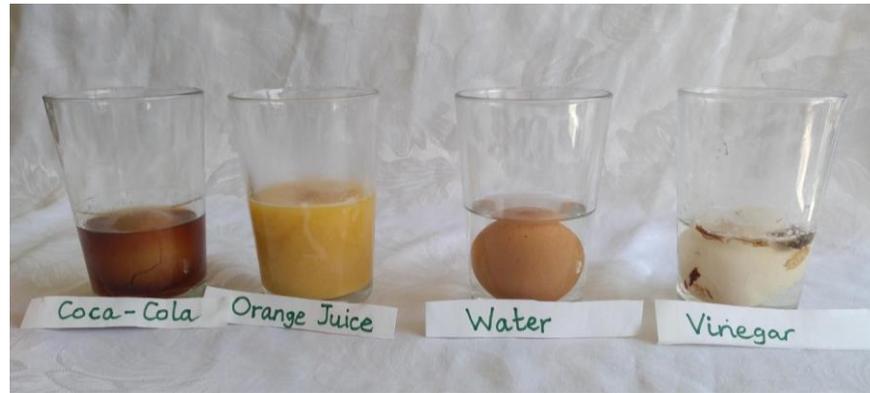


Day 3 - Saturday



Can you see any differences today?

Look closely at the glass of coke to see that the level of liquid is lower.

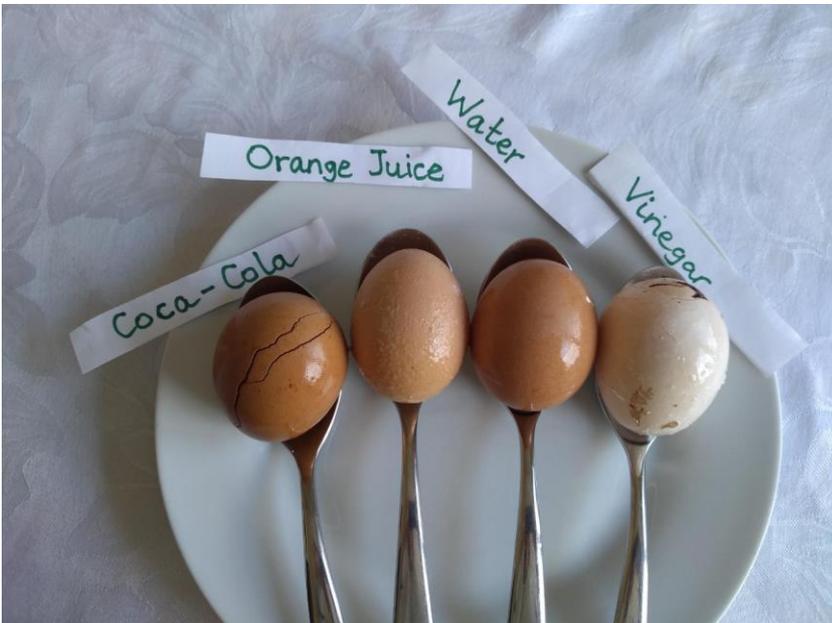
Look at the residue in the glass with vinegar and with orange juice.

Day 3

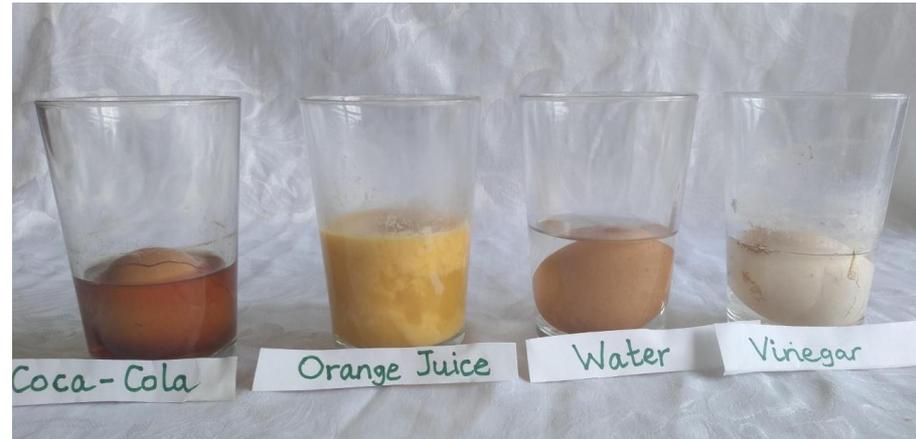


Can you notice any differences?

