











Subject: Materials	Week: 2						
Class: Com EOI	Teacher: L Dunkerley						
<p>Learning Outcomes:</p> <p>Worksheet Floating and Sinking To be able to sort and group materials in different ways. To be able to explore floating and sinking. To be able to use some of the correct vocabulary for properties of materials.</p> <p>Practical</p> <p>Soap Boats</p>							
<p>Activities:</p> <p>I have put the work on showbie, an app on the iPad- to access this</p> <p>Go into Com EOI you need the code L9QJZ to get access to the work it means I can mark the work when the students have completed it.</p> <p>Worksheet Floating and Sinking -Find different items and fill in the table about their properties.</p> <p>Practical Try to make Soap Boats that move card works a bit better than paper as the paper gets too soggy.</p> <p>For a daily science lesson at 11am try YouTube and Maddie Moate</p> <p>https://www.youtube.com/user/maddiemoate/featured</p>							
<p>Evaluation:</p> <div style="display: flex; align-items: center;">  <table style="border: none;"> <tr> <td style="padding-right: 20px;">I can't do it yet</td> <td style="text-align: center;">✓ </td> </tr> <tr> <td>I can nearly do it</td> <td style="text-align: center;"></td> </tr> <tr> <td>I can do it</td> <td style="text-align: center;"></td> </tr> </table> </div>		I can't do it yet	✓ 	I can nearly do it		I can do it	
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I can nearly do it							
I can do it							

Floating and Sinking

You will have done some experiments about floating and sinking at school.

You may remember the answers to some of these questions.
Do some experiments at home so that you can answer them all.

You may like to do the experiments in a sink, basin, bowl (it doesn't have to be very big) or when taking a bath. If the weather is good it may be a good idea to do them outside.

Wherever you decide to work, make sure that you leave the area tidy and mop up any spills of water!

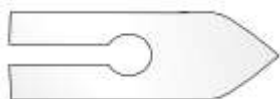
- 1** Make up a table of objects which float and objects which sink.
(Record the material the object is made of, e.g. wooden brick, metal coin.)
- 2** Try to push some floating objects under water. What happens?
- 3** If the objects now sink, why is this? What has happened?
- 4** If the objects won't sink, why do you think they come to the surface? What does it feel like when you try to push them under?
- 5** What happens to the water level in the bowl when objects sink?
(You will not be able to see any change in a large container such as the bath – unless the object is also large – such as a person for example!)
- 6** What happens to the water level in the bowl when objects float?

Floating and Sinking

What is the object made of?	Does it float or sink?	What happens If I push it under the water?

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Experiments/Soap powered boat



Simple Steps

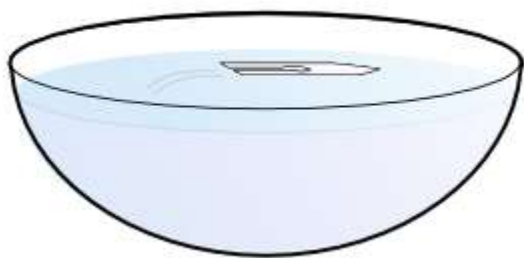
Make a boat (flat as in the one shown in the picture above). Make sure to not to make the slit too big.

Cut a small piece of a bar of soap (enough to fit in the slit shown in the picture above).

Place the piece of soap in the slit of your boat.

Now, get a large bowl of water (or anything that collects water that has a large space for your boat to move around). (Use ordinary water).

Place your boat on the surface of the water and watch your boat move itself forward!



What causes this?

Water is made up of tiny particles smaller than dust called molecules. These molecules are really close to each other at the water's surface and so cause a sort of tension. (You see this tension when insects or leaves float on the surface of the water. This tension looks like if the water is covered with a clear plastic).

When the soap touches the surface of the water, it breaks this tension by moving the molecules away from each other. This causes large spaces between the molecules near the soap.

Water molecules from under the water's surface rush upwards to fill the spaces to recreate the tension. This causes a push from the area of the boat where the soap is. Since the soap is at the back of your boat, it causes a push from there (like someone pushing a car from the back).