



HANDS-ON EXPERIMENTS

FLOTATION

The ExpeditionSevern team are all wearing flotation jackets to help them in case they fall into the river. The materials that make up these jackets have to be **low density** so that they will float in water. Objects that have a density the same or higher than water will sink.

The density of river water is not the same everywhere though. Sea-water and freshwater are actually of different densities because of the salt content in them. In this experiment, we'll try to quantify what difference this makes.



The Experiment

What you'll need: A large glass or beaker, water, an egg, salt, bunsen burner, thermometer

1

Pour water into the glass until it is about half full.

2

Stir in lots of salt (about 100g, or six large tablespoons).

3

Carefully pour in more water until the glass is nearly full (be careful to not disturb or mix the salty water with the plain water).

4

Gently lower the egg into the water and watch what happens

5

The egg will sink through the water until it reaches the salt/water mix. It'll look like it's floating in the middle of the glass!

Further Investigation

- Try the experiment again but this time change the amount of salt and test how much salt you need to make the egg float.
- Does the water temperature affect this? Use the bunsen burner to raise the temperature and see what happens.

VIDEOS FOR THIS RESOURCE AT:

INTRODUCTION:



Clickable Link:

<https://youtu.be/BCtuldUOBY8>

CONCLUSION:



Clickable Link:

<https://youtu.be/MUL5Dc4nouk>

