

Cell Growth and Division

Vocabulary Practice

Answer Key

A. Analogy Vocabulary Set

1. D5; A7
2. D3; A8
3. D1; A4
4. D6; A6
5. D4; A1
6. D7; A2
7. D8; A3
8. D2; A5

B. Compound Word Puzzle

1. prophase; Sample answer: nuclear envelope breaks down
2. stem cell; Sample answer: remains differentiated for long periods of time
3. metaphase; Sample answer: second phase of mitosis
4. telophase; Sample answer: nuclear envelope starts to form again
5. anaphase; Sample answer: third phase of mitosis
6. cancer; Sample answer: characterized by the formation of tumors
7. cytokinesis; Sample answer: cell membrane pinches together in animal cells
8. chromosome; Sample answer: a long continuous thread of DNA wrapped around organizing proteins

C. Vector Vocabulary

1. a substance that causes cancer
2. disrupts the cell cycle
3. the regular pattern of growth, DNA replication, and division of a cell
4. an out-of-control cell cycle can lead to cancer
5. a disease characterized by uncontrolled cell division
6. the process by which an undifferentiated cell becomes specialized
7. specialized cells can form increasingly complex structures
8. an organized group of cells that carry out a similar function

9. a group of related tissues form an organ
10. an organized group of tissues that carry out related functions
11. a group of related organs form an organ system
12. an organized group of organs that work together to coordinate various functions

D. Word Origins

1. describes a very bad tumor that spreads
2. the first phase of mitosis
3. the end part of a chromosome
4. the movement, or division, of a cell; specifically, the division of the cytoplasm and organelles
5. the end, or final, phase of mitosis
6. the division of a prokaryotic cell into two prokaryotic cells
7. the middle part of a chromosome that looks pinched together and is the place where sister chromatids are attached to each other
8. a process in which the chromosomes become visible like threads and are evenly divided between two nuclei
9. to change form by spreading to other parts of the body
10. the second phase of mitosis, occurring after the start of mitosis



Name _____

Period _____

Date _____

CHAPTER
5

CELL GROWTH AND DIVISION
Vocabulary Practice

- | | | |
|-------------|---------------|----------------------|
| cell cycle | prophase | metastasize |
| mitosis | metaphase | carcinogen |
| cytokinesis | anaphase | asexual reproduction |
| chromosome | telophase | binary fission |
| histone | growth factor | tissue |
| chromatin | apoptosis | organ |
| chromatid | cancer | organ system |
| centromere | benign | cell differentiation |
| telomere | malignant | stem cell |

A. Analogy Vocabulary Set Write the numbers of the definitions and analogies next to each word.

DEFINITIONS	WORD	ANALOGIES
D1. makes offspring from one parent	1. benign _____	A1. a twisty tie
D2. protein that DNA wraps around	2. chromatin _____	A2. weeding
D3. loosely organized combination of DNA and proteins	3. asexual reproduction _____	A3. fertilizer
D4. constricted region of DNA where sister chromatids are attached	4. organ system _____	A4. making a copy
D5. tumor that remains in a clump	5. centromere _____	A5. the cardboard tube inside a roll of toilet paper
D6. group of organs that work together to carry out a complex function	6. apoptosis _____	A6. the United Nations
D7. programmed cell death	7. growth factor _____	A7. a shy person who won't leave the house
D8. stimulates cell division	8. histone _____	A8. tangled yarn