How have the eggs changed?



Day 4 - Sunday



Look at each glass carefully.

What do you notice about the eggs and the liquid?

Day 4



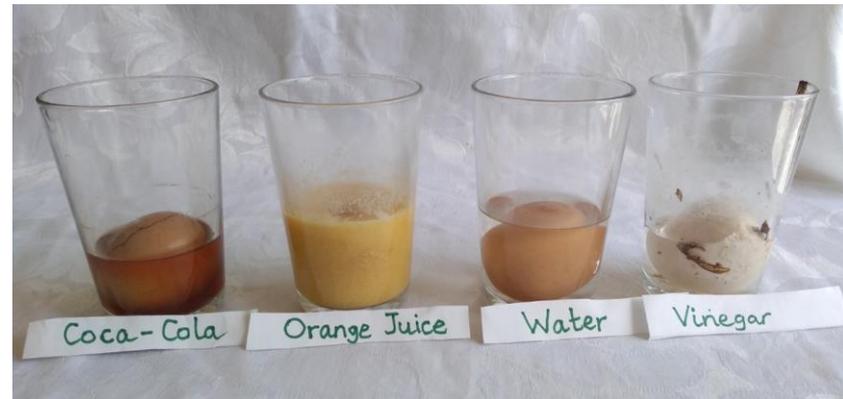
It has now been 4 days!

What do you notice today?

Why do you think the eggs look clean?
(They were not washed)

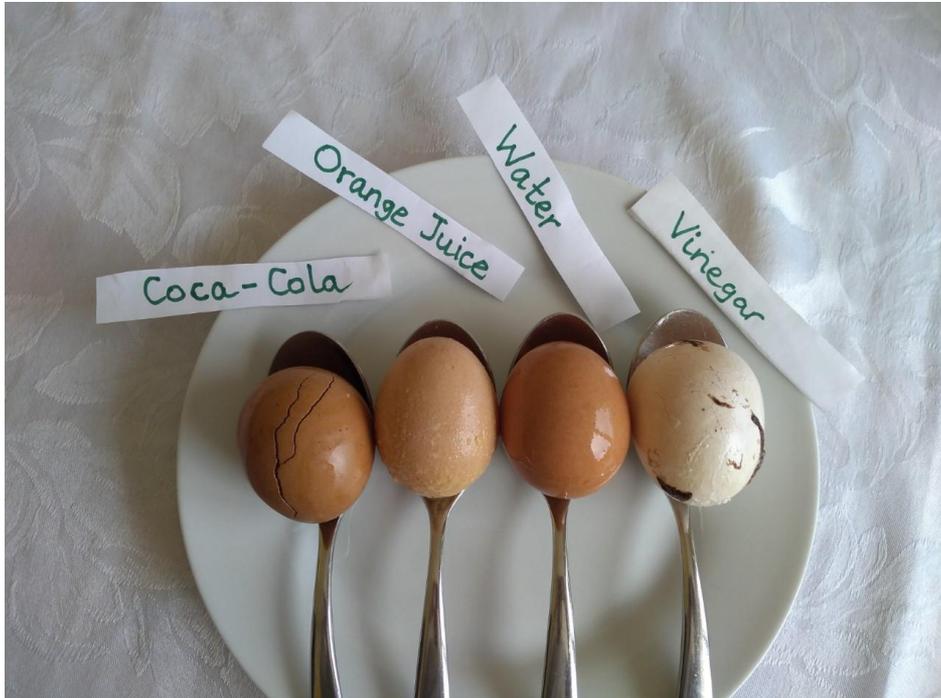


Day 5 – Monday



What do you notice about the eggs and liquids on day 5?
Can you see that some liquids have evaporated more than others?
Can you see the residue in the glasses of orange juice and vinegar?

