

Suzy's World

Cake - What does it take to make the perfect cake?

Fact

- A perfect cake needs to look and taste good.
- To do this you need to use the correct measurements for the ingredients and follow the instructions.
- Air bubbles need to be created and trapped in the mixture of ingredients so that the cake looks, feels and tastes lighter than the raw ingredients.
- To put air into the mixture we can sift air into the dry ingredients or beat air into the egg.
- We can also use chemicals like baking powder or baking soda that makes little burps of carbon dioxide when we mix and heat them with the liquid ingredients.
- Leave these ingredients and steps out and your cake will be flat, hard and heavy.



Do you know

- Baking soda is the best chemical for making carbon dioxide.
- Baking soda is an alkali (the opposite of an acid).
- In recipes it often suggests that you mix the baking soda in warmed milk and lemon juice because baking soda makes the best bubbles of air in acidic conditions.
- When you bake with baking soda it breaks down to give off carbon dioxide and that leaves you with washing soda. Washing soda does not taste very nice so you find recipes use baking soda when there are other strong flavours to mask the soapy taste.

Experiments you can do

This is the recipe I used for one microwave muffin.

What you need:

An adult to help you

6 tablespoons flour

3 tablespoons castor sugar

Pinch of salt

2 or 3 pinches of baking soda

2 tablespoons milk

2 tablespoons cooking oil

¼ teaspoon of vanilla essence

Part of an egg. (Break an egg into a cup, beat until mixed. Use 1/3 of it and save the rest for other microwave muffins.)

A sprinkle of chocolate chips



Suzy's World

Continued... Cake - What does it take to make the perfect cake?

What you do:

Mix all the dry ingredients together. Add the wet ingredients (remember only 1/3 of the beaten egg). Stir until smooth and all the same colour. Pour into a small microwave safe container. Bake for 3 – 4 minutes on high in the microwave. Get an adult to help you lift the muffins out of the microwave as they will be very hot. Let them cool before you try them.

What happens when you leave out the baking soda or the oil? Make two more muffins. Leave the oil out of one and the baking soda out of the other. Which one is the best? Do you get similar results to mine?

(Your microwave may cook at a higher or lower power so your muffins may need less or more cooking time)

Other Investigations

Find a recipe for Hokey Pokey and investigate the power of baking soda. You'll need an adult to help you with this one too because Hokey Pokey gets really hot. Be very careful.

Does the amount of baking soda you add make a difference to the bubbles?

Make a prediction and try it.

What happens if you add more baking soda to the Hokey Pokey?

Does it make the bubbles bigger? What does it do to the taste?

Make a prediction and try it.

Jokes

Why did the superhero carry around a big chocolate cake? He was the caked crusader.