

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## ***BIOLOGY – STUDY GUIDE CHAPTER 2c & 7b***

1. Be able to answer all of the questions from the chapter 2c & 7b problem set.
2. Know that water always moves to where there's MORE STUFF!
3. Know the vocabulary associated with the cell membrane: sugar, phospholipid, cholesterol, channel protein, and carrier protein.
4. Draw a piece of a phospholipid bilayer. Label the heads as polar and the tails as non-polar. Be able to include a transport protein.
5. Know the definitions and pictures for diffusion, facilitated diffusion, and active transport.
6. Know how small, non-polar, or uncharged particles cross the membrane. Know how large, polar, or charged particles cross the membrane.
7. Be able to do a U-tube problem.
8. Know what a concentration gradient is. Know what equilibrium is. Know what it means for a particle to move UP the gradient. Know what it means for a particle to move DOWN the gradient. Which one requires energy?
9. Know what osmosis is. What happens to cells in fresh water and in salty water?
10. Be able to do the questions on the "Blood Cells" worksheet.
11. Know how diffusion and active transport relate to potential energy and kinetic energy.
12. Know all about enzymes!
  - definition of enzyme, activation energy, substrate, active site
  - draw graphs of activation energy with and without an enzyme
  - draw diagram of substrate, active site, and enzyme
  - describe the "lock and key" model
  - know the 3 enzyme conditions and be able to explain (pH, heat, inhibitor)
  - draw diagrams that shows how BOTH inhibitors work
13. Understand what you did in the labs and activities for this chapter.

THERE WILL BE SOME THOUGHT QUESTIONS ON THIS QUIZ. YOU WILL HAVE TO ANALYZE DATA AND COME UP WITH CONCLUSIONS ON YOUR OWN. WHEN YOU STUDY, DON'T JUST MEMORIZE THE INFORMATION. YOU WILL NEED TO APPLY WHAT YOU KNOW TO NEW SITUATIONS.