



THE LAB

Eight pages of things to make and do

Kitchen chemistry

Baking bread

WARNING!
This recipe involves using an oven. Ask an adult to help you.

There's nothing better than the smell of freshly made bread. Here's the craft behind the crust.

What you need

- 500g strong white bread flour
- 1.5tsp salt
- 1 packet of easy bake yeast (7g)
- 3tbsp olive oil
- 300ml warm water
- Mixing bowl
- Dinner knife
- Tea towel
- Baking tray
- Baking paper

Instructions

Put the flour, salt and yeast into a large bowl and mix well with your fingers. Make a hole in the centre of the mixture, and add the oil and warm water. Mix with a knife until the dough starts to stick together. Tip the dough onto a floured surface and knead (squeeze and squash it) for 10 minutes until it is smooth and stretchy. Put the dough mixture into a well-oiled bowl and cover with a tea towel. Leave to rise for one hour.

Remove the dough from the bowl and give it a few squeezes before moulding the mixture into a ball. Put the ball onto a baking tray lined with baking paper. Leave it to rise again for another hour. Heat the oven to 220°C (200°C for a fan oven) then bake the dough for 25–30 minutes. When it is cooked, your loaf should be golden brown and sound hollow when you tap the bottom.



LONGEST LOAF

The record for the longest loaf of bread was 1,211.6 metres and was baked in Portugal in 2005. It was then fed to 15,000 people.

How does it work?

The ingredient that makes bread rise is yeast. Yeast are single-celled fungi that are found everywhere in the world.

When dry yeast is added to flour, salt and warm water, a chemical reaction occurs. The yeast “wakes up” and starts breaking down starch in the flour into sugars, which it can feed on. As the fungus guzzles sugar, it gives off carbon dioxide; this is the gas that makes lemonade fizzy. As dough is kneaded, tiny air bubbles are trapped inside the mixture. The carbon dioxide produced by the yeast inflates these air bubbles and that’s what causes the dough to rise. Baking kills off the yeast but leaves the bubbles behind, which is what gives bread its fluffy texture.