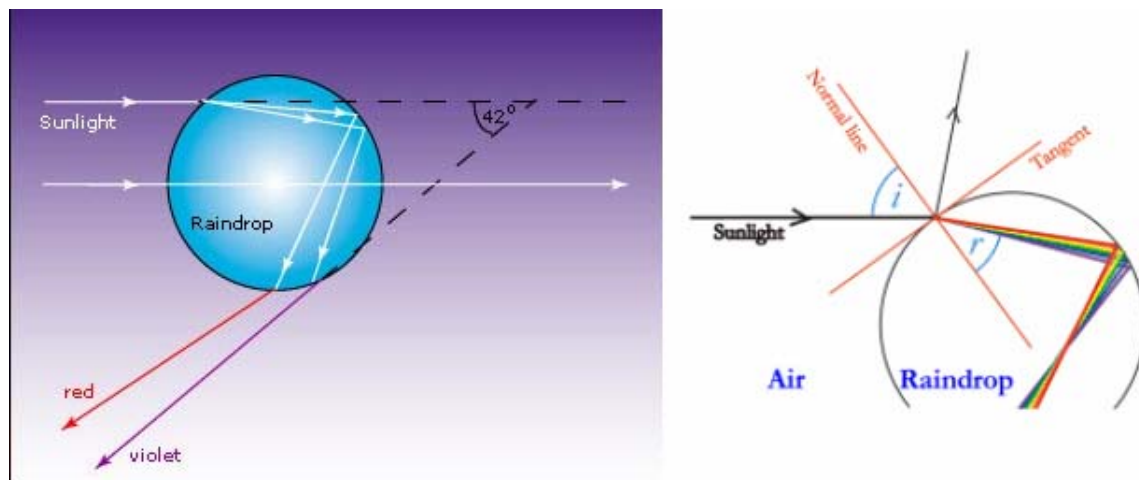


How is the Rainbow Formed?



A rainbow is an arc of multi-colored light that appears when the sun shines through the rain.

How is the rainbow formed? Sunlight which appears to be white is actually composed of seven colors. These colors are Violet, Indigo, Blue, Green, Yellow, Orange and Red, abbreviated as VIBGYOR, each letter of this word represents one color. Splitting of sunlight into its constituent colors is known as dispersion and the strip of colors is known as spectrum.

Rainbow is normally seen after the rains, when the atmosphere is full of small water droplets. These spherical raindrops act like tiny prisms. As the rays of the sun fall on these, they (the rays) get refracted as they enter the raindrops, and then get reflected from the far surface of the drop. They get refracted again as they come out of the raindrops. Each component of the rays of the sun gets refracted at a different angle, thus separating out from the others. That is how we get the separation of colors.

The rainbow is circular because the sun is also circular. A complete rainbow has a primary and secondary bow. The primary bow is more brilliant. Its colors are violet on the inside, then indigo, blue, green, yellow, orange and red on the outside. The colors of the dimmer secondary bow are reversed. Red is on the inside and violet is on the outside. The secondary bow is located above the primary bow. This rainbow is formed by those rays which have been reflected and refracted once again after the first reflection and refraction within the rain drops.

How is the Rainbow Formed?

The rainbow is generally seen in the sky opposite the sun. It is essential for the formation of the rainbow that the sun is shining after the rain. It is also essential that the sun, our eyes and the centre of the rainbow lie on the same straight line.

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