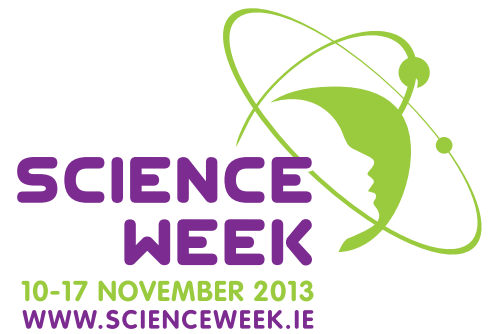


MAKE YOUR OWN PADDLE BOAT



Have you ever driven a paddle boat? If you can ride an exercise bicycle, you can drive a paddle boat. A simple paddle boat is designed for two or four people sitting in an upright position. The boat is moved by turning the pedals (similar to the way you ride a bicycle). As you turn the pedals the paddles under the boat turn and the boat moves. Let's make your own paddle boat.

WHAT YOU NEED

- Plastic drink bottle
- 2 long pencils
- Elastic band
- Plastic tub lid
- Sellotape
- Basin of water



WHAT YOU DO

1. Tape two pencils exactly opposite each other on two sides of the water bottle. The pencils need to extend about 10 cm past the bottom of the bottle.
2. Cut a paddle from the plastic tub lid. Make it 2.5 cm x 5 cm.
3. Loop the rubber band over the end of each pencil.
4. Insert the paddle between the sides of the rubber band.
5. Turn the paddle round and round towards you, to wind the rubber band.
6. Place the boat in the basin of water and release the paddle.

WHAT HAPPENS?

The boat moves forward.

WHY?

When you wind the rubber band you store energy (this is called potential energy) when you let go, this potential energy is changed into motion (moving) energy (this is called kinetic energy) and the boat moves.

FOLLOW UP ACTIVITY

Predict what will happen if you wind the rubber band in the opposite direction?

Now try and see.