

## ***STUDY GUIDE CHAPTERS 5b-7***

1. There will be 20 multiple choice questions based on the following topics:
  - photosynthesis, cellular respiration, fermentation, ATP, energy
2. Draw and label an ATP molecule. Be able to identify the adenosine part as well as the 3 phosphate groups. Identify and label the high energy bond.
3. Draw and discuss the ATP cycle. Discuss what this cycle means.
4. Know the difference between “energy” and “ATP”. Are foods that are called “energy bars” appropriately named?
5. Know the number of ATP’s that are produced by each of the following: glycolysis, Krebs cycle, electron transport chain, fermentation. Also, how many total are made in the 3 phases of cellular respiration?
6. Draw the lock and key fit between PFK, ATP, and glucose. Explain!!!
7. Draw the mitochondria and chloroplast diagrams. Discuss how the structure of each is related to SURFACE AREA.
8. Know the relationship between plants and animals in terms of two gases: oxygen and carbon dioxide.
9. Know how cyanide affects the electron transport chain.
10. Know what ATP, PFK, NADPH, NADH, and FADH<sub>2</sub> stand for.
11. Know the photosynthesis and cellular respiration cycle diagrams.
12. Be able to answer all of the questions from the exercise lab.
13. Study the light reactions, dark reactions, glycolysis, Krebs cycle, electron transport chain, and fermentation. [THIS IS WORTH MANY, MANY POINTS!!! ☺]

SOME (but not all) of the vocab is listed below...

ATP, ADP, phosphate group, sunlight, stomata, veins, roots, chloroplast, chlorophyll, accessory pigments, light reactions (water, oxygen gas), NADPH, electron carrier, glucose, rubisco, photosynthesis, cellular respiration, mitochondrion, surface area, glycolysis, C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>, NADH, FADH<sub>2</sub>, phosphofructokinase, aerobic, anaerobic, fermentation, lactic acid fermentation, alcohol fermentation, yeast, Krebs cycle, pyruvate, oxygen gas, water, “final electron acceptor”, shape of glucose, reflection, absorption, white, black

# **MAKE LOTS AND LOTS OF FLASH CARDS!!!**