DATE: NAME: CLASS:

GENERAL SCIENCE TOOLKIT

Making Observations and Inferences

BLM G-4

Goal • Increase your understanding of scientific observations and inferences.

Introduction

We make observations and inferences every day of our lives, as well as in science class. We make many observations when we watch television, listen to the radio, or surf the Internet. These observations often lead us to draw inferences. For example, a television commercial could result in the following observation and inference:

Observation As a particular car model 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 then 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
Description		
Observation		
Inference		

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	Commercial #1	Commercial #2
Validity		

2. a. Define "observation" as it is used in science.

_____

_____

_____

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.

_____

_____

_____

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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Making Observations and Inferences

5. What general statements can you make about the nature of observations and inferences?

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

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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