

# 1

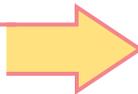
## Into the Field



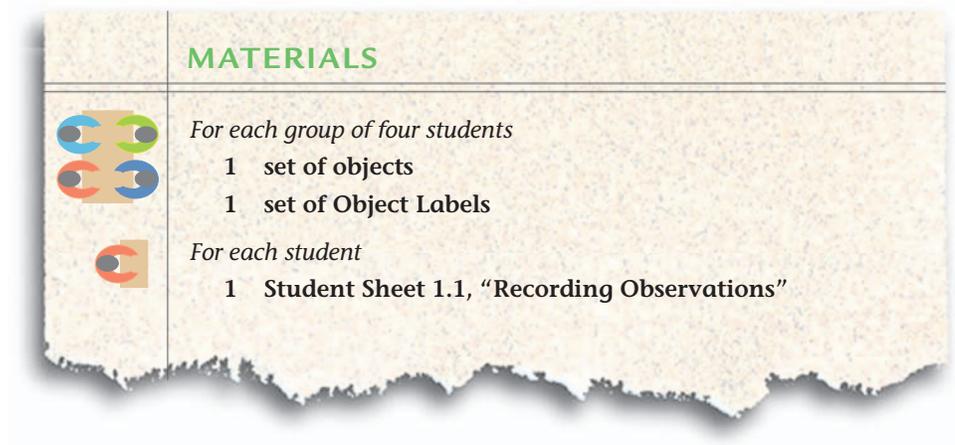
**E**very day, people are surrounded by many objects and events. Scientists often spend time observing objects and events carefully. In this activity, you will observe objects with a scientist's eye.



### CHALLENGE



How completely can you describe a group of objects?



## PROCEDURE

1. Study the set of objects for one minute.
2. After the objects have been removed, write down the names of as many objects as you can remember in Row A of Student Sheet 1.1, "Recording Observations." Describe them as completely as you can.
3. Discuss your list with the rest of your group. In Row B of Student Sheet 1.1, create a single list that names (or describes) each object your group observed.
4. Have one person from your group get a set of Object Labels from your teacher.
5. With your group, place each label next to the correct object. Compare the labeled objects with your group's observations in Row B.
6. In the last column of Student Sheet 1.1, record the number of objects that you and your group completely described.
 

**Hint:** If someone else can identify an object based on your description, it is completely described.
7. In Row C, add the names of any objects that your group did not identify.
8. In Row C, under "Total Number of Objects," record the number of objects that your group missed.

## ANALYSIS



1. Read your object descriptions again. Select one that you think could be more complete and rewrite it, giving a more complete description of the object.



2. Modern scientists often work together in groups. What are the possible benefits of this?



3. When is it important for scientists to describe objects completely?

4. You are an explorer who has discovered a mountain, which is then named after you. You tell a friend how to get to your mountain. Should you tell your friend the name of the mountain, describe how it looks, or both? Explain.

5. Many of the objects you observed are used for measurement. The system of measurement most commonly used in the United States is known as the English system. In most other countries, the metric system is more commonly used.

Look at the table below.

- a. What units are familiar to you?
- b. Which of the units below were found on the objects you observed in this activity?
- c. Choose three of the units listed below and give an example of something commonly measured with each one.

Units of Measurement		
	Common English Units	Common Metric Units
<b>Length</b>	inches, feet, yards, miles	centimeters, meters, kilometers
<b>Mass</b>	ounces, pounds	grams, kilograms
<b>Volume</b>	cups, quarts, gallons	milliliters, liters

## KEY TO ANALYSIS ICONS

 = Answer the question by yourself.

 = Discuss with your partner.

 = Discuss with your group.

 = Discuss the question in class.