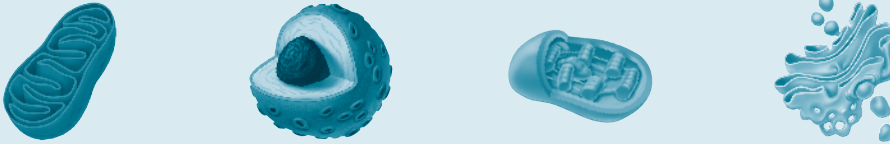


Chapter 3 Review

1. What are the three major parts of the cell theory? _____

2. Label the organelles shown below, and write a brief description of their functions.



3. Which of the following is an example of selective permeability?

- a. a magnet
- b. a window screen
- c. a milk jug
- d. a bottle rocket

4. The head of a phospholipid interacts with water because it is _____.

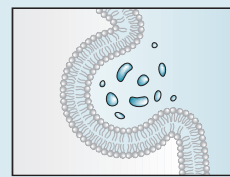
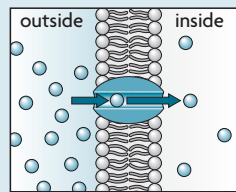
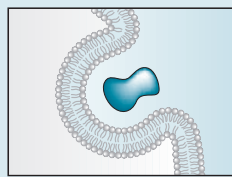
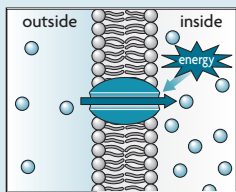
5. Diffusion is an example of

- a. passive transport
- b. membrane receptors
- c. active transport
- d. transport proteins

6. A _____ solution has a higher concentration of solutes than a cell.

7. A _____ is a protein that recognizes and responds to a signal.

8. Label each of the figures below with one of the following terms: exocytosis, active transport, endocytosis, or facilitated diffusion. Draw a star beside the processes that require a cell to use energy.



Vocabulary Practice

- | | | |
|-----------------------|------------------------|------------------------|
| cell theory | vacuole | concentration gradient |
| cytoplasm | lysosome | osmosis |
| organelle | centriole | isotonic |
| prokaryotic cell | cell wall | hypertonic |
| eukaryotic cell | chloroplast | hypotonic |
| cytoskeleton | cell membrane | facilitated diffusion |
| nucleus | phospholipid | active transport |
| endoplasmic reticulum | fluid mosaic model | endocytosis |
| ribosome | 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.

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

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

Name: _____ Class: _____ Date: _____

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 _____

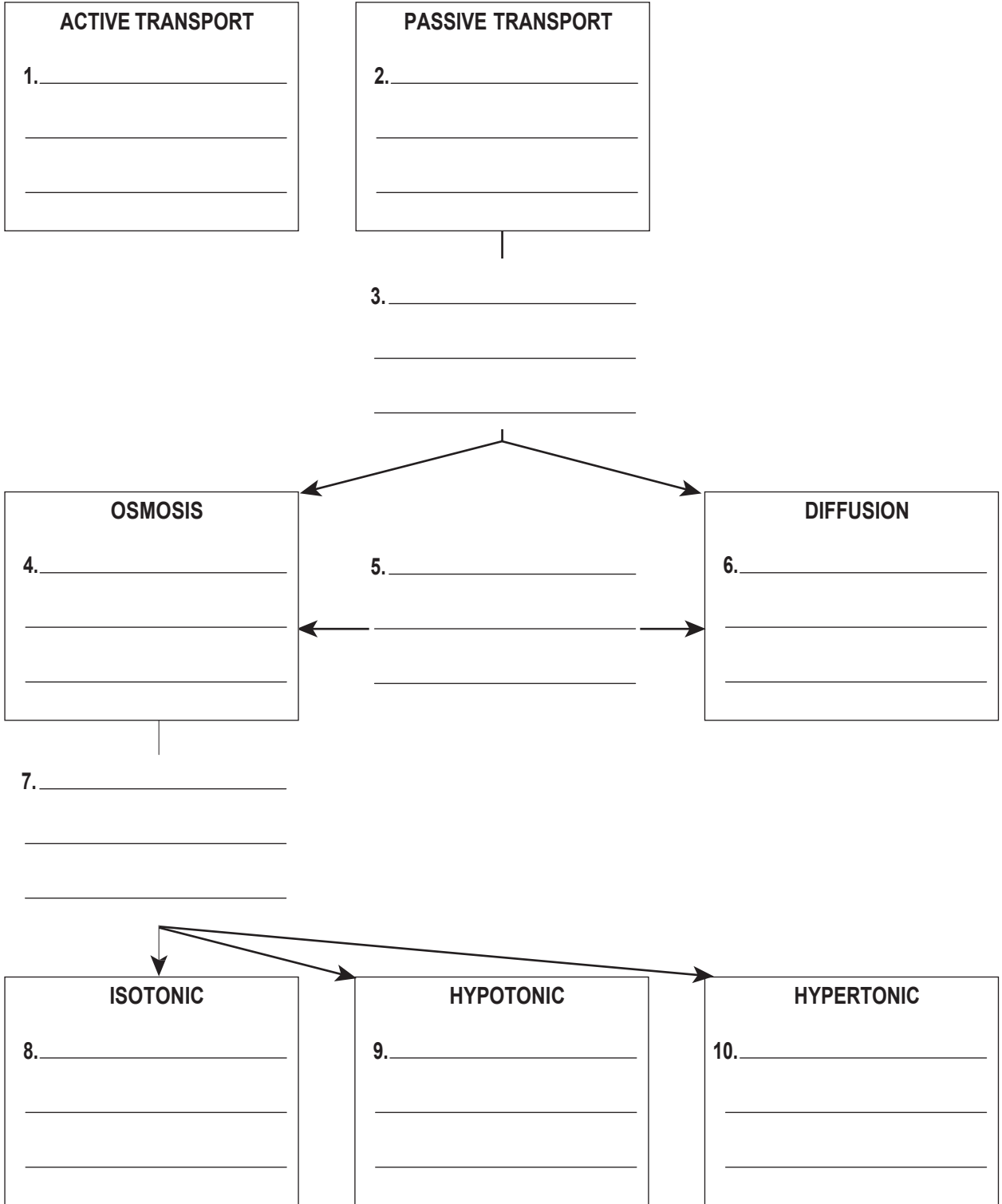
Write your own analogies to show the meaning of these terms:

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.



VOCABULARY PRACTICE, CONTINUED

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

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: _____
11. 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: _____