

## BATH BOMBS

Who doesn't love to soak in the bath? Why not have a go at making your own bath bomb!

In ancient Rome, many Roman cities had at least one public *thermae*, or bath-houses, where facilities were provided for bathing and socialising. Nowadays, many of us have bathtubs in our homes in which we can bathe. So which is more economical; a bath or shower? Conventional wisdom says a shower saves more water than a bath but with more powerful, longer-lasting showers this is not always true. An average bath uses 80 litres of water; an 8 minute power shower, 136 litres.

Do you ever get wrinkles in the bath? One theory for what causes wrinkly skin after a bath is that the outermost layer of skin contains dead keratin cells which absorb water. This makes the surface of the skin swell and the surface is forced to pucker as a result.

Have you ever watched a whirlpool form in your bathtub? Then you've witnessed the fundamentals of a tornado (a vortex) at work. A vortex is a type of motion that causes liquids and gases to travel in spirals around a centre line, making it easier for air to come up and allows the water to flow down the drain faster.

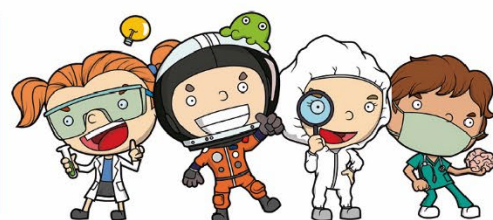
## THE SCIENCE OF BATH BOMBS

When you drop the bomb into the water it starts fizzing. So why does it fizz? Citric acid is a type of acid. Sodium bicarbonate is a weak alkali or base. When the acid and alkali dissolve in water a chemical reaction follows which releases carbon dioxide, producing the bubbles in your bath!

Carbon dioxide is the same gas we breathe out (exhale) and which plants use to stay alive. In return, plants produce oxygen for us and animals to breathe in (inhale) and that's why plants are so important to planet Earth! Carbon dioxide is used to produce carbonated fizzy drinks. The gas is dissolved in water, under pressure and causes the water to become effervescent – the fizzing or little bubbles you see in your drink.

Our skin likes to stay hydrated, so bathing in natural oils is good to keep soft smooth skin and lock in the moisture! Did you see how the coconut oil is solid at room temperature? When we apply heat, we melted the coconut oil into a liquid. When it cooled down, it solidified and helped to set the bath bomb. What else can you think of that will melt when you heat it?

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## RECIPE FOR BUBBLING BATH BOMBS

### YOU WILL NEED

- 55g Sodium bicarbonate
- 23g Citric Acid
- 10g Coconut oil
- Lolly stick
- Pot or small bowl to mix bath bomb ingredients in
- Lolly stick or mixing spoon

### OPTIONAL EXTRAS TO ADD:

- Fragrance e.g. ½ tsp perfume or essential oil
- Colouring e.g. 1 tsp powder food colouring or food Sugar sprinkles

### ADDITIONAL EQUIPMENT REQUIRED:

- Microwave or cup of hot water to melt coconut oil (adult supervision required)
- Pot or muffin tin to mould the bath bomb in

### WARNINGS

- Do not use if you have a wound, swelling or eczema on your hands or arms.
- Avoid contact with eyes. In case of contact wash thoroughly with water.
- Do not use if you show symptoms such as a rash or itchiness with any of the ingredients.
- Always wash your hands afterwards!
- DO not eat the bath bomb!

### INSTRUCTIONS TO A BATH BOMB:

1. Carefully mix together the citric acid and sodium bicarbonate in a pot or mixing bowl with the lolly stick.
2. If you'd like to add a fragrance, add ½ tsp essential or massage oil and stir well.
3. If you'd like to make it coloured, add cake decorating sugar sprinkles and mix it in.
4. With adult supervision, remove the lid of the tube of coconut oil and stand it in a cup of hot water or microwave it for 25 seconds, until the solid has melted, being careful it doesn't spill.
5. Add the melted coconut oil to the dry mixture and mix thoroughly.
6. Press mixture into the pot or muffin tin you are using to mould the bath bomb - really squash it down, compacting the mixture.
7. Leave it to set and then pop it out of the mould when you're ready for a bath.

**\*\*SAFETY WARNING\*\*** Not suitable for children under 3 years.

**Have a bubble-tastic time!**

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