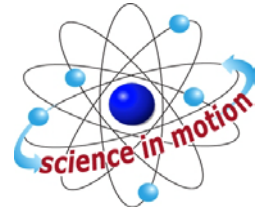


# REFLECTION, DIFFRACTION, REFRACTION INTRODUCTION



Westminster College

The activities in this kit are designed to help you explore a number of ideas and terms related to light. Specifically, you will be learning about some wave-like behaviors of light—reflection, refraction, diffraction, and wavelength which we observe as color.

Light waves are able to move through some materials, such as air and glass. If the light passes through and allows you to see an image beyond, as through a window, the material is transparent. If light passes through but images do not, the material is translucent. Materials that do not allow light to pass through at all are called opaque.

Sometimes light will bounce off a surface much the way a ball bounces off a wall. This is called reflection and is what a mirror does to light. Reflection has much to do with what color and how shiny an opaque material is.

Light is made up of many tiny bits of energy with different wavelengths. Your eye sees these different wavelengths as different colors. For example, if green light is reflecting off an object and other colors are being absorbed, your eye will see the object as green. The longest waves your eye sees are red colors and the shortest waves are violet. There are longer waves that are invisible to you such as radio waves, and waves too short for your eye to see such as x-rays. Each different color you see is a different wavelength or combination of wavelengths.