

BOUNCY BOUNCY BOUNCY... EGG?

Curriculum Topic: Chemistry

Grades and Topic: Nine – Chemical Reactions

* but a fun experiment for kids to be introduced to chemical reactions

Key Concepts:

- Chemical reactions
 - Acids and bases

Introduction

While **chemical reactions** is a high school topic, this experiment is a great way for kids to be introduced to chemical reactions! A chemical reaction is what causes the egg shell to “disappear”, thus leaving a rubber-like egg that can bounce.

You can also use this experiment as a way to see why **brushing your teeth** is important! While putting an egg in vinegar isn't the exact same as tooth decay, the chemical reaction between the two is similar to what happens between the acid in your mouth and your teeth.

Background

An eggshell gets its hardness from a mineral called **calcium carbonate**. In this experiment, the calcium carbonate is the **base**. When putting the egg (or the base) into the vinegar (the **acid**), you will immediately observe bubbles. This is the chemical reaction. When an acid and a base mix, they form the gas, **carbon dioxide**.

Materials

- Egg
- Vinegar
- Glass/jar
- Food colouring (optional)



Preparation

1. Place egg in glass or jar.
2. Pour enough vinegar in (feel free to colour the vinegar for a dyed egg) so that the egg is fully covered.

Procedure

The only thing this experiment needs is patience! It can take anywhere from 2 to 5 days for your eggshell to completely dissolve.

Check on your egg periodically. What does it feel like after a few hours? A day? Mine started feeling rubbery after a few hours and was bouncy after 24 hours! But I left it in longer, as I could tell the shell wasn't fully dissolved yet.

When you're sure the shell is fully gone, start bouncing and squeezing!

Bonus

A bouncy egg is fun, but what happens if you bounce it too hard? Or poke it with a stick? Try it out! But be careful as it may get messy.

Cleanup

Have fun with your egg, but be sure to throw it out by the end of the day, or it may start to spoil.

