

**What Is Science?** ▪ *Guided Reading and Study***Thinking Like a Scientist**

*This section describes the skills scientists use to learn about the world. The section also explains the attitudes that are important in science.*

**Use Target Reading Skills**

*Before you read, preview the red headings in your text. For each heading, write a what, how, or why question in the left-hand column below. As you read, write answers to your questions in the right-hand column.*

**Scientific Skills**

| Question                     | Answer                   |
|------------------------------|--------------------------|
| What does observing involve? | Observing involves . . . |
|                              |                          |
|                              |                          |
|                              |                          |
|                              |                          |
|                              |                          |



## What Is Science? ▪ Guided Reading and Study

6. Circle the letter of each item that is true about inferences.
- a. Inferences are based on reasoning from what you already know.
  - b. Making an inference involves guessing.
  - c. An inference is an interpretation of observations.
  - d. People make inferences all the time.

### Predicting

7. Making a forecast of what will happen in the future based on past experience or evidence is called \_\_\_\_\_.
8. How are inferring and predicting related?

---



---



---

### Classifying

9. What is classifying?

---



---



---

10. Is the following sentence true or false? A drawback of classifying things is that objects and information stay disorganized. \_\_\_\_\_

### Making Models

11. What does making models involve?

---



---



---



---



---

12. Circle the letter of each item that could be a model.

- a. map
- b. movie set
- c. computer-generated illustration
- d. notebook notes

**What Is Science?** ▪ *Guided Reading and Study*

**Thinking Like a Scientist** *(continued)*

13. Is the following sentence true or false? Models help people study things that cannot be observed directly. \_\_\_\_\_
14. Is the following sentence true or false? Some information about an object or process may be missing from a model. \_\_\_\_\_

**Scientific Attitudes**

15. What is science?

---

---

---

16. What are five important attitudes that successful scientists possess?

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ |       |

17. Circle the letter of the definition of skepticism.

- a. having an attitude of doubt
- b. being open-minded
- c. coming up with inventive ways to solve problems
- d. an eagerness to learn more about a topic

18. Is the following sentence true or false? Honesty is important when a scientist's results go against previous ideas. \_\_\_\_\_