



# TASTE BUD EXPERIMENT

**We recommend requesting permission from parents before conducting this experiment!**

## Context

The mouth is the first stage of the digestive system, and is the only stage of the digestive system that we can see with our eyes. Beyond aiding with digestion, the taste buds that are present on our tongue help us detect different flavours, including sweet, salty, savoury/umami, sour and bitter.

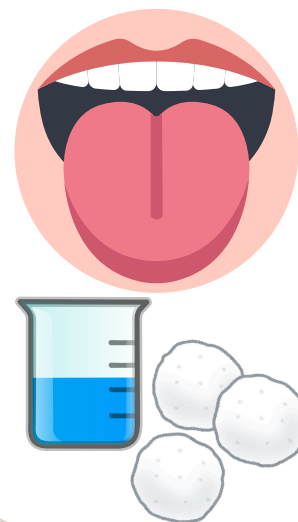
In this activity, your pupils should be able to highlight their taste buds and be able to inspect them using a mirror

## Tools and Ingredients

- Blue food colouring (recommend x4 per class)
- Cotton balls (1 per pupil)
- Mirrors for pupils to view the results (x1 per table, or use nearby bathroom mirrors)

## Method

1. Dab a small amount of blue food colouring on a cotton ball
2. Dab the cotton ball on the edge of the tongue.
3. Look in a mirror at what you can see
  - You should be able to see that the food colouring is sticking to the base of your tongue (filiform papillae), but there are some dots on the tongue which the food colouring will not stick to... These are called fungiform papillae and contain taste buds.
4. If your pupils cannot see anything on their tongue, they may not have used enough food dye, if the tongue is too dark, encourage the pupil to rub their tongue on the roof of their mouth.
5. After the pupils have had a look in the mirror, encourage them to rinse their mouths out to remove some of the staining from their tongue. The rest of the staining should remove with time.
6. Get the pupils to write in their notebooks their findings from the experiment, and what they learnt.



## Reflection Questions

What have you learned today?

What did you observe in the experiment?

How did this experiment make me feel?

If you could do this experiment again, what would you change?

If you could learn more about this topic, what would you like to know?

## Top Tips

It would be recommended to split the pupils up in pairs or small groups to conduct the experiment.

It is important check the label/ ingredients of the food colouring before offering it to your pupils. Most blue food colourings are vegetarian, but please check if they are suitable for any religious beliefs, allergies or intolerances in your class!