

Name _____

TRANSPORT (CHAPTER 3) READING GUIDE

Directions—Completely address each of the following items in your notes.

1. Refer to pages 37 and 38 from chapter one—diagram and appropriately label the relationship of phospholipids molecules in the membranes of living cells. Be sure to indicate those parts that are polar and those that are non-polar.
2. Indicate substances that pass across living membranes easily and those that do not.
3. Add transport proteins to your diagram of a membrane from #1. What is the function of these transport proteins?
4. Use the terms concentration gradient, Brownian motion (random movement of molecules) and dynamic equilibrium (just equilibrium in our text) to describe the tendency of molecules to move from high to low concentration.
5. Apply this (#4) to the movement of water and what is meant by and how this creates turgor.
6. Distinguish among examples of passive transport, active transport and facilitated diffusion
7. What is meant by end-and exocytosis—active or passive transport?
8. Describe what is meant by “countercurrent exchange” and why fish need a particularly efficient strategy for gas exchange.
9. Land based organisms internalized gas exchange structures to reduce water loss but in doing so created what challenge? What adaptations address this challenge?
10. Diagram human respiratory tract by including trachea, bronchi, bronchioles and alveoli.