Copyright by McDougal Littell, a division of Houghton Mifflin Company

CHAPTER 5
Cell Growth and Division

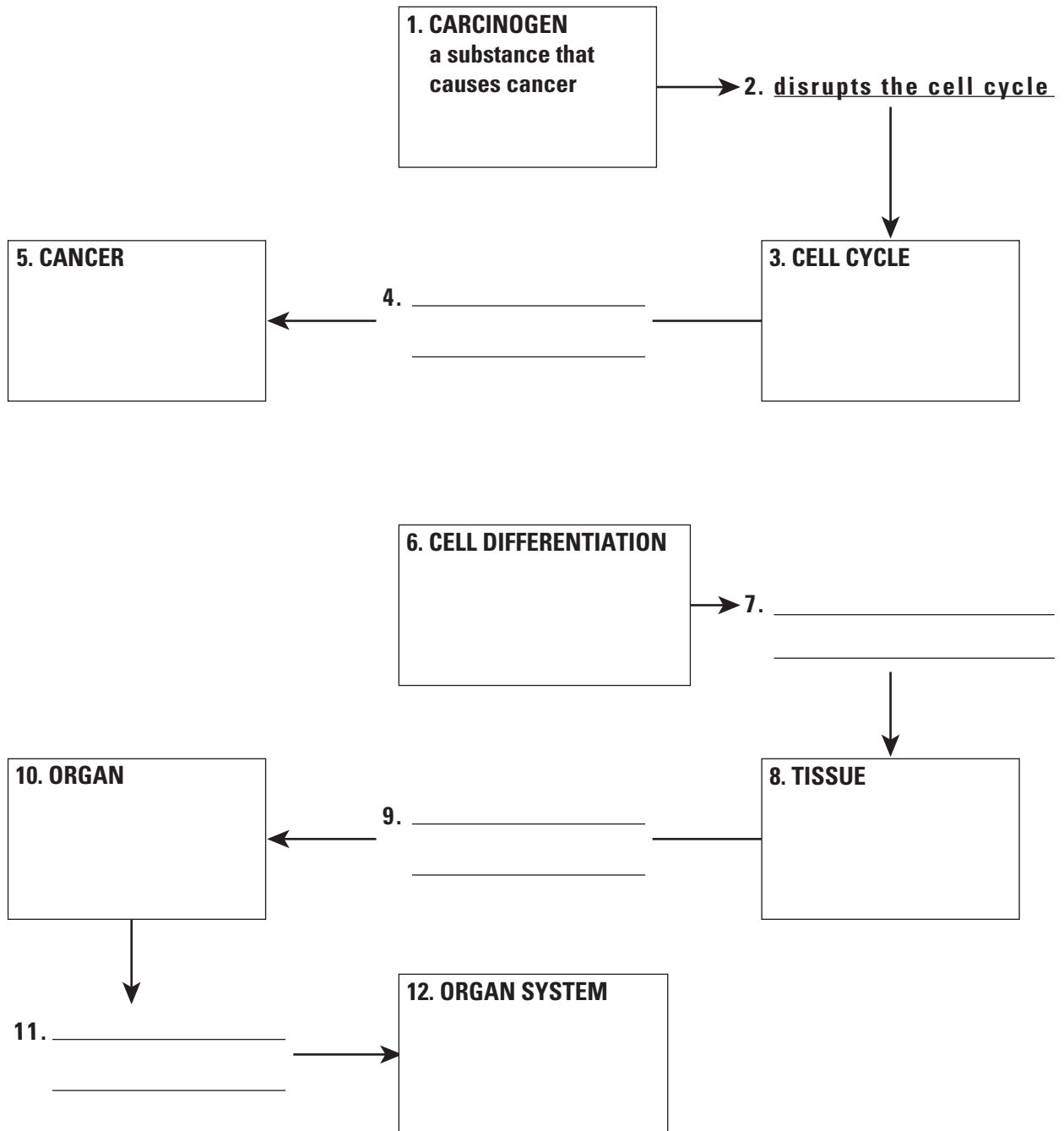
VOCABULARY PRACTICE, CONTINUED

B. Compound Word Puzzle Read the phrase and write the word that it most closely describes. Then write another phrase that describes the same word in a different way.

PHRASE 1	WORD	PHRASE 2
one half of a condensed, duplicated chromosome	Example <i>chromatid</i>	<i>separates from sister chromatid during anaphase in mitosis</i>
first phase of mitosis	1.	
may be categorized as totipotent, pluripotent, or multipotent	2.	
duplicated chromosomes line up along the cell equator	3.	
last phase of mitosis	4.	
spindle fibers pull the sister chromatids apart	5.	
a disease caused by a mutation in genes that control the cell cycle	6.	
divides a cell's cytoplasm	7.	
condenses at the start of mitosis	8.	

VOCABULARY PRACTICE, CONTINUED

C. Vector Vocabulary Define the words in the boxes. On the line across each arrow, write a phrase that describes how the words in the boxes are related to each other.



VOCABULARY PRACTICE, CONTINUED

D. Word Origins Circle the Greek and Latin word parts in each vocabulary term. Then use the Greek and Latin meanings to construct a very basic definition of the vocabulary word.

bi- = two	mal- = bad, evil	pro- = at the start
centro- = middle	-mere = part, segment	telo- = end
cyto- = cell	meta- = change; occurring after	
kin- = movement	mitos- = thread	

WORD	DEFINITION
1. malignant	
2. prophase	
3. telomere	
4. cytokinesis	
5. telophase	
6. binary fission	
7. centromere	
8. mitosis	
9. metastasize	
10. metaphase	