

# Ice Volcanoes

If the weather is getting a bit warm for you how about we cool everything down with an Ice Volcano! Oh, and learn a thing or two about chemical reactions too.

## What do I need:

- Baking powder
- White vinegar
- Food colouring
- Bowl
- Glasses
- Plate
- Pipette (optional)

## How do I do it?

**STEP 1** - Our first step is to build our Ice Volcano. Take a container of baking powder (approx 150g) and mix together with some warm water in a bowl.

**STEP 2** - Keep mixing your baking powder and warm water together until most of the baking powder has dissolved.

**STEP 3** - Let's freeze our Ice Volcano! Gently place your bowl full of water mixed with baking powder in the freezer and leave overnight.

**STEP 4** - Take the Ice Volcano out of the freezer and let it warm up for 5 minutes before turning it over onto a plate.

**STEP 5** - Use different food colourings to colour our white vinegar.

**STEP 6** - Eruption! Add the coloured vinegar to your Ice Volcano and witness the eruption!

## What's going on?

Your Ice Volcano is a perfect example of the classic acid + base reaction. As our Ice Volcano is made from baking powder it is a base (or alkali!). The vinegar that we add is an acid.

When we mix the acid and the base (vinegar and baking powder) we get a chemical reaction. Those bubbles that you can see are bubbles of carbon dioxide.

## More Fun Please - Experiment like a real scientist!

- What's the perfect quantity of baking powder to make the most active Ice Volcano?
- What could you use instead of white vinegar to trigger your volcano?
- Try using regular brown vinegar or some lemon juice on your Ice Volcano.
- What difference does that make?

