
LIGHT AND COLOR

Background

Sunlight is made of different waves of light, and each wave has its own length and color. We can separate light into a band of color called the *color spectrum*. The activities in this section let your class experiment with the basic color concepts, the color spectrum, and the primary colors of light.

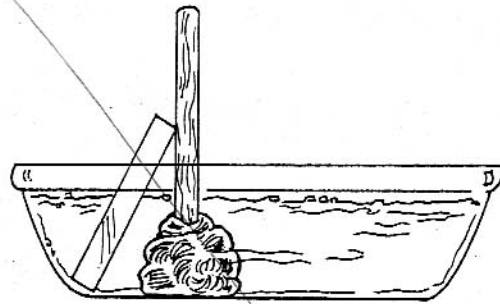
COLOR SPECTRUM

Purpose

- To make and use a prism to separate the different waves of sunlight into the color spectrum.

Materials

Clear, shallow glass baking dish
Mirror that is same width as dish
Modeling clay
Water
Dowel or stick longer than mirror is tall



Activity

1. Fill the dish with water and set it in a sunny area of your classroom. Hold the mirror in the water at an angle, making a triangular wedge of water. When the water surface has become still, gently move the mirror back and forth until you see a rainbow on the wall. If you don't have enough sunlight hitting the mirror, shine a flashlight on the portion of the mirror that is under water.
2. When you see the rainbow, fix the mirror into place with the stick and modeling clay. Simply position the dowel behind the mirror, and use the modeling clay to keep the dowel in place. See the illustration above.
3. Tell the students to observe the rainbow and to name the colors they see. Can they see the seven wavelengths: red, orange, yellow, green, blue, indigo, and violet? The colors in the spectrum always appear in this order because the wavelengths are consistent.