

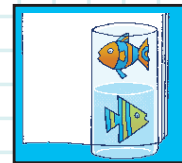
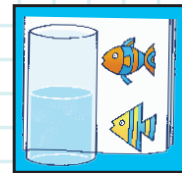
FISHY BUSINESS

You will need:

- A jug of water
- A transparent glass
- A card with two fish on it

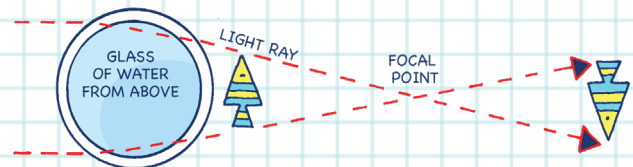
What you do:

1. Prop the card upright and place the glass a short distance (about 8-12cm) in front of the two fish.
2. With your eyes at the same level as the glass, carefully fill it with water from the jug and watch the fish change direction.



You should find:

As the water reaches the height of the bottom fish, it appears to change direction. As you continue to fill the glass, you will see the top fish seem to change direction as well! When light passes through different substances it can bend (scientists use the word refract). The water bends the light so that all light rays cross over and are reversed on the way to your eyes.



UNDER PRESSURE

What you do:

1. Ask an adult to make three holes in the side of the bottle, running in a vertical line along the flat section of the bottle.
2. Cover the holes with a single strip of sticky tape, making sure they are leak proof. Fill the bottle to the brim with water and screw the lid on.
3. Place your bottle on the edge of the bath (or go outside and put it on a low wall or table), then remove the lid and rip off the tape.

You will need:

- A 1-litre clear plastic bottle
- Sticky tape
- Something for punching holes (e.g. a metal skewer or bradawl)

You should find:

The water from the bottom hole travels further than water from the higher up holes. This is because the further down the bottle you go, the more water there is pressing down and pushing the water through the hole. If a few centimetres of water can make so much difference to the pressure, just imagine what the pressure would be like at the bottom of the ocean, under thousands of metres of water!

