

## Section 10–3 Regulating the Cell Cycle (pages 250–252)



**TEKS FOCUS:** Contributions of scientists

*This section describes how the cell cycle is regulated. It also explains how cancer cells are different from other cells.*

### Controls on Cell Division (page 250)

1. What happens to the cells at the edges of an injury when a cut in the skin or a break in a bone occurs? \_\_\_\_\_

2. What happens to the rapidly dividing cells when the healing process nears completion? \_\_\_\_\_

### Cell Cycle Regulators (page 251)

3. What do cyclins regulate? \_\_\_\_\_

4. What are internal regulators? \_\_\_\_\_

5. Circle the letter of each sentence that is true about external regulators.

- a. They direct cells to speed up or slow down the cell cycle.
- b. They prevent the cell from entering anaphase until all its chromosomes are attached to the mitotic spindle.
- c. They include growth factors.
- d. They prevent excessive cell growth and keep the tissues of the body from disrupting each other.

### Uncontrolled Cell Growth (page 252)

6. What is cancer? \_\_\_\_\_

7. Complete the flowchart about cancer.

Cancer cells don't respond to signals that regulate \_\_\_\_\_.



Cancer cells form masses of cells called \_\_\_\_\_.



Cancer cells break loose and spread throughout the \_\_\_\_\_.

8. Is the following sentence true or false? Cancer is a disease of the cell cycle.

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