

PULL-OUT
ACTIVITY SECTION

THE LAB

Eight pages of things
to make and do

WARNING!
This recipe involves
using a hot hob. Ask
an adult to help you.



Make puffy pancakes

Celebrate Pancake Day on 5 March by whisking egg whites and making fluffy puffy pancakes.

What you need

Makes two pancakes

- 250g flour, sifted
- 2tbsp baking powder
- 480ml milk, warmed
- 85g butter, melted
- 2 egg yolks
- 2 egg whites, at room temperature
- Cooking oil
- Sieve
- 3 bowls
- Wooden spoon
- Whisk
- Metal tablespoon
- 20cm non-stick frying pan with lid
- Ladle
- Measuring jug
- Rubber spatula
- Toothpick

Instructions

- 1** Sieve the flour and baking powder into a large bowl. In another bowl, mix the milk, butter and egg yolks using a wooden spoon. In a third bowl, beat the egg whites with a whisk until they look like foam and hold their shape.
- 2** Pour the milk mixture into the flour and stir until well combined. Next, use the metal spoon to fold in the egg whites.
- 3** Heat a drop of oil in the frying pan over a low heat on the hob. For each pancake, pour half the mixture into the frying pan. Cover the pan with the lid and cook for 10 minutes. Use the spatula to turn the pancake, cover and cook for another 10 minutes.
- 4** To check your pancake is ready, insert a toothpick into the centre. If it comes out clean, it is cooked. Decorate with berries and mint leaves, if you like.



How does it work?

There are two key ingredients that make these pancakes extra fluffy. The first is the egg whites. When you beat egg whites, the action causes proteins (important chemicals found in all living things) in the whites to unbunch and unfold. Air bubbles forced into the liquid are now trapped by the proteins, making the mix foamy and stiff, which in turn makes the pancakes fluffy. The second ingredient is baking powder. When all the ingredients are mixed together, two chemical ingredients in the powder react together and slowly release carbon dioxide (CO_2). This is the gas that makes lemonade fizzy. When the mixture is heated up, more carbon dioxide is given off more quickly. The expanding gases blow up the pancakes, giving them their extreme puffiness.

We would love to see pictures of your lab experiments. Please send your photos to scienceandnature@dennis.co.uk

Issue 7 Science+Nature 27