Density Experiment

Stem Activities

Ages: 6-8

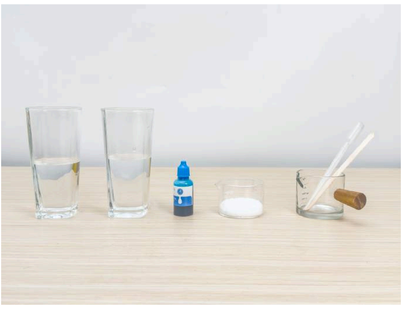
Less than 30 minutes

Grownup needed

You may have dropped coins or leaves into water to observe whether they float or sink, but have you tried a liquid density experiment? While the principle is the same and relates to density, watching liquids float is even more magical and visually fascinating. Try this colourful density experiment at home!

Materials Needed

2 cups of water
Food colouring
Salt
Stirring rod
Dropper
Measuring cup



Step-by-step tutorial

Step 1

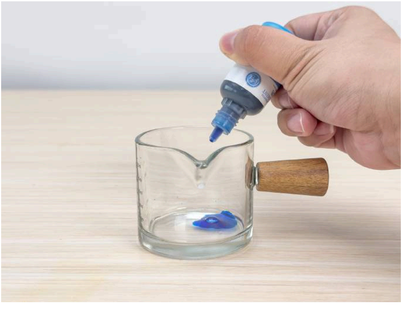
Pour salt into one of the cups of water.

Step 2

Stir thoroughly with the stirring rod until no more salt dissolves.

Step 3

Next, add food colouring to the measuring cup.

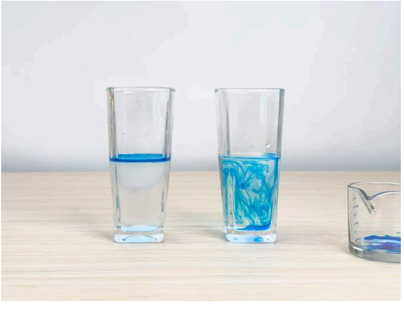


Step 4

Using the dropper, add food colouring to both cups and carefully observe the changes that occur.

Step 5

The food colouring behaves differently in the two cups! Why is this happening?



The Science Behind It:

Objects with higher density sink, while those with lower density float. Salt water has a higher density than food colouring, so the colouring floats on top of the salt water. However, since food colouring has a higher density than plain water, it slowly sinks in the cup of plain water.