CHAPTER 3

## CELL STRUCTURE AND FUNCTION

**Vocabulary Practice** 

cell theory

vacuole

concentration gradient

cytoplasm

lysosome

osmosis

organelle

centriole

prokaryotic cell

cell wall

isotonic

eukaryotic cell

chloroplast

hypertonic hypotonic

cytoskeleton

cell membrane

facilitated diffusion

nucleus

phospholipid

active transport

endoplasmic reticulum

endocytosis

ribosome

fluid mosaic model selective permeability

phagocytosis

Golgi apparatus

receptor

exocytosis

vesicle

passive transport

mitochondrion

diffusion

A. 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.

cyto-	=	cell	-plast	=	small body			
phago-	=	eating	lys-	=	loosen	-tonia	=	state of
exo-	=	outside	hypo-	=	below	iso-	=	equal
endo-	=	inside	hyper-	=	over, above	chloro-	=	green

WORD	DEFINITION
1. endocytosis	
2. exocytosis	
3. phagocytosis	
4. hypertonic	
5. hypotonic	
6. isotonic	
7. lysosome	
8. chloroplast	

## VOCABULARY PRACTICE, CONTINUED

WORD	DEFINITION		
9. cytoplasm			
10. cytoskeleton			

B. Analogies Read each analogy. Decide which term is most like it.

active transport	exocytosis	passive transport
cell wall	Golgi apparatus	ribosomes
concentration gradient	nucleus	selective permeability

- 1. Chips in a chocolate chip cookie \_\_\_\_\_
- 2. Skin of a grape
- 3. Allowing only invited guests in to your party \_\_\_\_\_
- **4.** Floating on a raft through a tunnel without paddling \_\_\_\_\_
- **5.** A cab driving you to the party through heavy traffic \_\_\_\_\_
- 6. Spitting out watermelon seeds \_\_\_\_\_
- 7. Thick fog in one area, clear in another \_\_\_\_\_\_
- 8. An accordion \_\_\_\_\_
- 9. The chewy center of a candy \_\_\_\_\_

Write your own analogies to show the meaning of these terms:

- 10. cytoskeleton
- 11. phagocytosis

VOCABULARY PRACTICE, CONTINUED

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

ACTIVE TRANSPORT	PASSIVE TRANSPORT	
1	2	
	-	
	3	
OSMOSIS		DIFFUSION
4	5	6
		<b>→</b>

	_	
ISOTONIC	HYPOTONIC	HYPERTONIC
8	9	10

## VOCABULARY PRACTICE, CONTINUED

**D. Who Am I?** Choose among these terms to answer the riddles below:

	The state of the s	
cell membrane	facilitated diffusion	phospholipid
cell theory	fluid mosaic model	prokaryotic cell
centriole	lysosome	receptor
endoplasmic reticulum	mitochondrion	vacuole
eukaryotic cell	organelle	vesicle

1	. I carry out special jobs in a cell:
2	I'm an important concept and I have three main points; the last is that all cells come from existing cells:
3	I make up the two layers of the cell membrane:
4.	I describe the cell membrane structure because it is flexible and could be compared to an arrangement of tiles:
5.	I am the type of cell that has a nucleus; animal and plant cells are me:
6.	I am the type of cell without a nucleus; bacteria are me:
7.	I help molecules diffuse across a membrane through transport proteins:
8.	I have two types, smooth and rough; I help produce proteins and lipids:
9.	I contain enzymes and defend cells from viruses and bacteria; animal cells have lots of me:
10.	I am an organelle shaped like a bean; I provide energy for a cell:
	I am a cylinder-shaped organelle in animal cells, and I help make flagella:
12.	I am the outer edge that separates a cell from the outside environment; I control what goes in and out of a cell:
13.	I receive signals from molecules and make sure the right cell gets the right signal at the right time:
14.	I'm a sac filled with fluid inside a cell; I store materials the cell needs:

15. I'm a little organelle that carries materials from one part of the cell to another; I don't

live long, but I can be recycled: \_