

Make a Rainbow

Materials

- A small mirror
- A flashlight
- A shallow bowl
- A darkened room
- (optional: a mathematical protractor, used to draw angles)

Procedure

1. Fill the bowl mostly full with water.
2. Have one person hold the mirror in the water at approximately a 30 degree angle to the bottom of the bowl (use a protractor to determine the angle if you wish).
3. Darken the room and shine the flashlight at the mirror. Look for a rainbow! If you don't see one, try tilting the mirror and/or the flashlight until the rainbow appears.

The water in the bowl acts like a prism, separating the white light from the flashlight into the colors of the rainbow. A similar effect can be achieved by spraying a water hose in an arc on a very sunny day, moving the spray slowly around you until you reach the right angle to see the rainbow.

