

**Goal** • Increase your understanding of scientific observations and inferences.

## Introduction

We make observations every day of our lives. These observations often lead us to draw inferences. For example, a television commercial could result in the following observation and inference:

**Observation** As a new car travels, it lifts into the air and flies.

**Inference** If we buy that car, we will be able to make it fly.

## What to Do

- Consider what you just learned about observations and inferences, and answer the questions below.

## Questions

1. Briefly describe two different commercials you have seen. For each commercial, state an observation and an inference that can be drawn from it. Say whether you think the inference is valid or accurate.

	Commercial #1	Commercial #2
<b>Description</b>		
<b>Observation</b>		
<b>Inference</b>		

	Commercial #1	Commercial #2
Validity		

2. a. Define “observation” as it is used in science.

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b. List three scientific observations about the room you are sitting in:

Observation #1: \_\_\_\_\_

Observation #2: \_\_\_\_\_

Observation #3: \_\_\_\_\_

3. a. Define “inference” as it is used in science.

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b. List three scientific inferences about the room you are sitting in:

Inference #1: \_\_\_\_\_

Inference #2: \_\_\_\_\_

Inference #3: \_\_\_\_\_

4. Identify whether each of the following statements is an observation or an inference. Write the correct word in the space provided.

**Statement**

**Observation or Inference?**

a. She is a smart girl.

\_\_\_\_\_

b. The car is red and has a sunroof.

\_\_\_\_\_

c. She has strong arms, so she must exercise.

\_\_\_\_\_

d. He burned the toast; therefore, he must be a bad cook.

\_\_\_\_\_

e. Her shoes are leather; she must be rich.

\_\_\_\_\_

f. He ran the 100 m dash in 24 s.

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5. Write a general statement about observations and a general statement about inferences.

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6. a. Compare and contrast scientific observation and inference.

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b. Share your findings with a classmate and discuss any differences. Below, explain what additions or changes you want to make to your answer in part a. after your discussion.

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