

Name _____ Date _____ Period _____

Bio-Chem

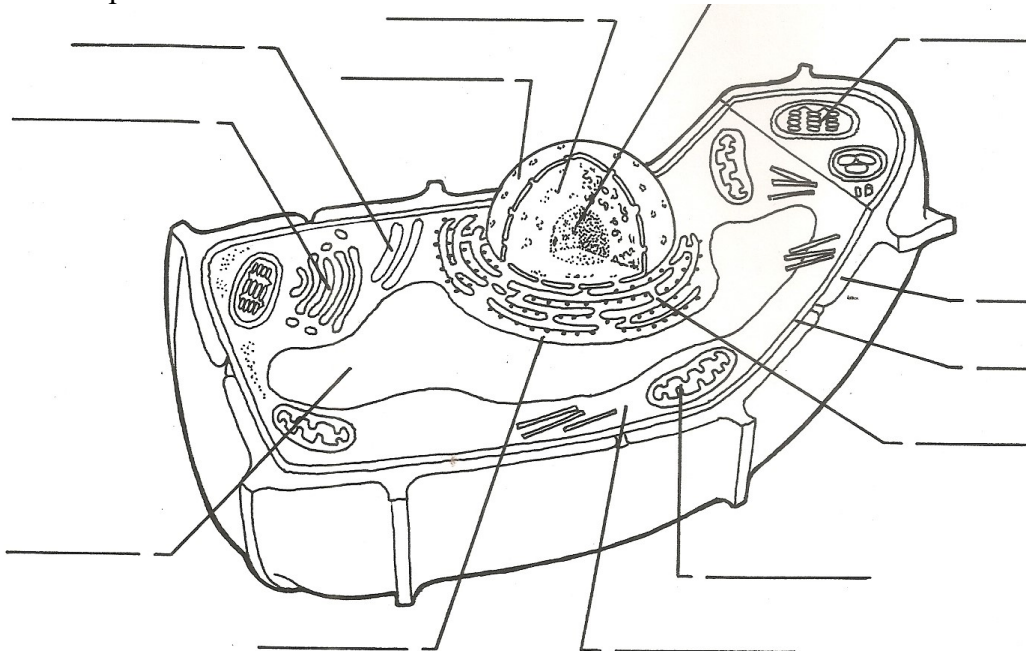
Review Unit 2 Cell/ Cell Transport

Directions Use the book pages 208-217 for cell transport, and 190-207 for cells. You may also want to look at any handouts or information gained in class.

1. "Hypo" means _____ "strength".
2. _____ transport requires the use of cell energy to move materials through the cell membrane against the concentration gradient.
3. _____ is a specific term referring to the movement of small particles or liquids into the cell.
4. _____ diffusion moves substances passively through the membrane from high concentrations to low concentrations using carrier proteins.
5. _____ is a specific term referring to the movement of large particles or solids into the cell.
6. _____ solutions have equal concentrations of solutes inside and outside the cell.
7. _____ solutions have lower concentrations of solutes outside the cell.
8. _____ solutions have higher concentrations of solutes outside the cell.
9. _____ transport allows substances to enter the cell without any energy being used from the cell.
10. A cell that is 70 percent water is placed into a 30 percent sugar water solution, what will happen to the cell? Water will move _____ of the cell .
11. A concentration _____ refers to the difference between the high and low concentrations.
12. A cell that is 60 percent water is placed into a 30 percent sugar solution in water. What will happen to the cell? Water will move _____ of the cell.
13. A general term that refers to the bulk transport of large objects into the cell is _____
14. Animal cells have no cell walls. When placed in hypotonic solutions animal cells may _____ or burst.
15. Because of osmosis, plant cells build up water pressure inside. This pressure is called _____ .
16. Bulk movement of materials out of the cell is referred to as _____ .
17. Cell membranes are selectively _____ , which means that they allow only certain substances to pass through.
18. Diffusion rates may be affected by: concentration, temperature, and _____ .
19. Distilled water has no solutes and is therefore _____ to all cells.
20. Glucose enters cells through the process of _____ diffusion.
21. Hypertonic solutions cause water to flow _____ of a cell. (like putting salt on a snail)
22. Hypotonic solutions cause water to flow _____ the cell.
23. If a cell that is 80 percent water is placed into a 30 percent sugar in water solution, what will happen to the cell? Water will move _____ of the cell.
24. If a cell that is 80 percent water is placed into a distilled water solution, what will happen to the cell? Water will move _____ of the cell.

