Name_____ Class _____ Date _____

8.2 Photosynthesis: An Overview

Chlorophyll and Chloroplasts

For Questions 1–6, complete each statement by writing the correct word or words.

1. The _____ of light determines its color.

2. Chemicals that absorb light are called _____.

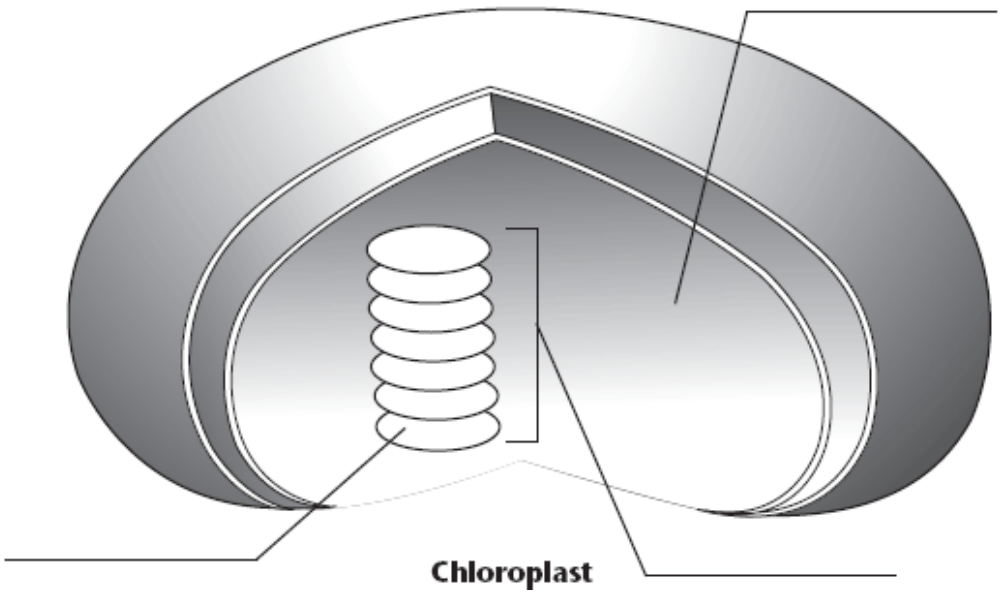
3. Chlorophyll makes plants look green because it _____ green light.

4. Chloroplasts contain an abundance of saclike photosynthetic membranes called _____.

5. The _____ is the fluid portion of the chloroplast located outside the thylakoids.

6. The visible light absorbed by chlorophyll _____ the energy level of the chlorophyll's electrons.

7. **THINK VISUALLY** Label the internal parts of the chloroplast below.



High-Energy Electrons

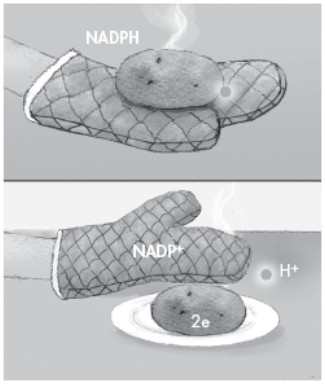
For Questions 8–9, refer to the Visual Analogy comparing electron carriers to oven mitts.

8. **VISUAL ANALOG** In the visual analogy of carrying electrons, what represents the high-energy electrons?

_____

_____

_____



9. Write another analogy that describes the process of electron carriers.

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10. Where do the high-energy electrons carried by NADPH come from?

_____

_____

An Overview of Photosynthesis

For Questions 11–13, write the letter of the correct answer on the line at the left.

_____ **11.** What are the reactants of the photosynthesis reaction?

A. chlorophyll and light
B. carbon dioxide and water
C. carbohydrates and oxygen
D. high-energy electrons and air

_____ **12.** What are the products of the light-dependent reactions?

A. chloroplasts and light
B. proteins and lipids
C. oxygen and ATP
D. water and sugars

_____ **13.** Where do the light-independent reactions occur?

A. stroma
B. thylakoids
C. chlorophyll
D. mitochondria

14. Solar power uses cells or panels to absorb the sun's energy. That energy is then used to create electricity. How does this compare to the light dependent reactions of photosynthesis?

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