

Lab Safety

Science Lesson for Grades 5-8

Goals:

Students will learn how to conduct experiments and use materials safely in the science lab.

Objectives:

1. Each student will demonstrate an understanding of general lab safety through reading and watching interactive online content and completing an online quiz.
2. Students will learn how to safely operate a Bunsen burner.
3. Students will be able to use a test tube safely.
4. Students will be able to demonstrate correct lab safety when conducting an experiment.

Preparation & Materials:

- Teachers should preview all Websites and activities.
- Teachers should be familiar with the QuickMind paths throughout and at the end of the lesson plan.
- Bunsen Burner
- Lab Coat
- Protective eyewear such as goggles
- Rubber gloves
- Tongs
- Beaker
- Fire extinguisher
- Eye wash
- First Aid Kit

Lesson:

Introduction

Check for prior knowledge and understanding by asking the class:

- Before we can do experiments in the lab, we need to think about what kinds of behaviors and tools we will need to have a safe laboratory environment.

(Make a 2-column list of the behaviors and tools students suggest.)

- Show students lab equipment listed above and ask them why they think we have this equipment, how does this equipment help us?

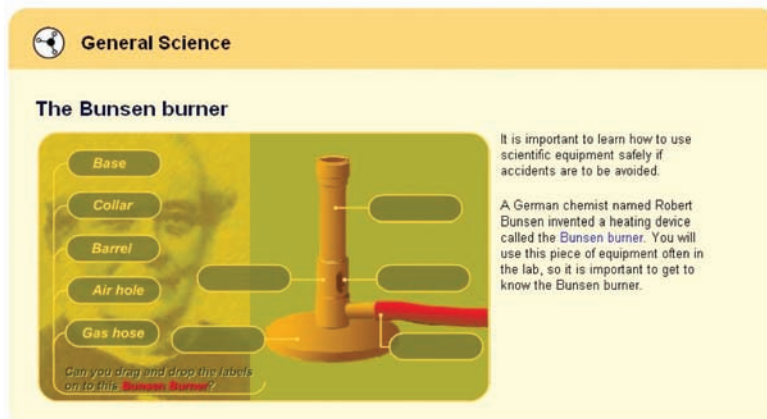
Main Activity

- Let's see if some of your ideas match those in our Interact Science content.
- Either as whole-class instruction or an individual computer lab assignment, have students view the following Interact Science courses:

From the teacher & student interface click on:

Curriculum Activities>Science>Interact Science Courses>General Science

- o Safety in the Lab
- o Bunsen Burner
- o Using a Test Tube Safely
- o Safety Rules



General Science

The Bunsen burner

It is important to learn how to use scientific equipment safely if accidents are to be avoided.

A German chemist named Robert Bunsen invented a heating device called the Bunsen burner. You will use this piece of equipment often in the lab, so it is important to get to know the Bunsen burner.

Can you drag and drop the labels onto this Bunsen burner?

Follow-Up Activities:

Now that your students have learned about lab safety and proper use of scientific equipment, as a class, have students review the list of behaviors and tools they made. What needs to be added that they didn't think of?

Assessment/Evaluation

The true assessment of lab safety skills should take place during the execution of a science experiment. Assess your student's ability to demonstrate correct lab safety procedures using the attached checklist. If remediation is necessary, ask students to review related Interact Science Courses.

QuickMind Path Sheet:

1. Curriculum Activities>Science>Interact Science Courses>General Science
 - o Safety in the Lab
 - o Bunsen Burner
 - o Using a Test Tube Safely
 - o Safety Rules

Lab Safety Checklist

Name: _____ Experiment: _____

During the experiment, it was observed:

The student...

- wore protective eyewear at all times.
- wore correct footwear (no sandals).
- wore hair back, and/or clothing was free of hanging cords or sashes.
- wore a laboratory apron or coat before beginning the experiment.
- began the experiment with a surface cleared of clutter or debris.
- used proper techniques when operating a Bunsen Burner. (if applicable)
- wore safety gloves when handling hot or toxic substances.
- promptly cleaned up and disposed of any spills or debris were properly.
- demonstrated care when moving substances from one container to another.
- followed lab procedures precisely as directed by instructor.
- demonstrated effective communication with lab partner.
- thoroughly cleaned the lab area after completing experiment.
- cleaned and returned equipment to the proper place following the experiment.

Teacher Comments

Teacher Signature: _____ Date: _____