Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I CAN distinguish between living and nonliving things based on characteristics.

List the six characteristics of living things.

Define the words, STIMULUS, METABOLISM and HOMEOSTASIS.

Compare and contrast asexual and sexual reproduction.

Period \_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**DIRECTED READING CHAPTER 2 SECTION 1: “Characteristics of Living Things”**

**As you read Chapter 2, which begins on page 34 of your textbook, answer the following questions.**

**Imagine . . . (p. 34)**

**1.** The creatures in the Movile Cave are different from most other life-forms on Earth because

**a.** their energy supply comes from hydrogen sulfide.

**b.** their energy supply comes from sunlight.

**c.** they use energy to fuel their life processes.

**d.** some of them eat their own young for energy.

**2.** According to the text, what will you study in this chapter?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Investigate! (p. 35)**

**3.** What is going to be observed in this activity?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section 1: Characteristics of Living Things (p. 36)**

**4.** What might you have in common with a slime mold? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5**. All organisms, including fish, trees, and mushrooms, share \_\_\_\_\_\_\_\_ characteristics.

**Living Things Have Cells (p. 36)**

In the space provided, write *AT* if the statement is always true, *ST* if the statement is sometimes true, and *NT* if the statement is never true.

**6.** \_\_\_\_\_A cell has a membrane that acts as a barrier between its contents and its

environment.

**7.** \_\_\_\_\_Adult complex organisms such as monkeys and humans are made up of a few

hundred cells.

**8.** \_\_\_\_\_Living things have more than one cell.

**9.** \_\_\_\_\_A cell is too small to be seen without a microscope.

**10.** \_\_\_\_\_Cells perform specialized functions, such as transporting signals and movement.

**Living Things Sense and Respond to Change (p. 37)**

**11.** Organisms respond to changes in their environments called stimuli. What are three examples of

stimuli given in the text?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**12**. The maintenance of a stable internal environment is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**13.** When it is hot, your body sweats to maintain a temperature of about 37oC.

True or False? (Circle one.)

**Living Things Reproduce (p. 38)**

**14.** Suppose the abalone reproduces by “broadcast spawning.” The female shoots eggs into the

water, and the male shoots sperm into the water. Is this sexual or asexual reproduction?\_\_\_\_\_

**Explain**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Living Things Have DNA (p. 38)**

**15.** Deoxyribonucleic acid provides instructions for making molecules called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**16.** When they reproduce, organisms pass on copies of their \_\_\_\_\_\_\_\_\_to their offspring.

**17.** Offspring resemble their parents because of heredity. True or False? (Circle one.)

**Living Things Use Energy (p. 38)**

**18.** Which of the following statements are true about metabolism?

(Circle all that apply.)

**a.** It requires energy.

**b.** It is the sum of an organism’s chemical activities.

**c.** It occurs only in multicellular organisms.

**d.** It involves the breakdown of food.

**Living Things Grow and Develop (p. 39)**

**19.** Growth in humans takes place as their cells divide and produce more cells. How do single-celled organisms grow?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**20.** Living things, such as the oak tree in Figure 7, may \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and\_\_\_\_\_\_\_\_\_\_\_\_\_\_

as they grow.