

The Egg Experiment

A demonstration of the effects of acid and fluoride on tooth enamel.

This meets the National Curriculum for: KS1 Sc1 & KS2 Sc1, Sc2

Resources required:

- 1 fresh egg
- 1 hard boiled egg
- white vinegar
- fluoride toothpaste
- 1 egg cup
- 1 clear container with lid (to hold hard boiled egg and vinegar)

Acid erosion activity:

Place a hard boiled egg in to white vinegar solution. Observe the bubbles rising from the egg shell immediately. Leave in the sealed container for one week.

After one week, rinse the vinegar solution off the egg shell. The shell will have dissolved/eroded away, exposing the hard boiled egg.

Fluoride activity:

Place the fresh egg in to a plastic egg cup. Cover half the egg completely in a thick layer of fluoride toothpaste. Leave for one week.

After the week, wipe the toothpaste off the egg shell. Place the egg into a white vinegar solution. Observe the vinegar “attack” the “non-fluoridated” part of the egg. Bubbles will rise from that part of the egg.

There will be fewer bubbles rising from the protected “fluoridated” section of the egg.

Remember to take the fresh egg out of the solution otherwise the egg shell will be eroded away, leaving the raw egg exposed.

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