

Water Wheel

This is a simple craft activity and experiment that recreates a water wheel using common objects. Water wheels were used often to convert energy from running water into a useful source of power. We will observe the most effective ways of doing this, proving how we can use our natural outdoor resources for good use.

What you will need:

Two sturdy paper plates (or cardboard cut into circles)

Some plastic cups or pots (you could also use paper ones)

A long, thin stick (or two shorter ones selotaped to each other)

Ruler, Pencil, Stapler

A large box or tub and a jug of water



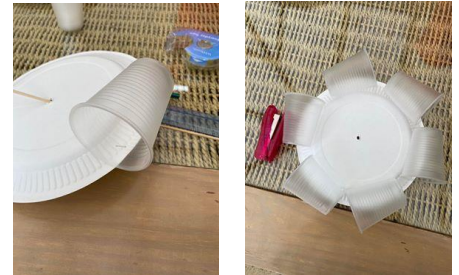
Step 1:

Measure the centre of two paper plates, and make a hole in the centres by poking a pencil through the plates.



Step 2:

Staple the cups to one of the plates so they are all facing the same way and are evenly spread around.



Step 3:

Then staple the other plate to the other side of the cups and put the stick through both of the holes in the plates.



Step 4:

Balance your wheel across the tub width-ways.



Experiment:

Pour the water from the jug over the cups of the wheel, and witness it as it turns. Make a marking on one of the cups with a permanent pen to make it easy to count how many full rotations are made.



Challenges:

- See how many rotations are made with 500ml of water.
- How much water does it take to make 10 rotations?
- Try changing the speed you're pouring it or the height you are pouring it from - does this effect how fast the wheel rotates?
- Race each other to see who can make the wheel do 20 rotations the fastest!