

## Scientific Snowflakes

Let's use some science to make a Scientific Snowflake that will be perfect for hanging on your Christmas tree or any time of year!

### What do I need:

- Borax
- Warm water
- Pint glass
- Pipe cleaner
- String
- Stick

### How do I do it?

**STEP 1** - The first thing is to turn our pipe cleaner into a snowflake shape. All you have to do is to bend it into the shape that you want and twist the ends together to connect them.

**STEP 2** - Get an adult to help out with filling your pint glass with some very warm water.

**STEP 3** - Add a table spoon of borax at a time and stir it in. Keep going until you can't dissolve anymore and there is a white layer at the bottom of the glass.

**STEP 4** - Tie a piece of string around your pipe cleaner snowflake and your stick.

**STEP 5** - Lower your pipe cleaner snowflake into your glass making sure it's not touching the bottom or the sides.

**STEP 6** - Leave overnight for your scientific snowflake to form!

### What's going on?

When you mixed so much borax with your warm water that some remained undissolved you maximised the amount of borax that the water can store.

As the water begins to cool the amount of borax your water can 'hold' starts to come down. Your borax is 'looking' for somewhere to go. But why do the borax crystals form on the side of your snowflakes rather than on the side of your glass?

Because it's easier! Your snowflake is kind of rough and offers the perfect place for your borax to settle (as opposed to the smooth sides of your glass). The borax crystals continue to form on top of one another until you're left with a beautiful Scientific Snowflake!

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

- Does this experiment still work if you use cooler water?
- What's the perfect amount of borax to add?

