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HW p.54 Q's. 1-5

CHAPTER 3 ACTIVE READING Cell Structure

▶ Section 3-1: Looking at Cells

Read the passage below, which is reproduced from page 50 of your textbook. 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 sizes of objects viewed under a microscope using the SI base 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). Most units have a prefix that indicates the relationship of that unit to the base unit. For example, the symbol µ stands for the metric prefix *micro*. A micrometer (µm) is a unit of linear measurement equal to one-millionth of a meter, or onethousandth of a millimeter.

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

SKILL: Reading Effectively

- 1. How are the metric system and SI related?
- 2. Why are all relationships between SI units based on powers of 10?
- 3. What unit is used to measure the length of objects viewed under a microscope?
- 4. Why do most SI units contain a prefix?

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