

Name _____

Cell, Cell Parts, and Cellular Transport

1. Describe the function and location of each of the following cell parts:

Nucleus

Cytoplasm

Nucleolus

Endoplasmic Reticulum

Chloroplast

Cell Wall

Lysosomes

Ribosomes

Central Vacuole

Golgi Apparatus

Chromatin/DNA

Cilia

Flagella

2. Describe the phospholipid molecule (the major component of a cell membrane) in terms of its chemical composition, areas of polarity and non-polarity, and orientation in forming a lipid bilayer.

4. Briefly discuss the process of diffusion and why this type of movement is considered passive transport

5. Why is the plasma membrane "selectively permeable", what materials pass readily across the membrane and what materials don't?

6. Explain what is meant by a "dynamic equilibrium".

7. Differentiate between hypertonic, hypotonic and isotonic solutions. Make sure you can predict the movement of water into and out of each of these types of solutions.

8. What is turgor pressure and how does it help plants to remain upright?

9. Describe the process of plasmolysis, why does it occur?

10. Make sure you can discuss the implications of the transport lab (with the sweet potato and potato).

11. Describe what is meant by facilitated diffusion, is this type of transport considered to be passive or active, why?

12. Describe the process of active transport and why energy is required.