

Scientist



Cluster: Science, Technology, Engineering, and Math

Content Area Integration: Art, Social Studies, Science, ELL

Background Information:

There are many kinds of scientists, and they all do different things. Some like to learn about living organisms. They are called biologists. Others like to study rocks. We call them geologists. People who study animals are sometimes called zoologists. Scientists are very curious people who like to solve problems. They solve these problems by doing science projects called experiments. Scientists use the scientific method to ensure their conclusions are valid and accurate.

Objective:

Students will gain an understanding of the work of a scientist, and how a scientist contributes to a community.

Hands-on Activity: What Do Scientists Do?

Begin by telling the students to give you a thumbs-up, or thumbs-down, for the following questions:

- How many of you like animals and would like to learn more about them?
- How many of you like flowers and trees and would like to learn more about them?
- How many of you know about dinosaurs and would like to learn more about them?
- How many of you know about magnets and would like to learn more about them?
- How many of you would like to know more about the moon, the stars, black holes and comets?
- How many of you would like to learn more about the earth, rocks, and rivers?

Tell the students if they gave a thumbs-up to any of these questions, they may be interested in being a scientist someday. Explain scientists are special workers in a community who help improve our understanding of everything around us. Explain further that scientists collect evidence by doing experiments. Tell the students that you will give them an example of the steps scientists go through when they conduct experiments and make discoveries:

- **Step 1:** Scientists make an observation, or see something. For example, a scientist might see that ice is melting in his/her water.
- **Step 2:** After the observation, scientists come up with a question. The question may be, does ice melt the same in all liquids?
- **Step 3:** After scientists think of their question, they predict what will happen. The predication might be, ice melts faster in water than juice or pop.
- **Step 4:** After scientists predict what will happen, they test what they predicted by doing an experiment. A scientist would measure how fast ice melts in water, juice, and pop.
- **Step 5:** Scientists write down all the information they learned from their experiment to see if their prediction was correct.
- **Step 6:** Scientists share what they observed, what they predicted, their experiment, the results, and a scientific conclusion.

Summarize by telling the students that scientists' work requires that they observe, measure, and communicate. This is the scientific method that all scientists use. End the discussion by explaining that the students will now have time to practice using the scientific method.

Give the students a piece of paper divided into quarters labeled: 1. Make Observation, 2. Come Up with Question Based on Observation, 3. Predict What Will Happen, 4. Describe Experiment. Lead the students in completion of the four steps of the scientific method. When the worksheet is completed, congratulate the class for thinking like scientists. Conclude by showing the picture of a scientist from the **I Can Be ...Series**.

Materials:

Paper folded and labeled for each student

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Scientist Continued



Journal:

Students will record whether they would like this job or not. Students should be encouraged to expand on their choice by drawing a picture and/or writing an explanation.

Independent Learning Center Activity:

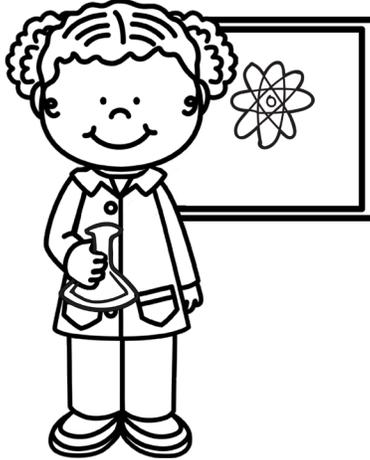
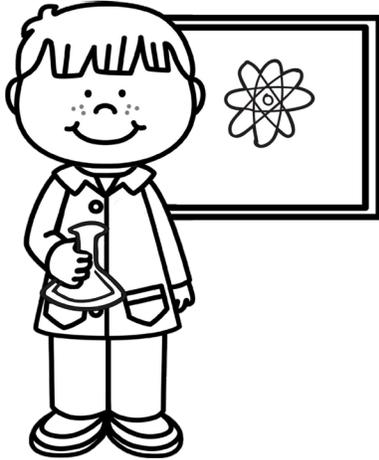
- **Scientific Method:** Provide students with additional paper from the whole class activity. Ask them to make their own observations and complete the next steps of the scientific method.
- **I Want to Be a Scientist:** Have students explain why they would like to be a scientist.
- **Scientists at Work:** Have students create a poster titled What is a Scientist? Ask them to use all the information learned in the class activity to complete their poster.

Workplace Connection:

Visit a high school science lab and let the teacher answer questions, or do simple experiments with the class.

Evaluation/Comments:

Scientist



What I like about being a scientist is

What I don't like about being a scientist is

Who do I know in my community who is a scientist?

Why is it important to have a scientist in your community?
