

# Refraction

**What happens when you look through a glass of water?**

## Step 1

Fill up a glass with water and draw an arrow on a piece of paper.

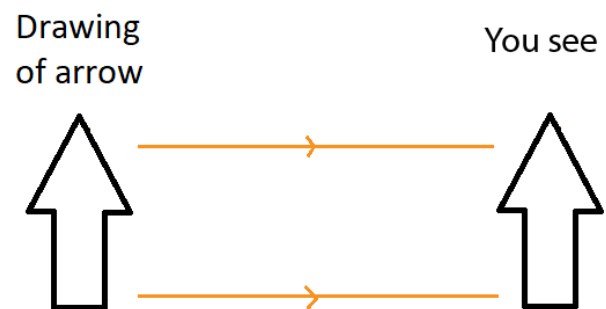
## Step 2

Hold your paper behind the glass and look through the water.

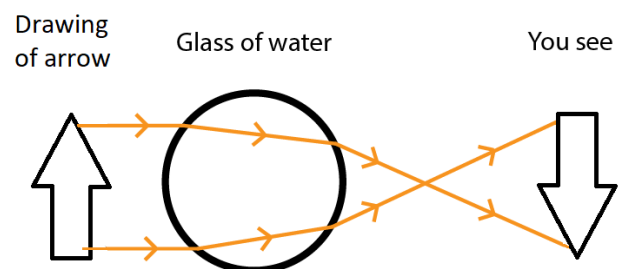
What has happened to your arrow?

**Why do you think your arrow changed direction?**

Light always travels in a straight line. (You could try our camera obscura activity to test this out!) We see objects because light is reflected off them into our eyes. If we look at the drawing of our arrow the light travels directly from the arrow to our eyes.



If we hold the paper behind a glass of water the arrow looks like it is pointing in the opposite direction. This is because the light gets bent, its refracted, when it travels through water. When the light rays leave the glass they cross over each other. Light that was on the left is on the right, so the arrow appears to reverse itself!



**Create your own drawings using different colours and shapes and see what happens! Why not try writing something?**