Day 5



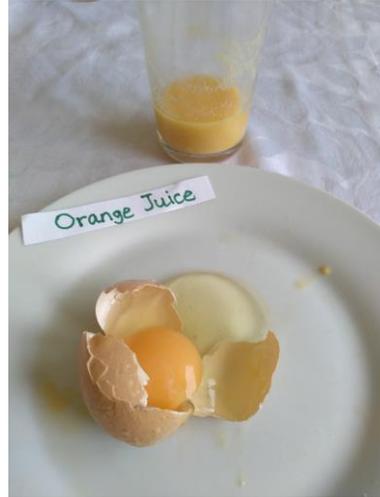
Do you think that the eggs changed much over the 5 days?

If so, how?

The egg in vinegar had a very soft, rubbery shell and it could bounce!

What do you think the vinegar did to it?

End of Experiment



The eggs did not look very different when they were broken.

The shells were all still strong, except for the egg that had been in vinegar. Can you see that it is crumpled. It was softer and rubbery, so broke differently.

Results

How will you collect your results?
What will you observe and how?
I will record the results in a table.

You should do this experiment
and observe it for at least 3 days.
When you feel that you have
enough results, you can stop the
experiment and test your eggs!

Day	Egg in Coke	Egg in Orange Juice	Egg in Vinegar	Egg in Water
Day 1 (After 24 hours)	The shell is more brown in colour.	The juice looks a little dirty. The egg is the same.	The egg has bubbles on it and has gone pale. There is brown colour in the vinegar.	No Change.
Day 2 (after 48 hours)	This egg looks more brown and the coke (liquid) looks paler! The egg has cracked but not leaked.	This egg looks similar to how it looked yesterday.	This egg feels more fragile and softer.	No change
Day 3	The coke has been evaporating faster than the other liquids OR is the egg soaking it up through the cracks? The egg is more brown.	The orange juice is looking dirtier or cloudier. The egg looks similar to day 2 but has bits on it that look like they are from the juice.	The shell of this egg feels very fragile and softer. There is a lot of brown residue in the vinegar and on the egg (but not stuck).	No change

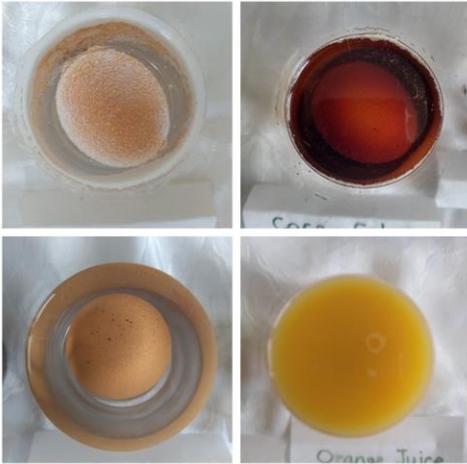
Results

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What will you observe and how?
I will record the results in a table.

You should do this experiment
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When you feel that you have
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experiment and test your eggs!

Day	Egg in Coke	Egg in Orange Juice	Egg in Vinegar	Egg in Water
Day 4	More coke has evaporated of been soaked up. The egg has not become any darker.	The orange juice does not look fresh at all. It looks cloudy and dirty. The egg came out of the juice looking cleaner than yesterday, with no 'bits' on it.	This egg is not quite white. It has lost its colour. It is also soft to touch – the shell is rubbery and can be push in (and goes back to how it was).	No Change.
Day 5	There is not much coke left around the egg. The egg has stayed a darker colour. The cracks are larger. The shell is hard. The egg inside looks normal.	There is no obvious difference since day 4. The juice looks cloudy and undrinkable. The shell is hard. The egg inside looks normal.	There is not as much vinegar in the glass. There is brown residue in the vinegar. The eggshell is soft and rubbery. The egg can bounce! When broken, the shell folds because it is soft. The egg looks normal.	No change

