

# What is a Rainbow?

Hey there! Have you ever seen a beautiful rainbow in the sky? A rainbow looks like a big, colorful arc made of seven colors. It's such a pretty sight!

## How Do Rainbows Happen?

Let's think about how a rainbow appears. Imagine this: it's raining, and then suddenly, the sun comes out! When the sun shines through the raindrops, something magical happens!

### Step 1: Light and Raindrops

First, sunlight is made up of many colors that we can't always see. When the light hits a raindrop, it starts to bend (we call this **refraction**) and spread into these colors. This is something similar to light bending when you use a prism!

### Step 2: The Colors

Next, the light bounces off the inside of the raindrop. This makes the colors spread out even more. The colors that come from this are red, orange, yellow, green, blue, indigo, and violet. You can remember them as R.O.Y.G.B.I.V.

### Step 3: Seeing the Rainbow

When all those colors come out of the raindrop, we see this beautiful arc in the sky! But remember, to see a rainbow, you have to be standing with your back toward the sun and facing the rain.

### Fun Fact

Did you know that if you could get to the end of a rainbow, there would be a pot of gold waiting for you? That's what the stories say!

### Let's Make a Rainbow!

You can make your own rainbow at home! Just take a glass of water and shine a flashlight through it onto a wall. You might see a little rainbow appear! How cool is that?

Now you know how rainbows pop up in the sky after it rains. Isn't nature amazing?