Skills Worksheet

Active Reading

Section: Tools and Techniques

Read the passage below. Then answer the questions that follow.

Measurements taken by scientists are expressed in metric units. The official name of the metric system is the International System of Measurements, abbreviated as **SI.** SI is a decimal system, so all relationships between SI units are based on powers of 10. For example, scientists measure the dimensions of objects using the SI unit for length, which is the meter. One meter (1 m), which is about 3.28 ft (a little more than a yard), equals 100 centimeters (cm), or 1,000 millimeters (mm). A meter also equals 0.001 kilometer (km). Note that the units have a prefix that indicates the relationship of that unit to the base unit. For example, a micrometer is a unit of linear measurement equal to one-millionth (0.000001) of a meter, or one-thousandth of a millimeter.

SKILL: READING EFFECTIVELY

Read each question, and write your answer in the space provided.

1. How are the metric system and SI related?

   _____

   _____

2. Why are all relationships between SI units based on powers of 10?

   _____

   _____

3. Which SI unit is used to measure the length of objects?

   _____

4. Based on the passage, what do you infer a base unit is?

   _____

   _____

5. Why do many SI units contain a prefix?

   _____

   _____

Active Reading *continued*

SKILL: ORGANIZING INFORMATION

Use information contained in the passage to complete the table.

Unit	Prefix	1 meter equals
kilometer (km)	6.	7.
centimeter (cm)	8.	9.
millimeter (mm)	10.	11.
micrometer (µm)	12.	13.

In the space provided, write the letter of the term or phrase that best completes the statement.

_____ 14. A person who is 2 m tall is
  a. a little more than 3 ft tall.
  b. less than 5 ft tall.
  c. exactly 6 ft tall.
  d. a little more than 6 ft tall.