



Make a Water Turbine

Watch our accompanying slideshow for visual guidance

What do I need

Empty 2L bottle, scissors, cork, BBQ skewer, String, Weight

What do I do

1. Use an empty 2L plastic bottle.
2. Cut the bottle into 3 pieces: a top section, middle section and bottom section. The bottom section should be around 15cm high. The top section will not be needed for this experiment.
3. Use the middle section to make 8 equal segments which are around 6cm high and 2-3cm wide. These will be the turbine blades.
4. Cut a 'V' section out of the bottom section of the bottle to allow water to flow through.
5. Push a BBQ skewer through the centre of the cork and remove again.
6. Make 8 equally spaced slits lengthways in the cork. It may help to mark the cork with a pen first.
7. Pierce 2 holes on opposite sides of the bottle about 1cm from the rim.
8. Push the skewer through 1 side of the bottle, then through the cork, then through the other side. The skewer should be able to twirl round in the holes.
9. Push the plastic strips (blades) made earlier into the slits in the cork, making sure all blades curve in the same direction.
10. Tie a length of string around the pointed end of the skewer and attach a weight to the end.
11. Set your water turbine on the edge of a table so that the weight can dangle off. Put a small amount of water in the base of the bottle to stabilise it.
12. Pour water directly over your water turbine.
13. Can you lift the weight?