



Monster Mouth Madness

Predict:

In this Halloween experiment, you'll turn an ordinary cup into a creepy creature that foams at the mouth.

But first, let's make some predictions!

1. What do you think will happen when you mix baking soda and vinegar?
2. Do you think the foam will come out the top of the cup or the hole?

What you will need:

- Plastic or paper cups
- A spooky face/cartoon to stick on the front – or draw directly onto the cup
- Scissors (to cut a “mouth” hole in the cup)
- Baking soda (2–3 tablespoons per cup)
- Vinegar (1/2 cup for each monster)
- Food colouring

Instructions:

1. Stick or draw a spooky face onto the cup/s.
2. Asking an adult to help you, cut a hole where the mouth is.
3. Place 2–3 tablespoons of baking soda inside the cup.
4. It's time to bring your monster to life! Pour vinegar into the cup and watch as the foamy mixture bursts out of your creature's mouth!

Extra for Experts!

- Try changing the amounts of baking soda, vinegar, or food colouring — or even use different sizes and shapes of mouth holes — to see how each one changes the effect.

Reflect:

- Why do you think the reaction produces bubbling and foam?
- Was the reaction bigger or smaller than you expected? How could you change this?

How does it work?

The foaming effect happens because of **a chemical reaction between the baking soda (a base) and vinegar (an acid)**. When they mix, they produce carbon dioxide gas, which creates bubbles and foam.

The small hole in the monster's mouth directs where the foam escapes, making it look like the creature is foaming from its mouth. The size and shape of the hole affect how fast or high the foam erupts, smaller holes produce a more forceful, dramatic foam while larger holes let the foam flow more gently.