

# Rainbows

Do you feel lucky?  
Then, at the end of a rainfall,  
you might see a rainbow. Mist, spray, and  
dew can also create a rainbow effect near  
waterfalls, fountains, or anyplace water is spraying  
in sunlight. Have fun with these rainbow projects.

## Create a Rainbow

### Inside

Completely fill a glass with water and set it on a sunny windowsill. Put a white sheet of paper on the floor, where the sun streaming through the glass casts its light. The glass of water acts as a prism, creating a rainbow.

### Outside

Set a garden hose nozzle to a fine mist. Stand with your back to the sun, hold the hose up, and look at the spray. Do you see a rainbow as the sun strikes the water droplets? Tip: This works best in early morning and late afternoon.

ready,  
set,  
Go Outside!

#### Skills Learned:

*Observation and comparison:* color and shapes, and physical properties of light

*Experimentation:* measurement, forming and testing hypotheses, and comparing results

*Creative expression:* vocabulary and creating a myth

*Critical thinking:* problem solving

## Magical Myths

In Amazonian cultures, some believe they should close their mouths when they see a rainbow to prevent bad spirits from entering their bodies. And well-known Irish folklore tells of leprechauns hiding their pots of gold at the end of a rainbow. Why?

When one walks toward the end of a rainbow, the pot appears to move farther away! Now make up your own rainbow myth.



## Psst! Get the Cool Science Behind Rainbows

We tend to see the sun as yellow, but sunlight is actually made up of every color in the rainbow—red, orange, yellow, green, blue, indigo, and violet. After a rainstorm, and if it's still raining somewhere in the sky, the sunlight will be **refracted** (bent) and **reflected** (bounced back) by the raindrops. The drops of water act like tiny prisms, breaking up the sunlight into all its colors and displaying a rainbow.

### Did You Know?

Seven colors appear in every rainbow, but we usually see only four or five colors clearly because they blend together. In single rainbows, red is always on the outside of the arch and violet is on the inside.

## ONLINE BONUS!

Learn more at  
[www.massaudubon.org/go](http://www.massaudubon.org/go)

- ▶ Experiment with bubble rainbows
- ▶ Recipes for bubbles
- ▶ Fun facts about moonbows and sea-dog rainbows