

**Chapter 1 The Science of Biology**

**Section 1–1 What Is Science? (pages 3–7)**

*This section explains what the goal of science is and describes a scientific view of the world.*

**What Science Is and Is Not (page 3)**

1. What is the goal of science? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
2. What is science? \_\_\_\_\_  
 \_\_\_\_\_

**Thinking Like a Scientist (page 4)**

3. What is observation? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
4. The information gathered from observation is called \_\_\_\_\_.
5. Complete the table about types of data.

**TYPES OF DATA**

Type	Data Involves . . .	Example
	Numbers	
	Characteristics that cannot be easily measured or counted	

6. What is an inference? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Explaining and Interpreting Evidence (page 5)**

7. What is a hypothesis? \_\_\_\_\_  
 \_\_\_\_\_

8. In science, a hypothesis is useful only if it can be \_\_\_\_\_.
9. Is the following sentence true or false? A hypothesis should be stated in such a way that it can never be proved wrong. \_\_\_\_\_
10. What are three ways from which hypotheses may arise?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
11. Circle the letter of each of the following that may be an outcome of testing a hypothesis.
  - a. The hypothesis is partly true but needs to be revised.
  - b. The hypothesis is wrong.
  - c. The hypothesis is supported.
  - d. The hypothesis is of no value.

**Science as a Way of Knowing** (page 6)

12. What do scientists assume about the universe?  
\_\_\_\_\_  
\_\_\_\_\_
13. What are some qualities that are desirable in a scientist? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Science and Human Values** (page 7)

14. Is the following sentence true or false? A community must use its shared values to make decisions about scientific issues. \_\_\_\_\_