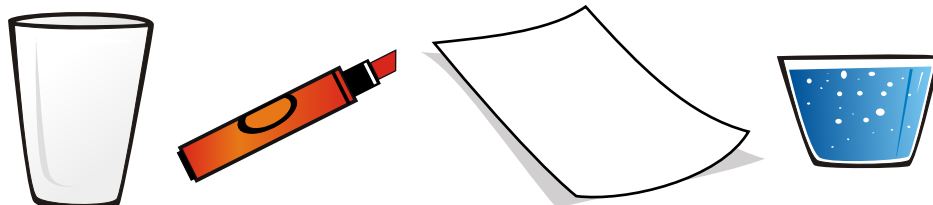


What you need:

- Thick walled drinking glass
- Marker
- Paper
- Water



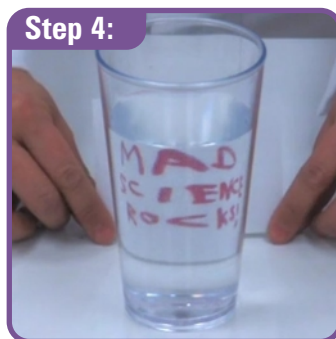
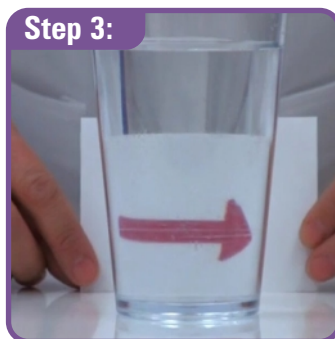
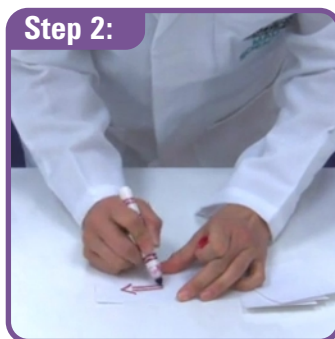
What you do:

Step 1: Fill a drinking glass with water.

Step 2: Use the marker to draw an arrow on the paper. Make sure the arrow is no wider than the glass.

Step 3: Look through the water in the glass. Move the paper behind the glass. What do you notice?

Step 4: Write a backward message on the back of the paper. Move the message behind the glass. What do you read?



What's going on:

The arrow points in the other direction behind the glass! This is because of something called refraction. Refraction refers to the way light rays bend. When light moves from the air to the water and back, it bends. The light rays bend at an angle when they move into the water from the air. The rays cross each other inside the glass. This is why you see a mirror image of your arrow through the glass.

Now try this:

It's time to play with light! Change the distance between your arrow and the glass. Does this make a difference in what you see through the glass? Try this refraction experiment with different shapes!

