Get your students excited about science! In this lesson, you will read a book to your students about performing an experiment and being a scientist. Then, your students will perform their own experiments.

**Learning Objectives**

Students will be able to describe and discuss their experiments and compare and contrast their activities to the activity in the book.

**Materials and Preparation**

- *If You Take a Mouse to School* by Laura Numeroff
- *Scientists* by Pamela Chanko and Samantha Berger
- Large clear plastic cups (1 per student)
- Small clear plastic cups (1 per student)
- Baking soda
- Small spoons (1 per student)
- Vinegar
- Different colored food coloring
- Trays (1 per student)
- Clear protective goggles (1 per student)
- Whiteboard
- Paper
- Crayons

**Key Terms**

- scientist
- experiment
- prediction

**Introduction (20 minutes)**

- Show your students the goggles, explaining that they protect eyes.
- Explain that a **scientist** is someone who studies something, makes guesses about it, and then does an experiment to see if her guess is correct.
- Tell your students that an **experiment** is a project where people can try something to see what happens.
- Read *If You Take a Mouse to School*.
- When you get to the page where the mouse is doing the experiment, point out the protective goggles.
- Ask the students why they think he is wearing the protective goggles. Explain that the mouse’s experiment is very messy, and he needs to protect his eyes.
- Read the book *Scientists*. Explain that there are many different kinds of scientists who study very different topics.

**Explicit Instruction/Teacher Modeling (20 minutes)**

- Tell the students that today, they will pretend to be a scientist and perform an experiment just like the mouse in the book.
- Hand out protective goggles for each student, and have them put them on.
- Ask your students to identify the two colors that mix together to become purple.
- Tell your students that you will try an experiment in which you mix colors in vinegar.
- Start the experiment by mixing the red and blue food coloring into some vinegar.
• Mix other colors together after asking the students for their thoughts on what colors will make green and orange.
• Hand out a tray to each student for their experiments.
• Put some of the colored vinegar in a large clear cup, and give one to each student.
• Hand out a small clear cup with baking soda in it and a spoon to each student.
• Tell the students that when they make a guess, it is called a prediction.
• Ask your students to make a prediction about what will happen when they put some baking soda into the colored mixtures.

Guided Practice/Interactive Modeling (15 minutes)

• Have the students use the spoon to sprinkle a small amount of baking soda into the purple vinegar.
• Talk about the sound, smell, color, and look of the experiment.
• Ask the students to identify similarities and differences between the mouse's experiment and their experiments.

Independent Working Time (15 minutes)

• Hand out paper and crayons.
• Ask the students to draw a picture of their experiments.
• Instruct your students to tell you about their pictures.
• Write key comments on their pictures.

Differentiation

• **Enrichment:** Have your students come up with an additional experiment with the existing materials. With your permission and guidance, instruct them to carry out the experiment.
• **Support:** Direct your students to come up with ideas of what scientists might study. Have them identify scientists in real life.

Related Books and/or Media

Assessment (5 minutes)

• Observe the students as they perform their experiments and as they draw their pictures.
• When they tell you about their pictures, make sure they use key words.

Review and Closing (5 minutes)

• Ask the students to come up with other experiments.
• Based on their suggestions, come up with an idea that you can try on another day and become scientists again!