**Chapter 8 and 9 Test Study Guide**

***Photosynthesis***

1. 2 ways to get energy
2. ATP
   1. What it stands for
   2. 3 parts and know the parts of the diagram
3. When is energy released from ATP? How is ATP generated again? What is ATP synthase?
4. Why do cells need energy?
5. What does the word “photosynthesis” mean?
6. Where does photosynthesis occur?
7. Light-dependent vs. Light-independent reactions
   1. Description
   2. Where it occurs
   3. Products
8. Know the accomplishments/conclusions of the following:
   1. Van Helmont
   2. Priestley
   3. Ingenhouz
9. 4 requirements for photosynthesis to occur
10. 3 factors that affect rate of photosynthesis
11. Definition of pigment
12. Why are plants green?
13. Definition of chlorophyll; what is its purpose?
14. Equation of photosynthesis (in words and symbols)
15. Definitions: stroma, grana (um), thylakoid
16. Be able to label the parts of a chloroplast
17. Know the phases of photosynthesis
18. 2 additional names for the light-independent cycle
19. Photosynthesis vs. chemosynthesis
20. Autotroph vs. heterotroph
    1. Definition
    2. Examples
21. What is a photosystem? What is its purpose?
22. Where are photosystems located?
23. How do electrons travel between photosystems?
24. What begins the light-dependent processes of photosynthesis?

***Cellular Respiration and Fermentation***

1. Definition: aerobic, anaerobic
2. What is the main purpose of cellular respiration?
3. 3 processes of aerobic cellular respiration; know their order!
4. Know where the processes of cellular respiration take place.
5. 2 types of fermentation; which animals do which one
6. Where does cellular respiration mainly occur? (in which organelle?)