

Key

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	inside cell
2. exocytosis	outside cell
3. phagocytosis	eating cell
4. hypertonic	state of being over/above (sol)
5. hypotonic	state of being below (sol)
6. isotonic	equal state of being
7. lysosome	loosen
8. chloroplast	small green body



VOCABULARY PRACTICE, CONTINUED

WORD	DEFINITION
9. cytoplasm	cell area
10. cytoskeleton	cell skeleton

**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 ribosomes
2. Skin of a grape cell wall
3. Allowing only invited guests in to your party selectively permeable
4. Floating on a raft through a tunnel without paddling passive transport  
active transport (\$)
5. A cab driving you to the party through heavy traffic golgi apparatus
6. Spitting out watermelon seeds exocytosis
7. Thick fog in one area, clear in another concentration gradient
8. An accordion golgi apparatus (highly folded!)
9. The chewy center of a candy nucleus

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

10. cytoskeleton  
↳ like the bones in our body
11. phagocytosis  
↳ like eating a burrito & then discarding the waste



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**  
 1. Type of  
transport that  
REQUIRES ATP  
(energy) + protein

**PASSIVE TRANSPORT**  
 2. NO ATP (energy)  
required May  
need protein

3. Both transport  
materials

**OSMOSIS**  
 4. movement  
of water

5. HIGH → LOW  
NO ENERGY  
PASSIVE

**DIFFUSION**  
 6. movement  
of fluid or  
gas

7. water (solvent)  
levels determine  
type of solution

**ISOTONIC**  
 8. Equal water  
rate in and  
out

**HYPOTONIC**  
 9. more solvent  
than solute  
(water ENTERS  
the cell)

**HYPERTONIC**  
 10. more solute  
than solvent  
(water leaves  
the cell)



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 ✓

- I carry out special jobs in a cell: organelle
- I'm an important concept and I have three main points; the last is that all cells come from existing cells: ~~phospholipid~~ cell theory
- I make up the two layers of the cell membrane: phospholipid
- I describe the cell membrane structure because it is flexible and could be compared to an arrangement of tiles: fluid mosaic model
- I am the type of cell that has a nucleus; animal and plant cells are me: eukaryotic
- I am the type of cell without a nucleus; bacteria are me: prokaryotic
- I help molecules diffuse across a membrane through transport proteins: facilitated diffusion
- I have two types, smooth and rough; I help produce proteins and lipids: endoplasmic reticulum
- I contain enzymes and defend cells from viruses and bacteria; animal cells have lots of me: lysosomes
- I am an organelle shaped like a bean; I provide energy for a cell: mitochondria
- I am a cylinder-shaped organelle in animal cells, and I help make flagella: centriole
- I am the outer edge that separates a cell from the outside environment; I control what goes in and out of a cell: cell membrane
- I receive signals from molecules and make sure the right cell gets the right signal at the right time: receptor
- I'm a sac filled with fluid inside a cell; I store materials the cell needs: vacuole
- 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: vesicle