25. _____ and diffusion are examples of passive transport which take place without cell energy.
26. Osmosis depends on the concentration gradient on each side of the membrane which is determined by the concentration of _____ dissolved in the water.
27. Some cells may pump out excess water through special organelles called _____ vacuoles.
28. Special protein molecules called _____ proteins move some larger molecules through the membrane.
29. The bursting of cells due to osmosis is referred to as _____.
30. The cell membrane is composed of a double layer of _____ with some proteins embedded in and through it.
31. The current model of membrane structure is called the Fluid _____ Model.
32. The diffusion of water through a selectively permeable membrane is termed _____.
33. The prefix "hyper" means "_____ strength".
34. The prefix "iso" means "_____".
35. The random motion of molecules (when first observed) was referred to as _____ motion.
36. The random motion of molecules that occurs from a region of higher concentration to a region of lower concentration is called _____.
37. The shrinking of cells due to osmosis is referred to as _____.
38. Water flows in and out of cells until it reaches _____ (equal concentrations). Then it _____ then it _____ flowing in both directions in equal amounts.

39. Label this picture



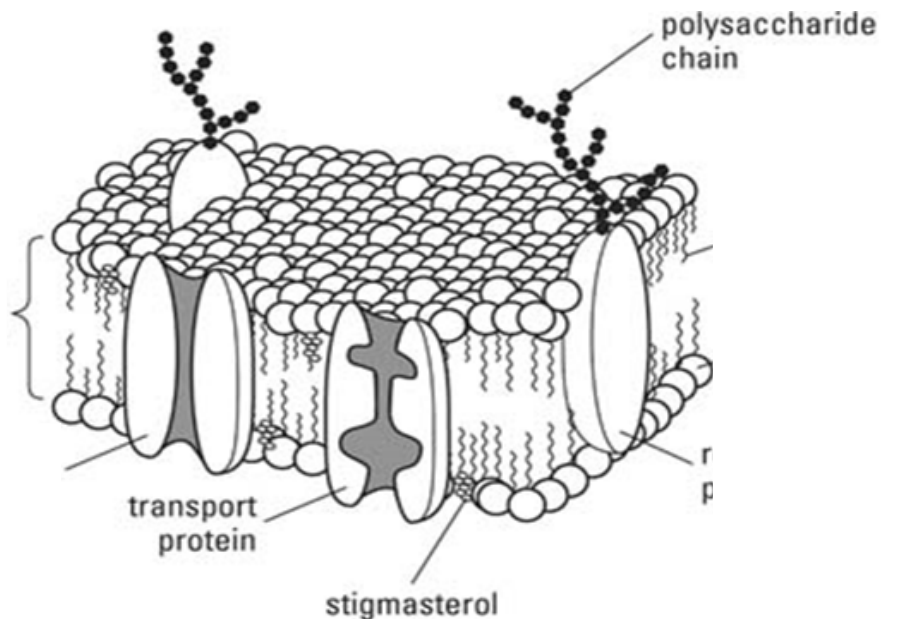
40. What type of cell is this? Give evidence of how you know this.

41. Fill in the function below

Label	Structure Name	Structure Function
1		
2		
3		
4		
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9		

42. Why is the cell membrane referred to as a “Fluid Mosaic”?

43. Explain what is meant by semi-permeable. How does this describe the cell membrane- give examples.



44. Be able to explain why cells are small and give evidence by showing the math.

45. Know the difference in prokaryotes and eukaryotes. Be able to give specific examples into the differences.

46. Cell Theory what are the 3 premises?