

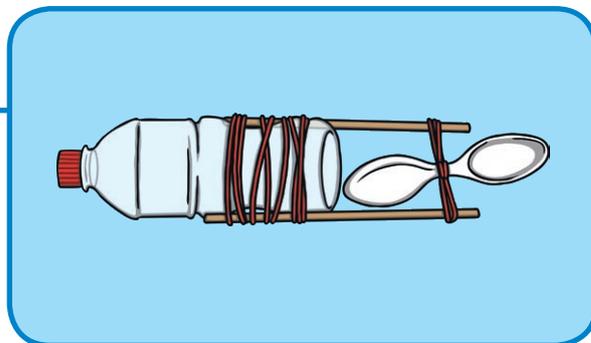
British Science Week

Design a Boat Activity

Sailing on a boat is a good way of making a journey. In this activity, you will make a boat and experiment to find a way to make it travel further by trying different propellers. A propeller is something that spins around to help a boat move through water.

What you will need:

- an empty plastic drinks bottle
- two chopsticks
- lots of elastic bands of different shapes and sizes
- things to make a propeller with – a lollipop stick, medicine spoon, cardboard and anything else you might want to try
- metre stick and chalk to measure how far the boat travels
- a water tray to test the boat in



Instructions:

1. Put the two chopsticks on either side of the bottle. The ends of the chopsticks should stick out further than the bottle. Keep the chopsticks in place by wrapping lots of elastic bands around them and the bottle. You might need to ask a grown-up to help you with this bit.
2. You are going to try a different propeller each time. Put another elastic band around the two ends of the chopsticks. Then put your propeller in the middle between the two chopsticks. Twist the propeller round so the elastic band gets twisted around the propeller. You might need a grown-up to help you with this bit.
3. Holding the propeller still, place your boat in the water.
4. Balance the metre stick on top of the water tray.
5. Let go of the propeller so the boat moves.
6. When the boat stops moving, draw a chalk mark on the metre stick to show how far the boat travelled.
7. Repeat this for each propeller.

Science Experiment

Design a Boat

Which propeller do you think will help the boat travel the furthest? Why do you think this?

Does it matter how many times you twist the elastic band?

Do you think your results would be different if your plastic bottle was a different size?

Explain what happened in the experiment to a friend.

