

Name:

Date:

Period:

Photosynthesis Scavenger Hunt

Directions: Using your Biology book, answer the following questions from the Chapter 8. Good Luck! 😊

1. Energy is the ability to do work. Without the ability to obtain _____, life would _____ to exist.
2. What are autotrophs? _____
3. What are heterotrophs? _____
4. One of the principal chemical compounds that living things use to store energy is _____, abbreviated as _____.
5. The energy stored in ATP is released when it is converted into ADP and a phosphate group. Name one way that cells use the energy provided by ATP. (Pick one that makes the most sense to you.)

6. What is photosynthesis? _____

Use page 229 to study the experiments performed by scientists who contributed to our understanding of photosynthesis.

7. Van Helmont, Priestly, Ingenhousz, and other scientists revealed that in the presence of light, plants transform _____ and _____ into carbohydrates and release oxygen. (hint: these are the inputs into photosynthesis)
8. Plants gather the sun's energy with light absorbing molecules called _____.
9. The plant's principle pigment is _____.
10. Welcome to the Chloroplast! Observe Figure 8-5. What are thylakoids? _____

11. Light-dependent reactions require _____.
12. Use page 233 and figure 8-7. The light-dependent reactions produce oxygen gas and convert _____ and _____ into the energy carriers _____ and _____.
13. What is the Calvin Cycle? And where does it take place? _____
14. What is the final product of photosynthesis? _____
15. How is the sun the ultimate source of energy on Earth? (hint: sun-plants-animals) _____

Chapter Vocabulary Review

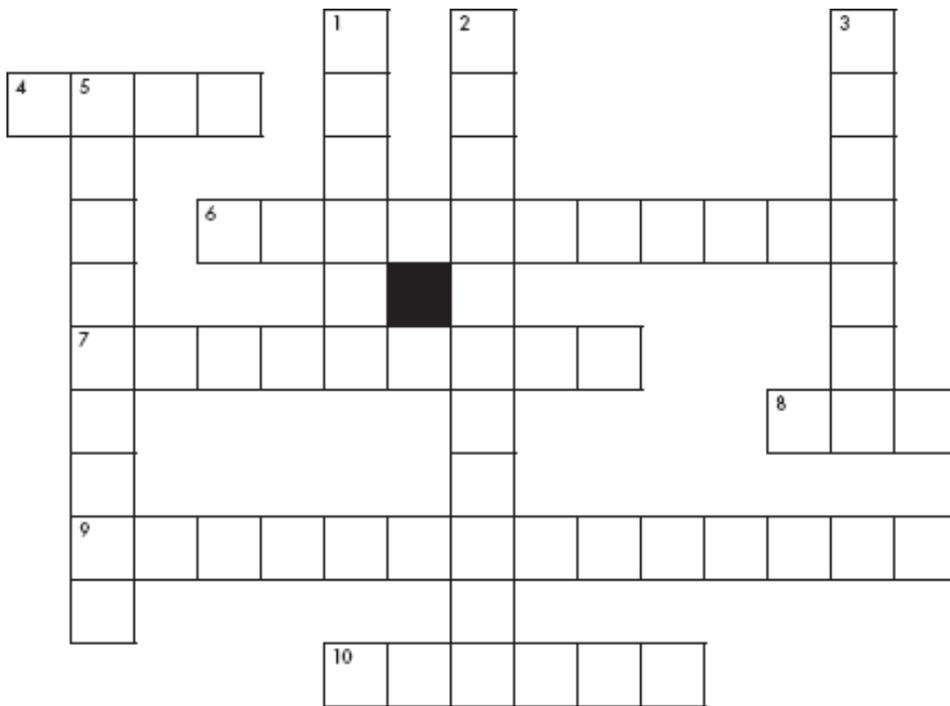
Crossword Puzzle Complete the puzzle by entering the term that matches the description.

Across

- 4. energy carrier cells use to transport high-energy electrons
- 6. cluster of pigments and proteins that absorbs light
- 7. a saclike photosynthetic membrane found in chloroplasts
- 8. energy carrier made as a result of photosystem II
- 9. process of using the sun’s energy to make food
- 10. man who worked out the light-independent reactions

Down

- 1. liquid part of the inside of a chloroplast
- 2. chemical that absorbs light for photosynthesis
- 3. light-absorbing chemical
- 5. organism that makes its own food



For Questions 11–16, complete each statement by writing the correct word or words.

- 11. The light-_____ reactions occur in thylakoid membranes.
- 12. Carbon dioxide is used to make sugars in the light-_____ reactions.
- 13. The light-independent reactions are also called the _____.
- 14. _____ spins to provide the energy for adding a phosphate group to ADP.
- 15. Electron _____ move high-energy electrons between photosystems.
- 16. An animal that obtains food by eating other organisms is called a(n)_____.