

HOW TO MAKE RAINBOWS AT HOME

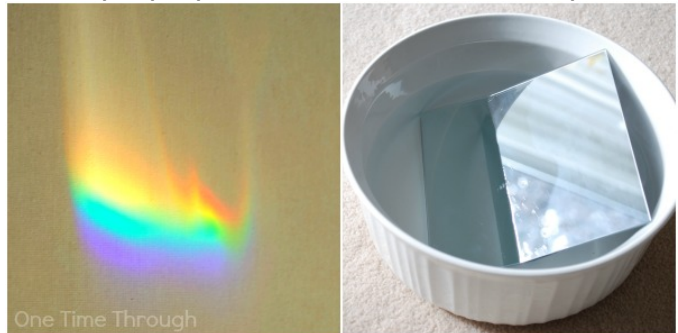
A rainbow appears when the light gets split up into its 7 different colours: red, orange, yellow, green, blue, indigo and violet.

Usually – the reason the light gets split up is because it is passing through a substance that bends the light. The different coloured wavelengths bend in different amounts. Red tends to bend the least, so it appears on the top of the rainbow, while violet bends the most and ends up on the bottom – with all the other colours in between.

When we see a rainbow in the sky, it is usually when the sun is behind us and it is shining through millions of tiny raindrops floating in the sky – all of which are bending the light and projecting the rainbow. This could happen at night with the moon and is called a ‘moonbow’.

1. Fill a large bowl or dish halfway with water and prop up a mirror inside it so that part of the mirror is under the water and part is out.

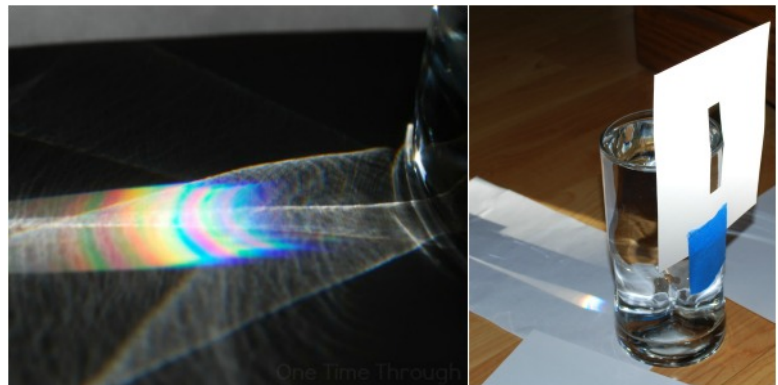
Place the rainbow maker near a sunny window with direct light coming in so that it hits the mirror (early morning or early evening light works best).



Play around with holding a large white piece of paper above the maker to “catch” the rainbow. You might have to move a bit until you find it.

2. When light goes through a glass of water – it also splits into a rainbow.

To get ready – take a piece of paper and cut a slot into the middle of it. Tape this onto the side of a smooth/clear drinking glass so that the sun’s rays can pass through the opening onto SURFACE of the water in the glass.



You will need to do this on a very sunny day (or try a darkened room with a strong direct light source.) Make sure that the glass of water is VERY FULL. Place the glass on a white floor or white piece of paper, making sure the sun’s rays are shining through the slot in your paper and hitting the surface of the water. You should see a mini-rainbow appear below the glass! Have your child describe the colours they see and you can talk about rainbows you have seen in the sky and how they are similar or different.

3. You could also hold a CD up to some sunlight – or shine a flashlight on one in a darkened room – and you will see a rainbow on the CD.