



## Starch and Spit

If you chew carbohydrate-rich foods, such as bread or pasta or crackers, for long enough, you may notice they start to taste sweet.

We take a closer look at why this happens in this experiment.

### You will need

- Liquid iodine\*
- A dropper
- 2 biscuit crackers
- 2 paper plates

\*Available as a tincture from most good chemists

### Steps

1. Crumble one of the crackers into a beaker and mix with a small amount of water. Empty the mixture onto one of the plates.
2. Chew the other cracker up in your mouth, for around 5–10 minutes, until it's mushy and tastes sweet. Then, spit it out onto the other plate.
3. Add a couple of drops of iodine to each of the piles of cracker on the plates
4. Note any colour change that takes place.

### Follow-up

When iodine reacts with starch, it changes from a reddish-brown to a bluish-black colour.

You should find that the cracker that wasn't chewed contains starch; whilst the one that was, doesn't contain any.

This is because the starch is broken down in your mouth to smaller sugar molecules as you chew – with the help of an **enzyme** in your spit called **amylase**.