

BLOOMING WATER LILY



You will need:

- Scissors
- Plate or bowl filled with water



You should find:

The petals open. Water travels up narrow gaps and tubes by itself. This is called capillary action. Plants use capillary action to draw water up through their stems. Paper is full of tiny gaps between its fibres. The water moves through these gaps by capillary action, making the paper swell. When the swelling reaches the folds in the paper, the petals open out.

What you do:

1. Cut out the two flower shapes.
2. Fold in the petals of the smaller flower and place it in the centre of the bigger one.
3. Fold in the petals of the larger flower.
4. Drop the flower onto the water and watch what happens.

SCUBA DIVER IN A BOTTLE

You will need:

- A large clear plastic bottle
- A paperclip
- A bendy plastic straw
- A pea-sized blob of Plasticine
- Thick foil from a food carton, plastic lid or a foil-backed juice carton
- Scissors



What you do:

1. Cut a piece of foil or plastic into the shape of a diver 6 cm tall but not too wide.
2. Bend the straw and snip through both sides so that the scuba tank is 2 cm high.
3. Slide the straw section onto the paperclip to make the scuba tank. The two ends of the paperclip should be inside the two open ends of the straw.
4. Slide the large loop of the paperclip between the diver's legs so that the open ends of the straw are pointing downwards.
5. Attach a small amount of Plasticine to the diver's feet and put the diver into a glass of water to check that it bobs at the surface.
6. Fill the bottle with water and carefully push the diver into the bottle. Top up to the brim and screw on the lid.
7. Try squeezing and releasing the bottle and watch what happens to your diver!



You should find:

When you squeeze the bottle, your diver sinks to the bottom because you're increasing the pressure inside the bottle. This forces water into the straw and compresses the bubble of air inside it, making the contents of the scuba tank denser. When you release the bottle, the pressure drops and the air bubble can expand as water moves out of the straw. The tank's density decreases, and the diver floats back up.

