



## January Science Challenge

Title: Tooth decay

You will need adult help for this

### Resources:

- Eggs
- Jars
- Tea/coffee
- Water
- Fizzy flavoured drink
- Vinegar
- Toothpaste



### Instructions:

1. Pour the same amount of tea or coffee, water, vinegar and fizzy drink into the jars.
2. Add a raw egg (still in its shell) to each jar. Cover an extra egg with toothpaste and put it in a jar with tea or coffee.
3. Leave the eggs in the jars for approximately three days and then remove them from the jars.
4. Carefully rinse the egg that has been kept in vinegar and rub gently until the shell comes away. This will leave the membrane of the egg!

Record what staining you see on the eggs and make a note on the jar that they came out of. Was the egg that was covered in toothpaste better protected than the eggs that were not?

**Please send a photo on Class Dojo to your teacher. All entries will receive a sticker.**

### The Science:

Eggshells are made from a similar substance to the enamel we have on our teeth. Tea and/or coffee stain teeth because they are rich in tannins. Tannins will stain teeth if they are not cleaned properly. Fizzy drinks are acidic and contain staining products which are harmful to our teeth. Vinegar is acidic so it dissolves the calcium carbonate in the eggshell.

## Science of the Month

### Teeth health



### Choose one of the following topics to investigate:

1. Name the four types of teeth that humans have. Each type of tooth has a unique role, can you find out what it is.
2. Toothpaste and mouthwash haven't always been available to clean teeth. Find out what the Ancient Egyptians used to clean their teeth with.
3. Find out how many teeth the following animals have:
  - Dogs
  - Pigs
  - Great white sharks
  - Garden snails