

Acidification vs Pink Sea Fan



What you will need

- 25cm³ Seawater solution
- 75cm³ Brown vinegar
- 2 Beakers/Containers (minimum capacity of 75cm³)
- Measuring cylinder
- 2 Raw eggs

STEP 1

Label your containers as 'Vinegar Solution' and 'Pure Vinegar'.

STEP 2

Use your measuring cylinder to measure 25cm³ of the seawater solution and pour it into the container labelled 'Vinegar Solution'.

STEP 3

Add 25cm³ of vinegar to the same container to create a 1:1 ratio of seawater and vinegar.

This represents water with low acidity.

STEP 4

Carefully place one egg into the 'Vinegar Solution' container.

STEP 5

In the container labelled 'Pure Vinegar', measure 50cm³ of brown vinegar and carefully place the second egg into this container.

STEP 6

After 1 hour, observe both containers and record your findings in the table.

STEP 7

Check the containers again after 24 hours and write down your observations.

STEP 8

Finally, observe the eggs after 48 hours and note the changes in the table.

You may gently touch the eggshells during your observations but handle them carefully as they are raw eggs and can easily break.

Remember!

Wash your hands thoroughly after handling the eggs to maintain cleanliness and avoid contamination.

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Egg 1 - Vinegar Solution

TIME (hours)	OBSERVATIONS
1 hour	
24 hours	
48 hours	

Egg 2 - Pure Vinegar

TIME (hours)	OBSERVATIONS
1 hour	
24 hours	
48 hours	

Conclusion

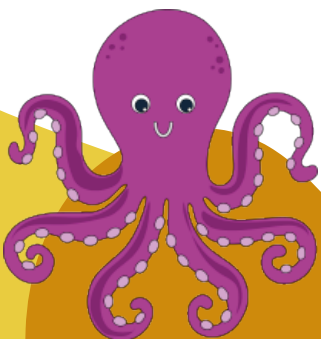
- After 48 hours, what differences did you notice between the two eggshells?
- What have you learned from this experiment about how water acidity impacts the pink sea fan?
- Did you notice bubbles forming around the shells? What do you think these bubbles are?

STEP 9

Before removing the raw eggs from their containers, make a prediction: Which egg do you think will bounce better? Then, carefully take the eggs out and gently try bouncing them. Compare your results to your prediction!

ADDITIONAL
TASK
Optional

Research other organisms that have a shell containing Calcium Carbonate? How might increased acidity in their environment affect these organisms?



The largest pink sea fan on record is 50cm tall and 100cm wide and is believed to be over 100 years old!