

# The Mysterious Floating Egg

There's something magical about this experiment. You'll have to have a go and try it to believe it's not been faked! Luckily, you'll almost certainly have everything you need waiting for you in your kitchen.

## What do I need:

- Egg
- Clear glass
- Salt
- Teaspoon

## How do I do it?

**STEP 1** - Half fill your glass with water and gently lower the egg in.

**WARNING:** It will sink so be careful otherwise you'll be needing another egg! So now we know that the egg sinks, take it back out again (use your teaspoon to scoop it back out).

**STEP 2** - Half fill your glass with water and add around 10 teaspoons of salt to it. Don't worry, you can't add 'too much' salt as we're making a 'saturated solution' - that really just means that the water is 'full' of salt, so any extra you add will just sit at the bottom of the glass. Pop your egg in and watch it float, pretty cool, huh!

**STEP 3** - To make it look really magical, very slowly and carefully pour some tap water on top of your floating egg (you have to be very gentle so the fresh water doesn't mix with the salt water). You now have a floating egg!

**STEP 4** - To really see what's going on try gently adding some food colouring to your glass and watch what happens! Only the top half of the glass gets coloured, why is that?

## What's going on?

It's all to do with density. The egg is slightly more dense than tap water (so it sinks initially) but less dense than the salt water (so it floats on top of that). The reason we're able to put the egg in the middle of the glass is, as long as we're careful, the less dense tap water sits on top of the more dense salt water and they don't mix together.



## More Fun Please - Experiment like a real scientist!

- Does it have to be an egg that you use?
- What other objects could you try?

