

Experiments



What is an Experiment?

A way to answer a question.

A test to explain or find out something.

Example:

Tasting a range of chocolates to find your favourite.

Hypothesis

Before doing an experiment, we need to make a hypothesis.

A hypothesis is saying what you think will happen.

Hypothesis: If a piece of chocolate is put into boiling water, it will melt.



Hypothesis

Questions:

What do you think will happen if I add a Mento (candy) to cola?

If I put a balloon on top, what do you think will happen?



An experiment proves or disproves a hypothesis.

Materials

Cola



Mentos



Balloon



Time to hypothesise



+



+



What do you think is going to happen?

Time to hypothesise

When you drop a Mento into Cola, what do you think will happen?

1. The Cola bottle will explode.
2. The Cola will become solid (like ice).
3. The Cola will become clear.
4. The Cola will fizz up (like a volcano).

Procedure

1. First, put a Mento into a balloon.
2. Secondly, remove the lid from a bottle of Cola.
3. Then, stretch the end of the balloon around the top of the Cola bottle.
4. After that, squeeze the Mento from the balloon into the bottle of Cola.
5. Finally, hold the end of the balloon tightly around the bottle.

What happens?

Mentos look smooth. But close up, they are bumpy.



CO₂ is used to make cola and other soft drinks fizzy.

CO₂ bubbles rush to hang on to the bumpy surface.

There are too many bubbles. They can't hang on and float to the surface. They pop and fill the balloon with CO₂.

Materials (Experiment 2)

Empty
bottle



Balloon

Baking
soda



Vinegar

Procedure (Experiment 2)

1. First, pour vinegar into an empty bottle.
2. Secondly, fill a balloon with baking soda.
3. Then, stretch the end of the balloon around the top of the Cola bottle.
4. After that, shake the baking soda from the balloon into the bottle.
5. Finally, hold the end of the balloon tightly around the bottle.

What happens?

Experiment 2

The **baking soda** and the **vinegar** create a chemical reaction, making CO_2 Gasses need a lot of room to spread out and the CO_2 fills the bottle, and then the **balloon**, blowing it up.