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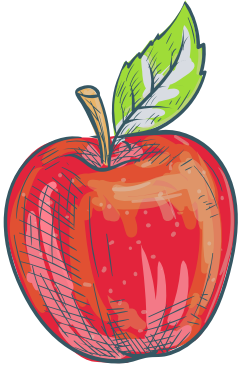
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Julie

Creator and Author of Nature Inspired Learning

Apple Science Experiment



Scenario: Apples make a delicious snack. However, once an apple is sliced it quickly turns brown. This process is called *apple oxidation*. Even dropping an apple will cause its flesh to change color and flavor. Many companies, sell apples coated with lemon juice to stop them from browning. You are curious to see if different liquids can be used to stop an apple from browning. You set off and design an experiment to find out the solution to this problem.

Problem: Once you cut into an apple for a snack, the slices quickly turn brown.

Question: What liquids can be used to slow down apples from browning?

Task: To test out different liquids to see if they prevent apple slices from turning brown.



Material List:

- Different Liquids
- 1 Toothpick per Liquid
- 1 Container per Liquid
- 1 Lid per Liquid
- 1 Apple
- Knife or Apple Corer
- Timer
- Pencil & Recording Sheet

Safety: Liquids can irritate your eyes, make sure to wash your hands before touching your face. Adult supervision when cutting apples for this experiment.

Variables

Independent Variable (*What You Choose to Change*)

Dependent Variable (*What Changes as a Result of the Change You Made*)

Control (*A constant that you will use to compare your results against*)

Hypothesis: _____

Directions:

1. Gather supplies and pick out your liquids
2. Set out one container per liquid on a table.
3. In front of the container place a lid (this will hold the apple slice)
4. Add labels in front of each lid with the name of the liquid or place the main container of the liquid behind the set up. You want to easily see which liquid was used for each slice.
5. Add a small amount of each liquid into each of the containers. Enough liquid to coat the slice once it is placed in the liquid.
6. Prepare your apple slices using a knife or apple corer. *Always use adult supervision!
7. Add one apple slice into each of the liquids. Set the timer for 1 minute. Remove the apple slices from the liquids using a toothpick. Place slices onto the lids.
8. Reset the timer for the next length of time then make your observation.
9. Record observations for one minute, 10 minutes, 20 minutes, and 40 minutes.
10. Compare your final results after 40 minutes to the control. Record which liquid prevented the apple slice from browning the most.
11. Clean up the experiment. Then write you analysis and conclusion.

Data Table

Name of the Liquid

	___ min	___ min	___ min	___ min
Control Apple				