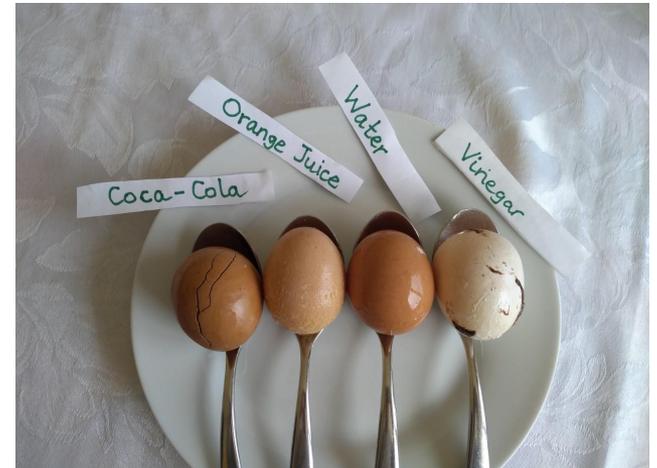
Comparison



Day 1



Day 5



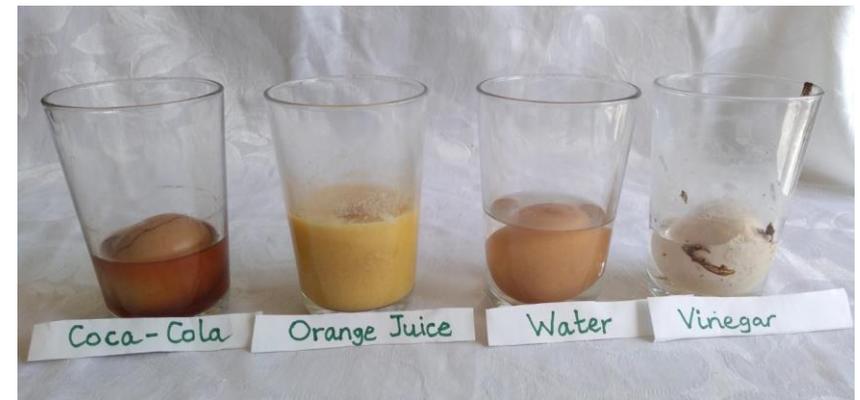
Day by day



Day 1



Day 2

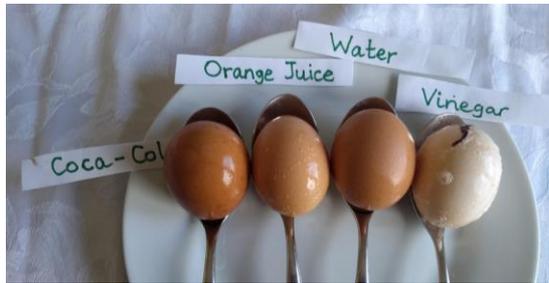


Day 3

Day 4

Day 5

Day by day



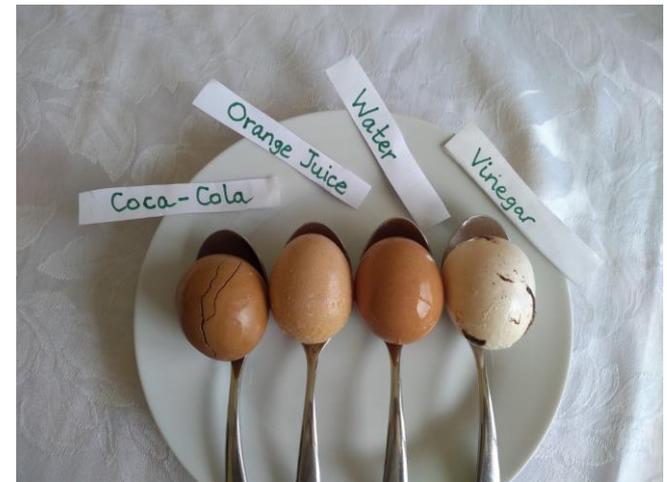
Day
1
←



Day 4
↗



Day
2
←



Day 5
↗



Day
3
←

Analysis of results

Analysis

What did we find out and learn from the results?

- Use the information and evidence you collected to explain your findings.
- From your results, which liquids do you think can damage tooth enamel?

We have found out that...

- Eggshells react to vinegar and makes them soft and rubbery.
- The colour of the Coca-Cola was partly absorbed by the eggshell.
- The eggshell stayed quite strong in Coca-Cola and orange juice.

Hypothesis and thoughts.

Was your hypothesis right?

Did the experiment turn out as you predicted?

- The Coca-Cola did change the colour of the eggshell.
- The eggshell did react to the vinegar, but more than expected.

What would you change if you did this experiment again?

- Put more liquid in each glass

What other questions do you have?

- Why does vinegar change an eggshell in the way it does?