

The Experiment: Light & Refraction

You will need

- A glass of water
- A torch
- A blank piece of paper
- A dark room



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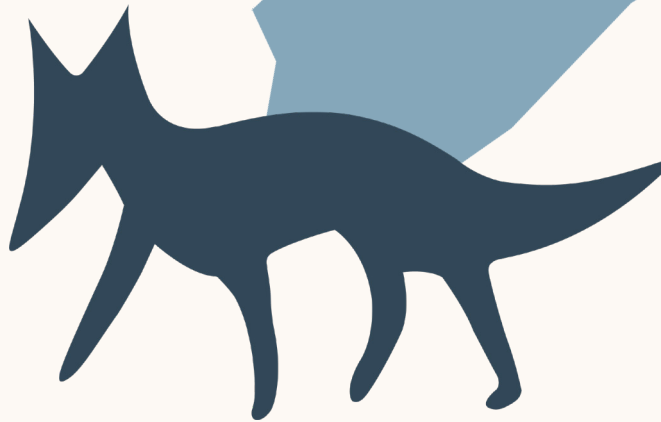
Find a dark room in your house and put your piece of paper on a hard surface. Aim your torch at your piece of paper, what shape does the light create? Think about what you think will happen when you shine your torch through the glass.

2

Place your glass of water in the middle of your piece of paper.

3

Now aim your torch at your glass of water, so that the light shines onto the paper. Has the shape of the light changed? What patterns has it created on the walls of the room?



Instructions

What is happening?

Light travels much slower through water than when it travels through air. So, when we shine our torches through the water the light is slowed down and bent. When the light reaches the other side, it speeds back up and becomes straight again. The process of changing the direction of light is called Refraction. When light passes through the glass it is reflected and refracted which allows us to see it.

More activities

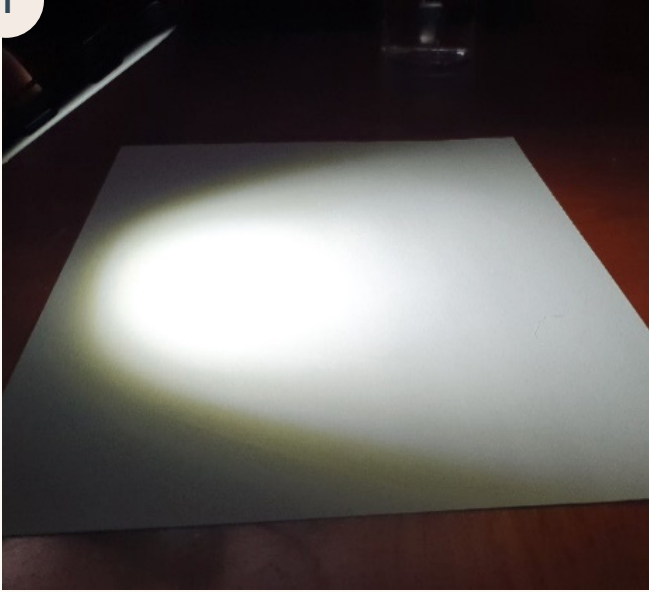
Why not see what happens when you shine your torch through the top of the glass? What patterns do you get when you raise the glass?

Why not see what happens when sunlight shines through your glass, can you find any rainbows?

Why not see what happens when you shine your torch through an empty glass?



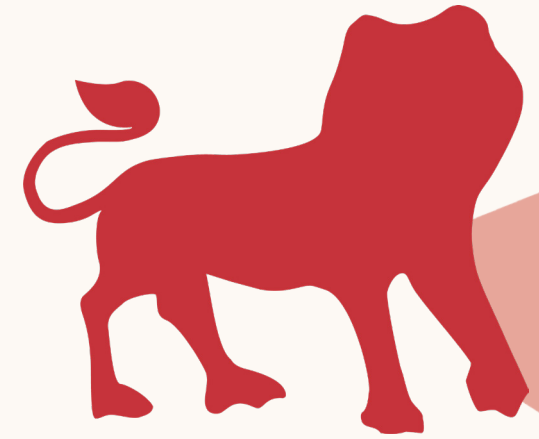
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