Things to Know
for Test on Ch. 8-9 (Photosynthesis and Cellular Respiration)

Chapter 9 – Cellular Respiration

1. Describe the difference between an autotroph and a heterotroph.
2. Describe ATP and how it is used to store and release cellular energy.
3. Describe the relationship between glucose and ATP.
4. Explain the process of lactic acid fermentation. Describe the effects of lactic acid on the body. Contrast lactic acid fermentation with alcoholic fermentation.
5. Explain the process of alcoholic fermentation. List some uses of alcoholic fermentation. Explain the purpose of alcoholic fermentation for plants and yeast.
6. Give the (balanced) chemical equation for aerobic cellular respiration.
7. Explain the overview diagram of cellular respiration (Fig. 9-2).
8. Explain what happens in glycolysis.
9. Explain what happens in the Krebs cycle (Fig. 9-6)).
10. Explain the events of the electron transport chain (ETC) (Fig. 9-7).

Ch. 8 - Photosynthesis

11. Give the (balanced) chemical reaction for photosynthesis.
12. Explain how the photosynthesis and respiration reactions relate to one another.
13. Explain the overview diagram of photosynthesis (Fig. 8-7)
14. Explain what happens in the Light-Dependent reactions of photosynthesis (Fig. 8-10).
15. Explain what happens in the Calvin Cycle (Light-Independent reactions) of photosynthesis (Fig. 8-11).

Note: Questions regarding the labs might be included as well.