Name _____ Date _____ Class _____

Section 8–2 Photosynthesis: An Overview (pages 204–207)

This section describes what important experiments revealed about how plants grow. It also introduces the overall equation for photosynthesis and explains the roles light and chlorophyll have in the process.

Introduction (page 204)

1. What occurs in the process of photosynthesis? _____

_____

_____

Investigating Photosynthesis (pages 204–206)

2. What did Jan van Helmont conclude from his experiment? _____

_____

_____

3. Circle the letter of the substance produced by the mint plant in Joseph Priestley's experiment.

a. carbon dioxide **b.** water **c.** air **d.** oxygen

4. What did Jan Ingenhousz show? _____

_____

_____

The Photosynthesis Equation (page 206)

5. Write the overall equation for photosynthesis using words.

_____

6. Write the overall equation for photosynthesis using chemical formulas. _____

7. Photosynthesis uses the energy of sunlight to convert water and carbon dioxide into oxygen and high-energy _____.

Light and Pigments (page 207)

8. What does photosynthesis require in addition to water and carbon dioxide?

_____

_____

9. Plants gather the sun's energy with light-absorbing molecules called _____.

10. What is the principal pigment of plants? _____

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11. Circle the letters of the regions of the visible spectrum in which chlorophyll absorbs light very well.

a. blue-violet region

b. green region

c. red region

d. yellow region

Reading Skill Practice

By looking at illustrations in textbooks, you can help yourself remember better what you have read. Look carefully at Figure 8–4 on page 206. What important ideas does this illustration communicate? Do your work on a separate sheet of paper.