

CONCEPT REVIEW
16

LIGHT WAVES AND REFLECTION

PAGES 106 TO 110

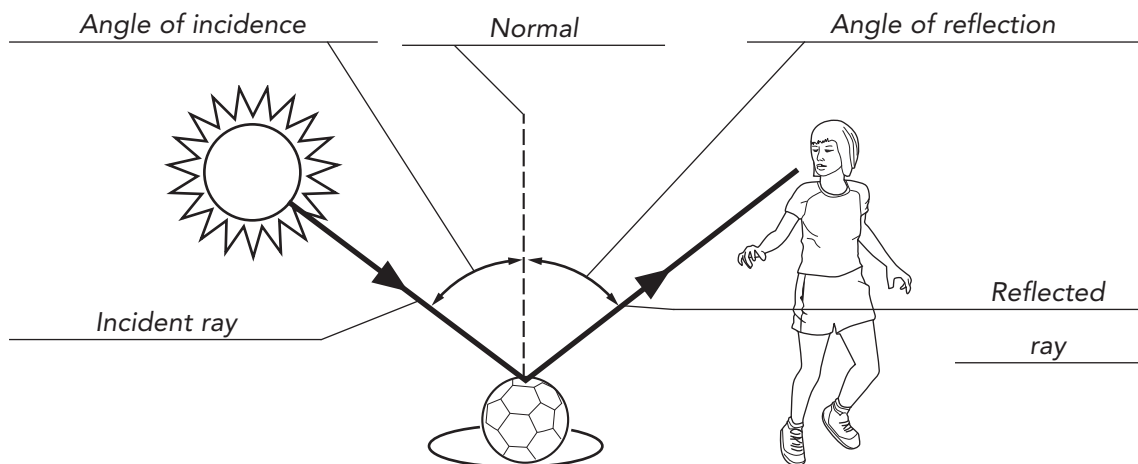
Complete this concept review handout and keep it as a record of what you have learned.

DEFINITIONS

- Light is an electromagnetic wave that is visible to the human eye.
- Reflection is the rebounding of light that occurs when a light ray hits a different medium and "bounces back" to the medium from which it came.
- The incident ray is the ray that contacts the surface of an object.
- The reflected ray is the ray that rebounds.
- The normal is a line perpendicular to the surface at the point of reflection.
- The angle of incidence is the angle formed by the incident ray and the normal.
- The angle of reflection is the angle formed by the reflected ray and the normal.

LAWS OF REFLECTION

- The angle of incidence is always equal to the angle of reflection.
- The incident ray and the reflected ray are always _____ on the same plane.



TYPES OF REFLECTION

Reflection	Behaviour of light rays	Image formation (yes or no)
Diffuse	Parallel light waves are reflected _____ <i>in all directions.</i>	No
<u>Specular</u>	<u>When parallel light waves contact a smooth surface their reflections are parallel.</u>	Yes

CHARACTERISTICS OF A REFLECTED IMAGE IN A PLANE MIRROR

- The image appears to be behind the mirror, at a distance equal to the distance between the mirror and the reflected object.
- The image is virtual.
- The image is the same size as the object.
- The image is horizontally inverted.

© ERPI Reproduction permitted solely for classroom use with Observatory