

The magical rainbow in a glass



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Didn't you always want to catch a rainbow?
We will show you how you can easily conjure up a
rainbow in a bottle - totally magic!



What you need:

- Water
- Four glasses
- A spoon
- A funnel
- Food colouring
- Sugar
- A bottle



What to do:



1.

Fill the four glasses with water up to
the same level.

2.

Add 2 spoonfuls of sugar to one glass, 4 spoonfuls to the next and 6 spoonfuls to the third glass. One glass stays without sugar. Stir them all round thoroughly until the sugar has mixed in with the water.



3.

Now, the water is dyed: Add a few drops of food colouring to each glass and stir them round well again.



4.

And your rainbow can already appear: Very carefully fill the water into the bottle while gradually using the funnel. First use the water that contains 6 spoonfuls of sugar, then the glass with 4 spoonfuls, the one with 2 spoonfuls and last of all the one without sugar.

And your wonderful rainbow in a glass is ready!





Why doesn't the water mix with each other?

The water that was mixed with the sugar has a higher density; it is so-to-speak heavier. The less sugar the water contains the lighter it is, so it floats at the top.

But what does "higher density" mean? Imagine the water glasses were empty

rucksacks. You place things inside one rucksack, like you added the sugar to the water. The more things you put inside the rucksack the heavier it becomes - like the sugary water.

Because each colour of your rainbow has a different density, it takes a while for the different coloured liquids to mix in with each other.

