have your students get out of their seats and go to Area A or Area B to demonstrate which picture they believe shows the rule being followed.

Another alternative assessment for grades 2-3 can include using the Lab Safety Scenarios. You can read the scenarios aloud to the students and let them discuss whether the student in the scenario is following the lab safety rules or not. Have them explain why they are or why they are not. This can be done as a class discussion, process charts around the room, a group activity, or anyway you wish to use the scenarios.