**CHAPTER 8: CELLULAR ENERGY RFC #1**

\* Read the following questions, **THEN** read from Chapter 8 p. 217 - 221, **THEN** answer the following questions on your own paper in complete sentences. ***ANSWERS ARE NOT IN ORDER, YOU MUST READ FIRST!***

1. What is energy required for inside the cell?
2. Compare and contrast catabolic and anabolic pathways.
3. In cellular respiration, what are the reactants and what are the products? **BONUS**: Write out the chemical reaction.
4. Describe the 1st law of thermodynamics in detail.
5. What is the most important biological molecule that provides chemical energy?
6. What is a metabolic pathway?
7. Explain what type of pathways are photosynthesis and cellular respiration.
8. In photosynthesis, what are the reactants and what are the products? **BONUS**: Write out the chemical reaction.
9. **Type II:** Compare and contrast autotrophs and heterotrophs in a minimum of 5 sentences. **Underline** the following words when used: chemoautotrophs, photoautotrophs, energy.
10. What is the MAIN Idea for section 1 of chapter 8?
11. ATP is a molecule made of what components?
12. **Type II**: Explain in detail how and what is occurring when ATP becomes ADP and when ADP becomes ATP. **Underline** the following words when used: release energy, energy stored, bond, broken, phosphate.
13. What actually happens to the “lost” energy?
14. Describe the 2nd law of thermodynamics in detail.
15. What is the BIG Idea for chapter 8?
16. Where does all the energy for life come from?

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