**Unit 3 Study Guide:**

**Cell/ Cell Transport**

1. **What are the 3 parts of cell theory?**
2. **Who is involved?**
3. **What are the differences between prokaryotic and eukaryotic cells?**
4. **Do bacteria have DNA?**
5. **What are the differences between plant and animal cells?**
6. **Draw the Organelle and state the Function:** 
   1. Cell Nucleus
   2. Chloroplast
   3. Golgi Apparatus
   4. Lysosome
   5. Mitochondria
   6. Nucleolus
   7. Ribosomes
   8. Rough Endoplasmic Reticulum
   9. Smooth Endoplasmic Reticulum
   10. Vacuoles
7. **Where in the cell can ribosomes be found?**
8. **What is the main biological function of ribosomes?**
9. **What is the difference between smooth and rough endoplasmic reticulum?**
10. **Why are lysosomes known as “the cleaners” of the cell waste?**
11. **What is the endosymbiotic hypothesis about the origin of mitochondria?**
12. **What are stem cells?**
13. **What is cell differentiation/specialization?**
14. **What are the 3 levels of cell organization?**
15. **What is a cell membrane composed of and how does it regulate what goes in and out of a cell?**
16. **What is the difference between a cell wall and a cell membrane?**
17. **Do membranes only form the outer membrane of cells?**
18. **What is the difference between active and passive transport?**
19. **What are 2 examples of passive transport?**
20. **What is an example of active transport?**
21. **What is diffusion?**
22. **What is osmosis?**
23. **What is osmotic pressure?**
24. **What are hypotonic, isotonic and hypertonic solutions? Draw Examples and show the movement of *water*.**
25. **On the inside of a cell, it is 75% water and 25% salt. On the outside of the cell it is 60% water, 40% salt. Draw the cell.**
    1. **Will water move into or out of the cell?**
    2. **Will the cell shrink or swell?**
    3. **Is the solution outside of the cell hypertonic or hypotonic?**
26. **What is endocytosis and exocytosis?**