

# Why do pancakes turn yellow when they're cooked?

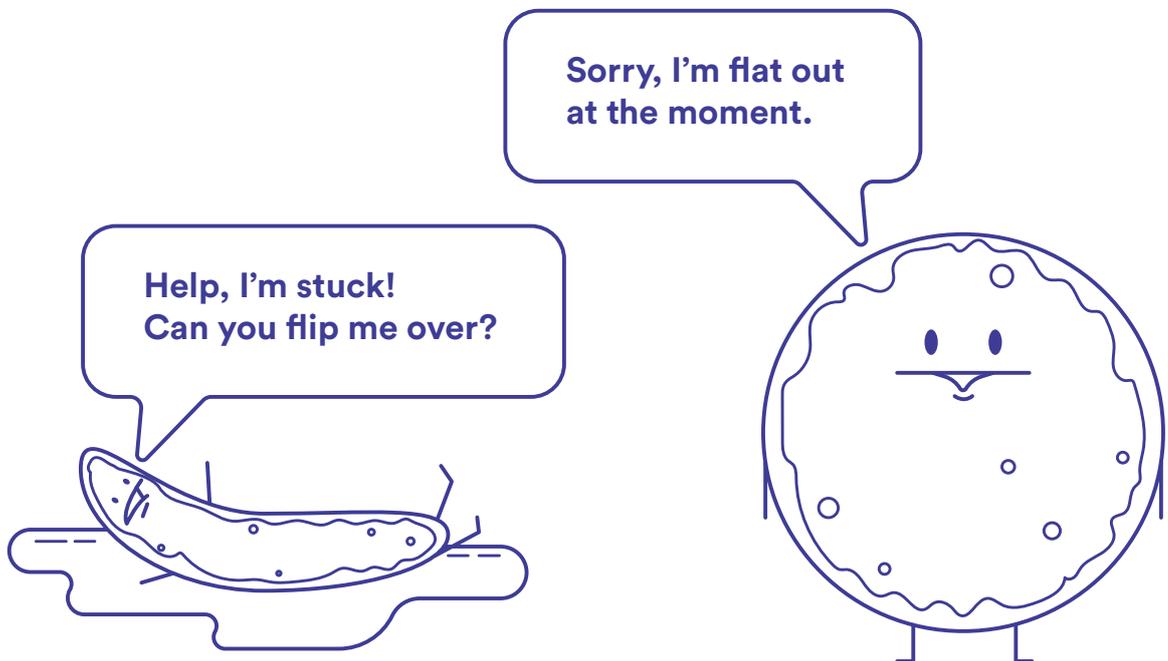
ACTIVITY SHEET

## Kitchen Chemistry

Let's make some pancakes with a twist! This experiment is based on the **Maillard reaction\*** and **Caramelisation\*\***, let's see what happens when we **remove** ingredients such as **eggs** or **sugar**...

Ask a grown up to help you with this cooking experiment and write down your observations.  
Do you notice anything different?

Ingredients (TOTAL)	Equipment
1 cup (150g) of self-raising flour	3 bowls
1 tablespoon of sugar	A mug
1 egg (lightly beaten)	A frying pan
$\frac{3}{4}$ cup of milk	A wooden spoon
1 tablespoon of butter	A spatula



## Word Bank

**Maillard reaction\*** (pronounced *My-arr*) is what happens when proteins and sugars mix together and get heated up to create the delicious crust on our food.

**Caramelisation\*\*** is a series of chemical reactions that create all the mouth-watering flavours and smells in our food.

## Method

NO EGG Maillard reaction	NO SUGAR Caramelisation	NO MISSING INGREDIENTS
1. Place 1/3 cup of self-raising flour and ½ tablespoon of sugar into a bowl and mix well with wooden spoon.	1. Place 1/3 cup of self-raising flour into a bowl, but <b>do not add sugar</b> .	1. Place 1/3 cup of self-raising flour and ½ tablespoon of sugar into a bowl and mix well with wooden spoon.
2. <b>Do not add any eggs</b>	2. Crack the egg in a mug and lightly beat and divide equally between the two mixing bowls.	2. Crack the egg in a mug and lightly beat and divide equally between the two mixing bowls.
3. Mix in ¼ cup of milk.	3. Mix in ¼ cup of milk.	3. Mix in ¼ cup of milk.
4. Heat frying pan to a medium temperature. Add butter to pan and melt.	4. Heat frying pan to a medium temperature. Add butter to pan and melt.	4. Heat frying pan to a medium temperature. Add butter to pan and melt.
5. Add your mixture to the frying pan. When bubbles form on the surface, flip your pancakes and cook the other side.	5. Add your mixture to the frying pan. When bubbles form on the surface, flip your pancakes and cook the other side.	5. Add your mixture to the frying pan. When bubbles form on the surface, flip your pancakes and cook the other side.
Observations – What do your pancakes look, smell and taste like? Did the reaction take place?  _____ _____ _____	Observations – What do your pancakes look, smell and taste like? Did the reaction take place?  _____ _____ _____	Observations – What do your pancakes look, smell and taste like? Did the reaction take place?  _____ _____ _____

Don't forget to take photos and share your results on social media with **#ScitechAtHome**

## Did you know?

According to the Guinness World Records, the largest pancake was made in Manchester, United Kingdom in 1994. It was nearly 15 metres wide and weighed around 3 tonnes. This weighs more than the average hippopotamus!