Review of Photosynthesis and Cellular Respiration

1. Which molecule supplies energy for cellular functions and activities?
2. What is another name for ATP?
3. What happens when ATP loses a phosphate group? (Think about what is released in the process?)
4. Which gas is used by green plants in the process of photosynthesis?
5. Which large molecule (produced by plants) is broken down in the body to make energy?
6. Which pigment molecule (found in chloroplasts) captures radiant energy from the sun and turns it into chemical energy (sugar)?
7. There are 2 stages of photosynthesis. Which stage uses light energy (sun) and water to produce oxygen?
8. There are 2 stages of photosynthesis Which stage uses 6 molecules of carbon dioxide to produce the 6 carbon sugar glucose?
9. Plants make (or manufacture) food in a process called\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. In the process of photosynthesis, light energy is used to split water into hydrogen and oxygen. What molecule is produced when the hydrogen combines with carbon dioxide? (Think about what the plant produces)
11. Where in the plant does photosynthesis take place?
12. The process of cell respiration takes place in both plants and animals inside an organelle called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. (hint: it is the powerhouse of the cell because it produces energy)
13. Write the formula for cell respiration.
14. Identify the reactants of cell respiration.
15. Identify the products of cell respiration.
16. Which process, cell respiration or photosynthesis, adds carbon dioxide to the atmosphere?
17. What is the name of the process called when plants lose water from their stomata? (hint: in humans, a similar process is called perspiration)
18. Describe chemosynthesis. Where does it take place? Which organisms carry out chemosynthesis?