Unit 1 Study Guide

Cell Organelles: *Tell what each organelle's function is below.*

Chloroplast	Lysosomes	Vacuole
Cell Membrane	Cell wall	Mitochondria
Golgi Bodies	Ribosomes	Endoplasmic Reticulum
Nucleus	Nucleolus	Cytoplasm

Labeling: Identify each organelle below. Circle the organelles that are DIFFERENT for the plant and animal.





List the similarities and differences between prokaryotic and eukaryotic cells.

Prokaryotic	Both	Eukaryotic

Cell Division:

- 1. What are the 3 reasons for cell division?
- 2. Mitosis and Meiosis are responsible for the nucleus being ______
- 3. What is the purpose of the cell cycle?
- 4. How many cells are produced from mitosis? ______ Meiosis? ______

- 5. What process is shown below?
 - a. Identify/label each phase below:



- 6. What is responsible for chromosomes moving within the cell?_____
- 7. What would happen if the spindle fibers were not able to attach to the chromosomes?
- 8. What is genetic information and where is it located?
- What would happen if a cell lost its nucleus or it was damaged? 9.

Cell Processes:

- 1. Diffusion moves particles from area of ______ concentration to areas of ______ concentration.
- 2. Cell respiration is the process that cells use ______ and _____ to create ______.
- 3. What is photosynthesis and what cells use photosynthesis?
- 4. What is osmosis? ______
- 5. Look at the diagram below. Name the process being illustrated in figure A and figure B and explain what is happening.



- 6. How is food converted into energy?
- 7. How do animal cells get their energy?
- 8. What is the purpose of cellular respiration?
- 9. What allows materials to enter and exit a cell?
- 10. Why do cells have different shapes? ______
- 11. What is the formula for Photosynthesis?______
- 12. What is the formula for cell respiration?