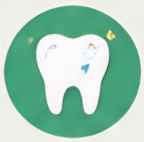
HOMESCHOOL SCIENCE EXPERIMENT

TESTING THE EFFECT OF DIFFERENT LIQUIDS ON TOOTH DECAY WITH EGGSHELLS

Name: _____

Date: _____

Age/Grade: _____



Our teeth have a hard outer layer called enamel. Acids in certain foods and drinks can wear away enamel and cause cavities (tooth decay). Eggshells are made of calcium carbonate—similar to tooth enamel—so we can use them to see how different liquids affect our teeth.

QUESTION

How do different liquids affect eggshells?

HYPOTHESIS

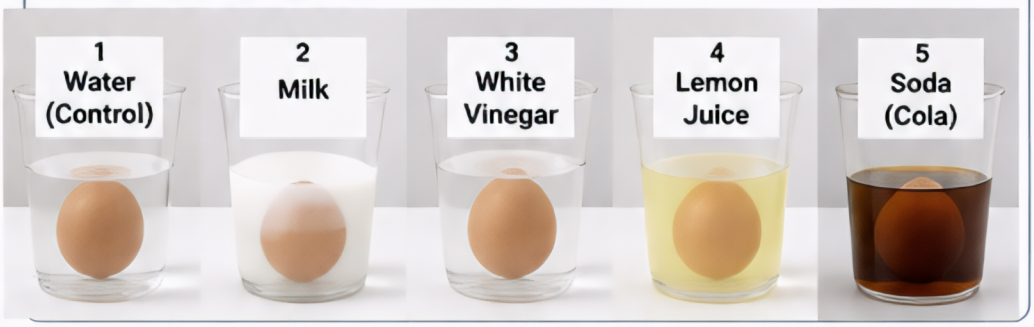
If eggshells are placed in different liquids, then _____ because _____ _____.

MATERIALS

- 5 whole eggs
- 5 clear cups or jars
- White vinegar
- Lemon juice
- Soda (cola)
- Milk
- Water (control)
- Spoon
- Labels and marker
- Paper towel

PROCEDURE

1. Place one whole egg in each clear cup.
2. Add a different liquid to each cup so the egg is completely covered.
3. Use the liquids below and label each cup:
   - Cup 1 – Water (control)
   - Cup 2 – Milk
   - Cup 3 – White Vinegar
   - Cup 4 – Lemon Juice
   - Cup 5 – Soda (Cola)
4. Leave the eggs in the liquids for 48 hours at room temperature.
5. After 48 hours, remove the eggs and rinse gently with water.
6. Observe and record your results in the table below.
7. Compare the eggshells. Which liquid caused the most change? Which caused the least?



OBSERVATIONS

Cup #	Liquid	What does the eggshell look like? (Color, texture, bubbles?)	How does the eggshell feel? (Hard, soft, rough, slippery?)	My Notes / Observations
1	Water (Control)			
2	Milk			
3	White Vinegar			
4	Lemon Juice			
5	Soda (Cola)			

CONCLUSION

What did you find out? Which liquid had the biggest effect on the eggshells? What does this tell you about tooth decay?

_____

_____

THINK FURTHER

What are some ways you can protect your teeth from decay?

_____

_____

_____

TIP: Brush your teeth, eat healthy foods, and drink water to help keep your teeth strong!