



Bath Bombs

While all the ingredients are safe to use, please **test a little first in case of irritation to sensitive skins.**

You will need:

Baking soda $\frac{1}{2}$ cup, citric acid $\frac{1}{4}$ cup, cornflour $\frac{1}{4}$ cup, Epsom salts $\frac{1}{4}$ cup, castor oil 3tsp, essential oil 1-2 tsp, food colour 1-2 drops, 1tbsp water, moulds eg. pattie cake tins

What to do:

1. Add dry ingredients to a bowl and mix
2. Very slowly add a few squirts of wet ingredients previously mixed
3. What happens when you add a drop of the wet mixture? You should see it fizz; this is the bath bomb reaction taking place! Because you do not want the bath bombs to react yet, quickly press down on the fizzy spot with the back of the clean spoon. This should stop the fizzing (and just leave a damp spot).
4. Mix the damp spot in with the rest of the ingredients in the bowl. You want to evenly distribute the moisture as much as you can
5. Continue until consistency is still **very dry** but if you push in the spoon it retains an indent – you may not need to add all the wet ingredients.
6. Now use hands to mould and place into pattie cake tins and leave to dry.

Take it further:

Do the bath bombs take a different amount of time to dissolve depending on water temperature?

How do bath bombs made using a citric acid substitute (Eg. lemon juice or cream of tartar) compare with those made using citric acid?





The Science:

When baking soda (sodium bicarbonate – a base) and citric acid (acid) are mixed and are then put in water, they undergo an acid-base chemical reaction. The reaction produces lots of bubbles, which you see as the bath bomb dissolves in the water. These bubbles that make the water become so fizzy are made of carbon dioxide gas. (The cornflour acts as a "filler" to control the reaction between the baking soda and citric acid – less cornflour more vigorous fizzing).