



Can you make an egg bounce? We all know eggshells are very fragile, but through some scientific methods, we can make the shell disappear and transform the egg into something elastic. You can conduct this simple chemistry experiment right in your kitchen. The process of dissolving the eggshell is fascinating - get ready to witness the magical moment of a bouncing egg!

Materials Needed

Eggs
White vinegar
Two glass cups
Food colouring
Stirring rod



Step-by-step tutorial

Step 1

Pour white vinegar into both glass cups.



Step 2

Add different food colourings to each glass cup and stir well with the stirring rod.



Step 3

Now place the eggs into the mixed vinegar solution.



Step 4

Observe carefully what happens to the eggshell when it meets the vinegar.



Step 5

After 24 hours, remove the eggs from the cups and carefully wash them clean.



Step 6

The eggs that were soaked in vinegar will now be soft and bouncy. Try gently dropping them on the table to see what happens. Be careful not to throw them too hard!



The Science Behind It:

Eggshells are primarily made of calcium carbonate, which is the key component that makes them hard. When an egg is placed in white vinegar, the acetic acid in the vinegar reacts with the calcium carbonate, producing carbon dioxide gas - those are the small bubbles you see. As the reaction continues, the hard shell dissolves, leaving only the thin egg membrane. This membrane is surprisingly tough, making the egg soft and elastic. The egg can bounce when dropped from a small height.

Try this: What's the highest point you can drop the egg from while keeping it intact?