

## Activity: Amber Fossils

On SCOPE's Things that...are old episode, you saw Julia make some amber fossils. Here's how she did it:



### What you need:

Saucepan

Wooden spoon

Sugar

Water

Yellow food colouring

Measuring cups

Baking tray

Patty pans

Specimens to preserve (edible flowers, herbs, even small plastic animals like spiders!)

White vinegar (optional)

Cream of tartar (optional)

### What to do:

1. Arrange the patty pans on the tray and place your specimens in each one ready to be preserved.
2. Next, make the amber toffee by mixing in the saucepan 1 ½ cups of sugar, ½ cup of water and 8 drops of yellow food colouring. This will make 6 fossils but you can always adjust the quantities.
3. If you want to, you can also add 1 teaspoon of white vinegar and ½ teaspoon of cream of tartar- they will help to bring about the chemical change when the mixture is boiled!
4. Heat it over high heat until it is boiling. Keep stirring gently until the sugar is dissolved. Boiling sugar is much hotter than boiling water so be careful!
5. When the mixture is thicker than honey and the bubbles are moving really slowly, it is ready!
6. Leave it to cool down for a few minutes then carefully pour it into each patty pan so it covers your specimens.
7. To harden the toffees place the tray into the fridge and they'll be ready in about an hour!

### What's happening?

Real amber forms from resin, a sticky substance that oozes out of trees. Over millions of years it fossilises into a clear yellowish-orange rock, sometimes trapping insects and parts of plants inside. Instead of waiting millions of years though, our specimens were preserved in good old-fashioned toffee!

So what do the cream of tartar and vinegar do? Well, when the mixture is boiling, sugar, or sucrose, breaks down into glucose and fructose. Cream of tartar and vinegar help to bring about this change and keep sucrose from re-crystallising when the toffee hardens- so the toffee is clear and looks more like amber!