

The egg that floats and sinks

How can an egg sink and float in the same jar of water?

This experiment will show you the answer.

Place a fresh egg into a big jar of water.

2 Carefully take out the egg. Then stir in five spoons of salt

3 Place the egg back in the jar. What does it do this time?

It should sink to the bottom of the jar. That's because the egg is DENSER (see below) than water.



As the salt DISSOLVES in the water, it makes it more dense.

Now the egg should float. If it doesn't, stir in more salt and try again.



What does DENSER mean?

Everything is made up of tiny PARTICLES. The closer together those particles are, the denser something is.

Pick up a piece of dried pasta, and then a coin, to compare how dense they each feel.

Next steps

Repeat the experiment with flour instead of salt. Does it mix well? Does it make the egg float?

Then use a pebble instead of an egg. Does the pebble float if you add some salt?

Write down what you find out.



Dancing raisins

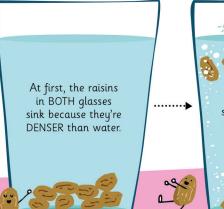
What do raisins do if you add them to two glasses of water – one still and one fizzy?

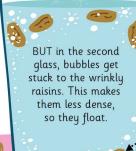


1 Fill the first glass with tap water. Use a new bottle of sparkling water to fill the second.

2 Drop about eight raisins into each glass. Then watch...

Sparkling water contains carbon dioxide. This gas causes lots of bubbles to form. Because gas is less dense than water, the bubbles rise.





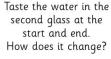
At the surface, the bubbles burst. The raisins become denser — and sink once more.

Back at the bottom, bubbles cling to the raisins, which makes them rise again.

Expand the experiment

Do the raisins stop dancing after a while? Why do you think this happens?







Add smooth things, such as lentils, to a new glass of sparkling water. Do they start dancing?





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