

3.5 What effect does acid have on teeth?



How would you check what effect acid has on teeth?



Tooth enamel is the hardest material in our body, but very sensitive to acids. Acids are ingested with sour drinks or food or formed from sugar by bacteria in our mouth. What material is similar to our teeth?

Eggshells are made of a similar material as the teeth. In a model experiment with eggshells we can show how acid acts on teeth.



Set up:

- household vinegar (5%) ▪ 2 plastic cups 500 ml
- 1 raw egg ▪ teaspoon
- toothpaste

- Rub one half of a raw egg with toothpaste, put it in a 500 ml cup and cover it with vinegar.
- What happens immediately on the eggshell?

- After about 12 hours, pour the vinegar into the second cup and rinse the egg with water
- What happened to the eggshell?



Observing and documenting:



Analysing and reflecting:



Small children are often given acidic tea to calm them down.
What does that mean for their teeth?



Technical application and vocational orientation:

Space for your sketches