

Suzy's World

Magic - Is there any magic in science?



- Scientists believe that they can explain everything that happens with a scientific reason.
- The “magic” tricks I did with the eggs all have scientific explanations. I used white vinegar in several of the experiments. Although white vinegar looks like water it’s an acid which reacts with the calcium carbonate in the eggshells to dissolve them. This is a chemical reaction and the egg is changed permanently.
- I spun the eggs to find out which one was cooked and which one is raw. The eggs both looked the same, but when I spun them they reacted differently. Raw egg moves around inside the shell and stops the egg from spinning. (Try it for yourself!)

Do you know

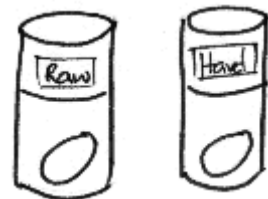
- Magicians sometimes use science in their magic tricks.
- Our bodies are a wonder of science, full of chemical reactions, electrical charges and scientific processes
- Scientists have been searching for answers for hundreds of years.
- Scientists check their explanations work by testing the same idea many times and then trying new situations.

Experiments you can do

Make an eggshell disappear (two “egg-speriments” in one!)

What you need

2 small clear plastic containers
A bottle of vinegar
A raw egg and a hard-boiled egg.
Sellotape
Felt pen
Paper



What you do:

Put a piece of sellotape on each container and write with the felt tip which one is which. Put an egg in each container. Pour in enough vinegar to cover each egg and leave them to sit. Check the eggs every day and write down the changes. In three days both should be ready. Compare how the eggs look and feel like to before they were placed in the vinegar. The acid in the vinegar has made the shell dissolve.

Suzy's World

Continued... Is there any magic in science?

Other Investigations

Floating eggs

What you need:

An egg

1 clear plastic container $\frac{3}{4}$ full of water (a drinking glass will do)

$\frac{1}{4}$ cup of salt

A spoon

What you do:

Carefully put the egg into the glass of water and see if it will float. Use the spoon to scoop the egg out of the water then stir in the salt. Try floating the egg again. What happens?

A fresh egg is denser than water so it will sink in a glass of water. When you dissolve salt in the water the salt particles fill in the gaps between the water particles. Salty water is denser than water because there are more particles in the same amount of space

The salty water is denser than a fresh egg so the egg floats.

Compare floating in a swimming pool to floating in the sea. Which would be easier to float in swimming pool water or salty seawater? Make a prediction then when you get a chance try it out. Remember the tiny salt particles make the water denser.

Jokes

What did the magician say about the egg-speriments? Egg-traordinary!