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WLHS / Biology

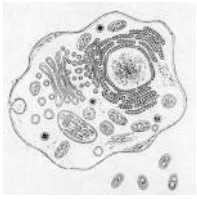
Unit Review / Study Guide: CELLS and CELL PROCESSES (Chapter 7)

1. List the three parts of the cell theory
   a.
   b.
   c.

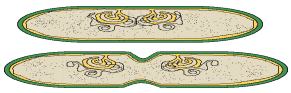
2. Explain the differences between prokaryotic and eukaryotic cells in terms of their parts and what types of organisms fit into that group.

Cell Type	Parts	Organisms
Prokaryotic		
Eukaryotic		

3. Compare the cellular characteristics of plant and animal cells. (list at least 4 differences)



4. List all of the cell parts that have something to do with the nucleus.



5. List all of the cell parts that have to do with storage, packaging and transport.

6. List all of the cell parts that have to do with energy production or conversion.

7. What do lysosomes do?

8. What do ribosomes do?

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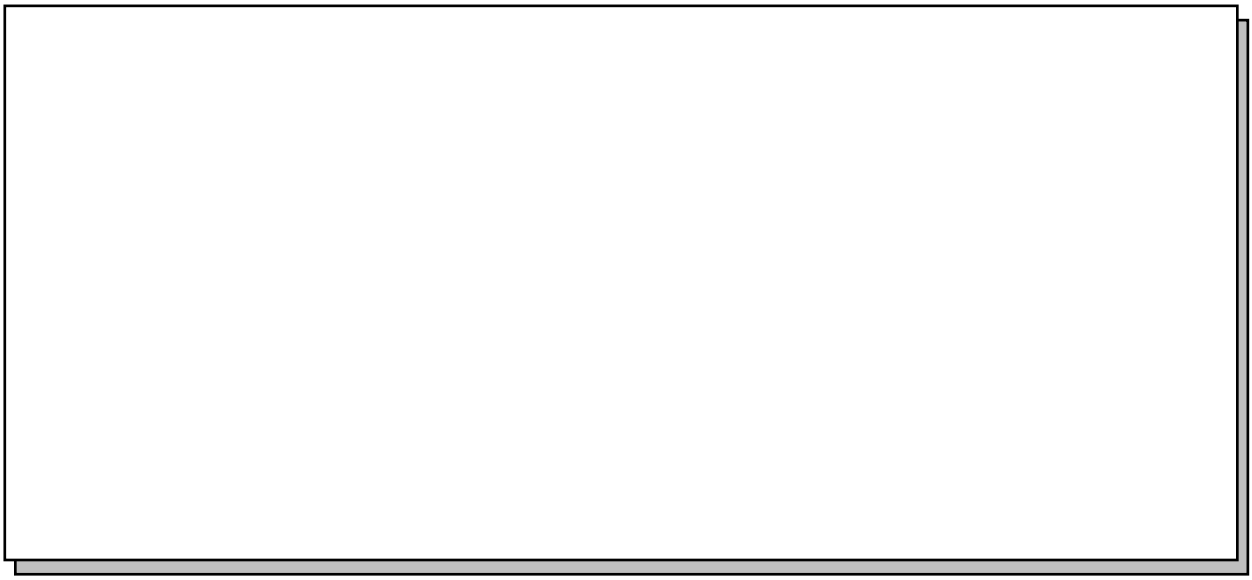
7. Draw a plant cell, label the parts below and describe each of their functions.

lysosome	smooth ER	Golgi apparatus	cell wall	rough ER
nuclear envelope	vacuole	plasma membrane	chloroplast	ribosome
mitochondria	nucleus	nucleolus		



8. Describe how an animal cell and a plant cell are **different**:

Characteristic	**Plant Cells**	**Animal Cells**
Shape		
Organelles		
Outer covering		

