

A windy day at the seaside

Boats and things that float

In the paintings that we looked at in the gallery we saw wooden boats of different sizes but they were all powered by the wind. Boats have been powered by the wind for many thousands of years, they have been used for travel and to transport goods all over the world.

The Challenge

Challenge your pupils to build a boat that can both carry weight and move. Pupils will need to design a boat that can hold the most weight and still be blown.

Using scrap materials, pupils can bring in waterproof and recyclable materials from home. Drinks bottles and cartons work well for this as they are design to be waterproof and can hold various amounts of materials.

It is useful to demonstrate:

- what materials are waterproof
- that boats sit in the water and more weight that goes into the boat the further into the water the boat sinks. The further into the water the boat goes the higher up the sides boat the water goes.
- But too higher sides on a boat can make it top heavy and topple.
- Demonstrate how to fix a sail and mast to the boat.

Rules

1. Pupils will need to make a boat with a sail.
2. It will need to be able to travel across water.
3. It will need to hold weights.

Evaluation

Ask pupils to identify the features of the more successful boats and why they are able to carry weight and travel.

A windy day at the seaside

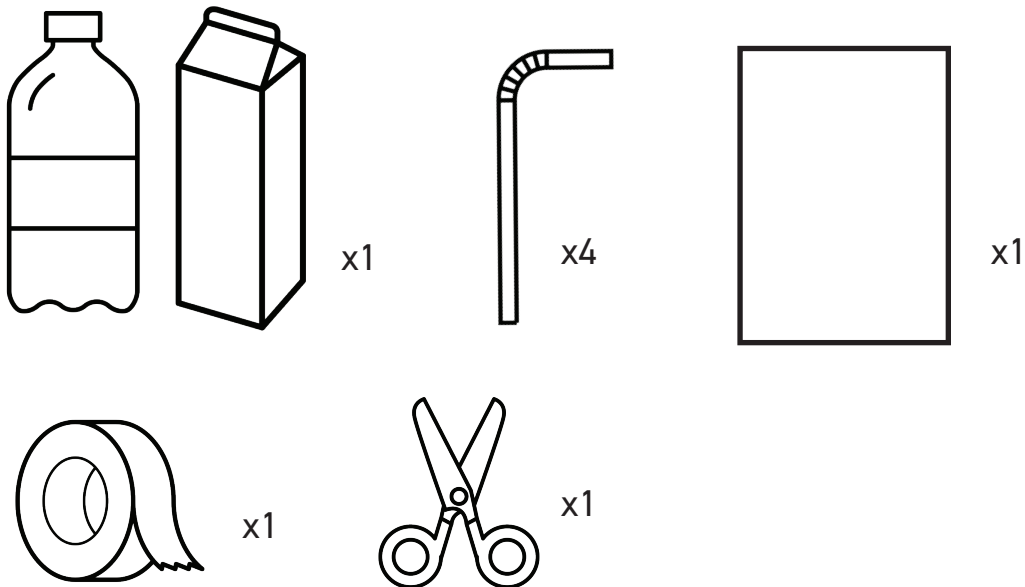
Boats and things that float

Advanced Rules

1. You can introduce different materials, a set distance to travel, the idea of ports where boats have to pick up different items or even obstacles such as wind or rocks to avoid.

Information

1. If you're doing this indoors you can have pupils blow their boat across the water, or use a foot pump, ball pump or balloon pump.
2. Explain to pupils why it is not a good idea to use electrical items such as fans and hair dryers around water.



Materials

Pupils can work individual or in pairs.
Each will need: 1 drinks bottle or carton, 4 paper straws,
1 piece of A4 paper, cello tape, scissors.