Name:

Date:

**Unit 1 Quiz 2 Study Guide**

Do on a separate sheet of paper. Due Monday

1. What is the difference between a monomer and a polymer?
2. For each macromolecule, what is a monomer and a polymer for each? Draw an example?
3. What is a function for each macromolecule?
4. What are some properties of phospholipids?
5. What parts does a nucleotide have? Draw an example.
6. How does an enzyme affect a chemical reaction? List two examples.
7. What happens to enzymes in extreme environmental conditions?
8. 

For the above graph describe the behavior of each enzyme.

 At what pH do they catalyze a reaction the fastest?

 At what pH do they denature?

1. In the graph above, what enzyme would do best in an acidic environment like the stomach? Why?
2. Draw a cell membrane. Include how the phospholipid is structured and include other substances in the cell membrane.
3. How does a cell membrane help with homeostasis?
4. What molecules can easily pass through a cell membrane? What molecules have a difficult time passing through a cell membrane?
5. How do small, non polar molecules pass through the cell membrane?
6. How do large, polar molecules pass through the cell membrane?
7. How can a particle pass through a cell membrane with no energy?
8. In what situations does a cell need to use energy to move something across a membrane? Why?
9. What is osmosis?
10. How do hypertonic environments affect a cell? Draw an example.
11. How do hypotonic environments affect a cell? Draw an example.
12. How do isotonic environments affect a cell? Draw an example.