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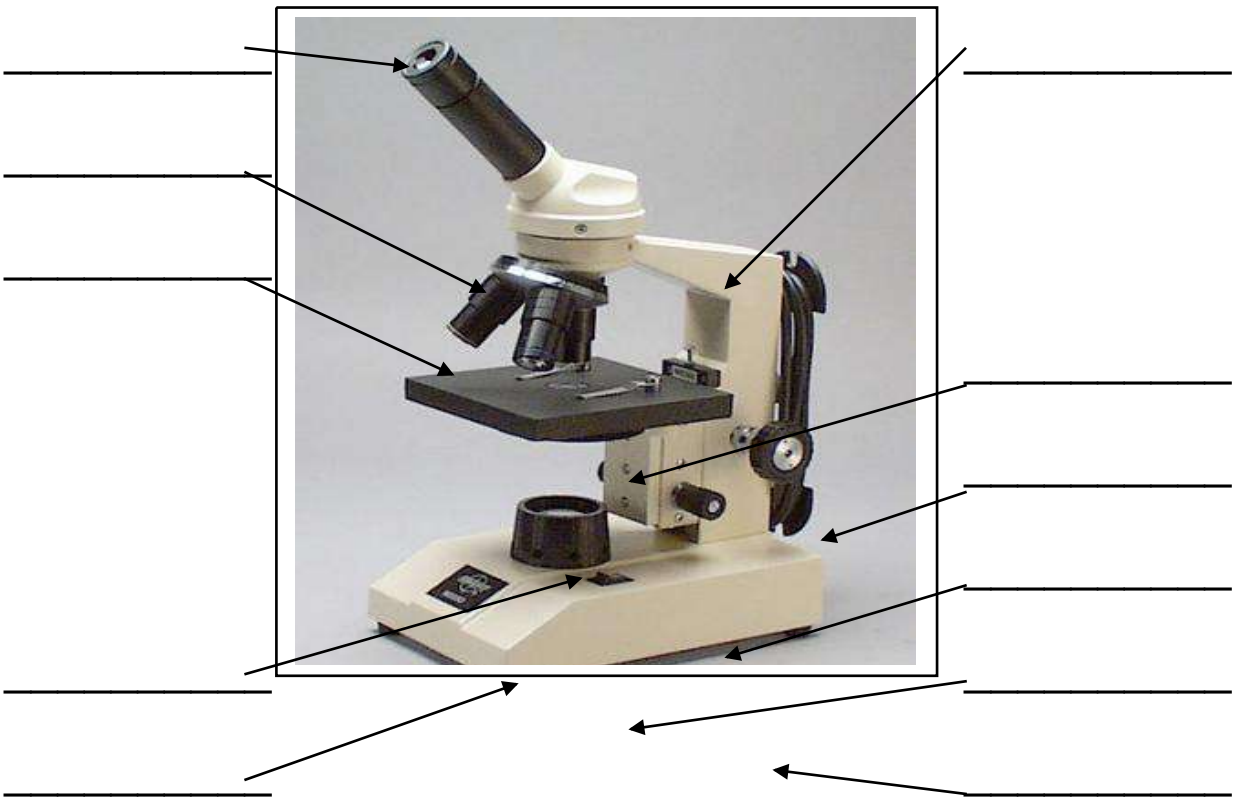
9. Label The Parts of a typical light microscope (and know their uses).



10. Describe the steps you should follow to properly view a specimen with a light microscope.

11, What is passive transport?
   a. Give 2 examples.

12. What is active transport?
   a. Give 2 examples.

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13. Draw and label a cell membrane. Point out examples of structures -of **and** within- the membrane that support its function in the life of a cell.

13. What passes freely through the cell membrane?

14. What is osmosis?

15. The core of all cell membranes is a double-layered sheet called a(an) _____.

16. What is the function of the carbohydrate chains (glycoproteins) attached to the outside of the membrane?

Type of solution	**Hypertonic**	**Isotonic**	**Hypotonic**
Picture of a cell after water movement.			
What happened?			

If you do not already have flashcards for the vocabulary in Chap 7, it would be wise to make them. Knowing those terms is a good start. Understanding the connections between them is the big ticket to doing well. Practice pulling 3-5 flashcards from the deck and either drawing a T-chart for them or creating a concept map to connect them. **Practice making the connections.** It would also be good

There are **two** self assessments at the end of the

practice to make a concept map of the 7 properties of life and then figure out *which organelles support which property* or properties of life.