

CREATE A RAINBOW

WHAT IS A RAINBOW?

A rainbow is a multicolored arc made by light striking water droplets. Rainbows are made up of seven colors - red, orange, yellow, green, blue, indigo and violet.

WHAT YOU'LL NEED

- Glass of water (about $\frac{3}{4}$ full)
- Spray bottle
- Sunlight
- White paper

WHAT TO DO

1. Take the glass of water and paper to a part of the room with sunlight (near a window is good).
2. Put the piece of paper on the floor where the sunlight hits through the glass.
3. Spray the window with warm water where the sun is coming through and so it lines up with the paper.
4. Hold the glass of water above the paper and watch as sunlight passes through the glass of water, refracts (bends) and forms a rainbow of colors on your sheet of paper.
5. Try holding the glass of water at different heights and angles to see if it has a different effect.

HOW DOES IT WORK?

While you normally see a rainbow as an arc of color in the sky, they can also form in other situations. You may have seen a rainbow in a water fountain or in the mist of a waterfall. You can even make your own, such as you did in this experiment.

Rainbows form in the sky when sunlight refracts (bends) as it passes through raindrops. It acts in the same way when it passes through your glass of water. The sunlight refracts, separating it into the seven colors of the rainbow.

