

Photosynthesis and Respiration

Name _____

1. When your body breaks down food for energy, when it uses enzymes to build new molecules or break apart others, these chemical reactions are all called _____

2. Let's say you wanted to cut a board into two pieces. You would probably use a saw. After the wood was cut, the original board would have changed into two smaller pieces, but the saw would remain unchanged. If the board represents a large molecule and the two small pieces of wood represent small molecules, what would the saw represent in this chemical reaction?

3. What are the two raw materials that are needed to produce sugar in photosynthesis?

4. What is the by-product of photosynthesis that is used by organisms for respiration?

5. There is energy stored in the sugar contained in milk. Trace the flow of energy from the sun to the milk. Include the chemical reactions that result in energy changes.

6. How is excess sugar stored in plants?

7. Chlorophyll is the green plant pigment that is needed for photosynthesis. Out of red, blue, green, yellow, and purple, which color is not used by chlorophyll? _____
How do you know?

8. During respiration, glucose (sugar) is broken down into two waste products, _____ and _____. In addition, _____ is produced which organisms use for (*list two things*).

9. On the back, there is a Venn diagram. Use it to compare and contrast photosynthesis and respiration.

