



SINKING BOAT INVESTIGATION

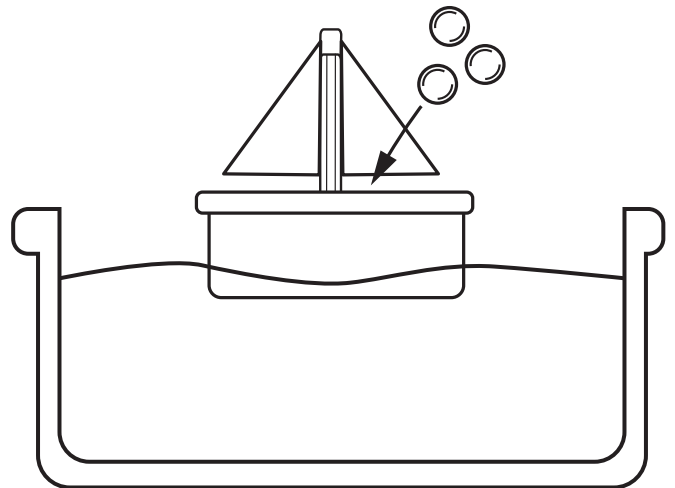
This activity is fun for all ages. If used as a science experiment, it is ideal for KS2 with a focus on the properties of materials. It encourages children to make predictions, make observations, record results and draw conclusions.

You will need

- 💧 A plastic tub or bowl
- 💧 A larger bowl of water
- 💧 Small pebbles - coins or other items also work
- 💧 Items to decorate your boat with, eg, sticks for a mast, paper to make a sail etc
- 💧 Sellotape/Blu Tack to stick your mast inside your boat.

Method

- 1 Take your plastic tub or bowl and decorate.
- 2 Put your boat inside the larger bowl of water and observe how it floats. You could ask the children why it floats? What would make our boat sink? What other items do they know that sink/float?
- 3 Explain that we are going to see how many pebbles/pennies/other small items it will take to make our boat sink.
- 4 Ask the children to make predictions at this point.
- 5 Put in your pebbles one by one. The children could record the amount using a tally chart.
- 6 Once their boats have sunk, the children can conclude what happened using the amount of pebbles they recorded to help them.



The science

The **density** of an object determines whether it will float or sink in another substance. If an object is less dense than the liquid it is placed in, it will float. An object will sink if it is denser than the liquid it is placed in. As the bowl is less dense than the water, it floats. Once the children add their pebbles or small objects, they change the density of the boat and cause it to sink.



Extension

You could repeat the experiment again and see if the children can make their boats stronger. They could even have a competition in pairs to see who can sink their partner's boat first.

Children can change the items that they add to their boats to see if this makes them sink, eg, using corks, bark, Lego blocks, tablespoons of sand etc. To develop children's weighing skills, they could weigh and record the amount of their chosen object to see what amount makes it sink.

Before you tidy away, you can also talk about what you can do with the water after the experiment. Rather than tipping it down the drain and wasting it, can your children think of other ways to use it? For example, watering some plants or using the water in an art lesson. You can talk about why it isn't safe to drink it and about why it's important to save water. You can find out more about water conservation and its importance on our website www.wessexwater.co.uk

You can also have a look at our education page to find more fun resources and investigations
www.wessexwater.co.uk/community/education

Tally chart

	Tally
Number of pebbles counted	

