Name _____ Class _____ Date _____

Section 18.4 Color

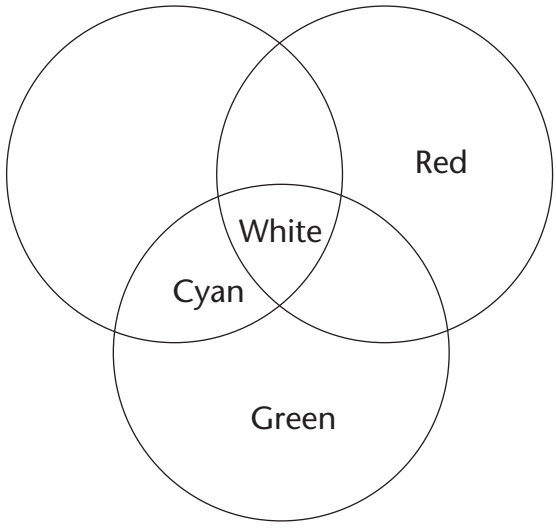
(pages 550–553)

This section explains how a prism separates white light. It also discusses factors that influence the various properties of color.

Reading Strategy (page 550)

Venn Diagram As you read, label the Venn diagram for mixing primary colors of light. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

Mixing Colors of Light



Separating White Light Into Colors (page 551)

1. Use the words in the box to fill in the blanks.

reflect	separate
refract	intensify

When white light passes through a prism, shorter wavelengths _____ more than longer wavelengths, and the colors _____.

2. Circle the letter of the process in which white light is separated into the colors of the rainbow.

a. reflection
b. dispersion
c. absorption

3. When a rainbow forms, what acts as the prism and what is the light source? _____

The Colors of Objects (pages 551–552)

4. Circle the letter of the factors that determine the color of an object seen by reflected light.

a. what the object is made of
b. the color of light that strikes the object
c. the way the eye works

5. Is the following sentence true or false? I see a red car in sunlight because the color of light reaching my eyes is mostly red light.

_____

Mixing Colors of Light (page 552)

Match the colors of light with the correct type of color.

Type of Color	Colors of Light
_____ **6.** primary colors	a. Cyan, yellow, and magenta
_____ **7.** secondary colors	b. Blue and yellow
_____ **8.** complementary colors	c. Red, green and blue

Match each color of light to its definition.

Type of Color	Definition
_____ **9.** primary colors	a. Formed when two primary colors combine
_____ **10.** secondary colors	b. Combine in varying amounts to form all possible colors
_____ **11.** complementary colors	c. Combine to form white light

Mixing Pigments (page 553)

12. What is a pigment? _____

_____

Match the primary colors of pigment to the color they produce when combined.

Primary Colors	Color Produced
_____ **13.** Cyan and magenta	a. green
_____ **14.** Cyan and yellow	b. red
_____ **15.** Yellow and magenta	c. blue