

Name: _____

Date: _____

The Scientific Method

Complete the five steps. Record your information in the spaces provided.

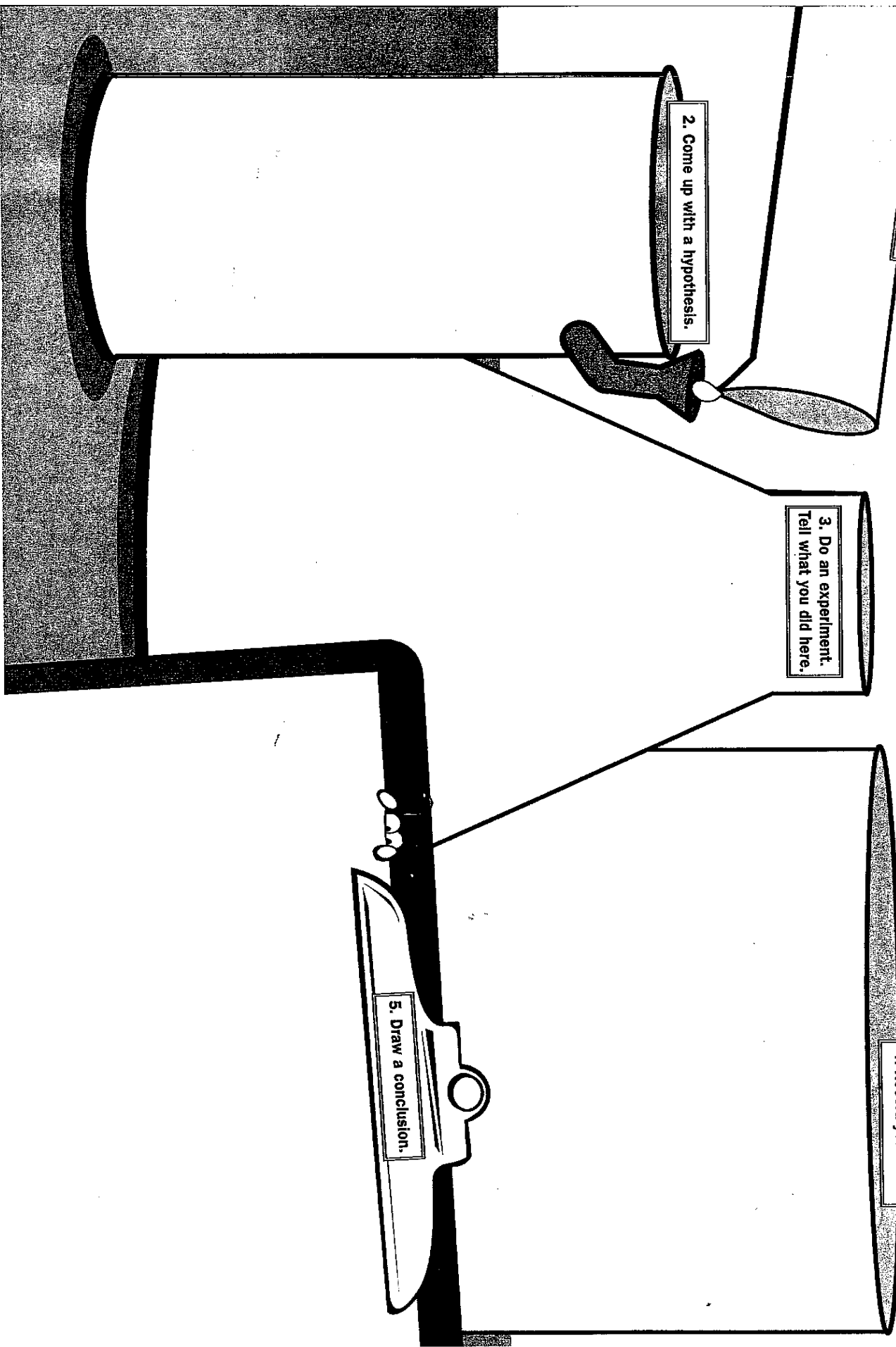
1. Ask a question.

2. Come up with a hypothesis.

3. Do an experiment.
Tell what you did here.

4. Record your data.

5. Draw a conclusion.



Skills

Students will:

- ✦ identify steps of the scientific method
- ✦ record from experimentation
- ✦ draw conclusions based on evidence

Purpose

The graphic organizer guides students through the five steps of the scientific method. It gives them a structure for exploring scientific questions and helps them to present the results of experiments, in addition to their reasons for drawing particular conclusions, to others.

How to Use the Organizer

Explain to students that the scientific method is a set of general rules that scientists have used for hundreds of years. By presenting information in a systematic way, scientists can follow and replicate another scientist's process. Introduce this organizer to the class by raising a question about the topic you are studying. Have students record the question in the first beaker. Ask students to predict the answer to the question and write their prediction in the second beaker. Explain that the prediction is called a *hypothesis*. Next, guide students to record the steps of an experiment. You might want to suggest that they number the steps. Then encourage students to conduct the experiment and record the data in the fourth beaker. Finally, ask them to draw conclusions by interpreting the data they collected. Are they surprised by the conclusion?

Examples

Primary Grades

A second-grade teacher completed the first and third beaker before photocopying this graphic organizer for her students. She placed the organizer in the science learning center, where students recorded their hypotheses, data, and conclusions while conducting the experiment on the weight of liquids.

Intermediate Grades

A sixth-grade student chose to conduct an experiment on mold and completed this organizer at home for extra credit in science. Her teacher keeps this option open to students throughout the school year.

Name: Megan Date: 2-2

The Scientific Method
Complete the five steps. Record your information in the spaces provided.

1. Ask a question.
Which is heavier: water, corn syrup, or oil?

2. Draw up with a hypothesis.
Oil is the heaviest because it's the thickest.

3. Do an experiment. List what you did here.
① Put water in a glass.
② Add oil.
③ Add corn syrup.
④ Observe what happens.

4. Record your data.
The corn syrup sank to the bottom, the water was in the middle, the oil floated to the top.

5. Draw a conclusion.
The corn syrup is heaviest, the oil is lightest, the water weighs something in between.

Name: Samantha Date: 4/01

The Scientific Method
Complete the five steps. Record your information in the spaces provided.

1. Ask a question.
Can mold grow without light?

2. Draw up with a hypothesis.
Yes because mold has no chlorophyll.

3. Do an experiment. List what you did here.
I sprinkled water on a slice of bread. Then I placed the bread in a plastic bag and put it in a dark cupboard for six days.

4. Record your data.
On the second day, little threads began to appear (like fuzzy cotton). By the sixth day the bread was covered in mold.

5. Draw a conclusion.
Although it's a plant, mold does not need light to grow.

