NAME DATE CLASS

Chapter 20

STUDY GUIDE

Use with Text Pages 558–563

The Optics of Mirrors

Use the terms in the list below to fill in the blanks in the paragraphs about mirrors.

reversed	smooth	eyes	concave	focal	smaller
reflect	behind	ray	convex	optical	upside down
virtual	plane	length	real	spread	upright

Mirrors can be formed by almost any _____ surface. Flat mirrors made from glass with a reflective coating on the back surface are called _____ mirrors. To see your face in a mirror, light has to _____ off your face. This light goes to the mirror and is reflected toward your _____ . The image you see will be _____ from left to right. To explain this requires the use of a _____ model. The image will appear to come from _____ the mirror. Since there is nothing behind the mirror, this image is called a _____ image.

Mirrors that have a curve like the bowl of a spoon are called _____ mirrors. A straight line going through the center of a mirror is called the _____ axis. Beams of light parallel to this axis will strike a concave mirror and be reflected to pass through a point on the optical axis called the _____ point. The distance from the center of the mirror to the focal point is called the focal _____ . When a concave mirror is used to reflect light from an object that is placed farther from the mirror than the focal point, the image formed will be a _____ image. The image will be enlarged and _____ . If the object is placed between the focal point and the mirror, an image is seen that is enlarged in size, _____ , and seems to be _____ the mirror. Because the image appears to be behind the mirror, it cannot be projected onto a screen like a real image and is therefore called a _____ image.

A type of mirror like the back of a spoon is called a _____ mirror. The rays that are reflected from this mirror are always _____ out. When this happens, the image will appear to be behind the mirror and be upright but _____ than the original object.