



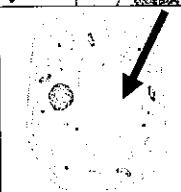


Unit Test 2 Study Guide

Name _____

1. Know the differences between prokaryotes and eukaryotes. (also be able to pick out a picture of a prokaryote and a eukaryote). Fill in the following chart by checking the correct column for each statement:

Statement	Prokaryotes	Eukaryotes
Organisms that have cells that LACK membrane bound organelles		
Do NOT have a nucleus		
Can be either unicellular or multicellular		
Only unicellular organisms		
Organisms that have cells containing organelles		
Have ribosomes		
DNA is found in a nucleus		
Have a plasma membrane and cytoplasm		

2. What organisms are made up of prokaryotic cells? _____
3. Be able to pick out the following cell parts in a picture of a cell: Nucleus, Ribosomes, Chloroplast, Vacuole, Mitochondria, Plasma Membrane, Cell Wall.
4. Complete the following chart: YOU NEED TO KNOW WHAT EACH PART DOES!!

Cell Part/Name of cell part	Function
	
	
	
	
	



5. What are the differences between plant and animal cells. (pick parts from the chart above)

Plant Cells have _____, _____,
and _____.

6. Be able to match the following cells with their functions

- | | |
|----------------------|--|
| ___ Sperm cell | a. transport oxygen, contains hemoglobin |
| ___ Red Blood Cell | b. made to contract and relaxes |
| ___ Neuron | c. made for movement (many mitochondria, flagella) |
| ___ White Blood Cell | d. made to transmit messages |
| ___ Muscle Cell | e. made to fight antigens |

7. What does it mean for a cell to be specialized? *(differentiated)*

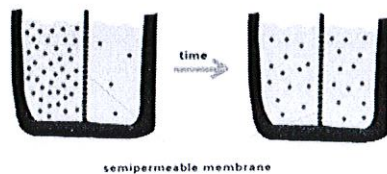
8. What is the difference between passive and active transport.

Describe how substances move (high to low or low to high).

Which process requires the use of energy?

9. Describe the differences between diffusion, osmosis and facilitated diffusion.

Describe what happened in the diagram:

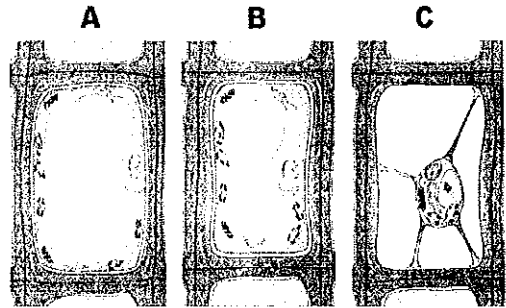


10. Describe what kind of solution the following cells are in and what has happened to those cells.

A:

B:

C:



11. What are the differences between endocytosis and exocytosis?

12. Biogenergetics:

- a. What are the reactants and products of photosynthesis?
- b. What factors have an effect on photosynthesis?
- c. What are the reactants and products of cellular (aerobic) respiration?
- d. How much ATP is produced by aerobic respiration?
- e. What are the two types of anaerobic respiration (fermentation)?
- f. Where do these processes (anaerobic respiration) occur?
- g. How much ATP is produced by anaerobic respiration?

Websites that might be helpful for review:

http://www.biology.arizona.edu/cell_bio/cell_bio.html choose cell membrane or prokaryote, eukaryote and viruses

<http://www.classzone.com> (click on high school science, north carolina, find your book. Click on the biology book. Click on interactive review. Use the activities from ch.3-cell structure and function-found in the green box in the upper left hand corner)

<http://www.cellsalive.com>