

Make a Rainbow

The Science Behind the Experiment - A Guide for Adults

Light travels in waves and is made of a mixture of different colours. As light travels through the water it changes speed and is bent, or refracted. The different colours have different wave lengths and refract by different amounts. This makes the colours split up, or disperse, into a spectrum of the different colours of the rainbow. When it is sunny and rainy, the sunlight enters a raindrop and is refracted and dispersed into the colours of the rainbow. Some of the refracted light is reflected off of the back of the raindrop and refracted again as it comes out. This creates a rainbow, or sometimes a double rainbow.

Science Experiment

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What is a rainbow?

Have you ever seen a rainbow before?

What was the weather like?

Can you see our rainbow?

What colours can you see?

What happens when we turn off the water
or move the glass out of the sun?