

How to Keep Your Apples from Turning Brown - A Science Experiment

Images and Lesson Plan Adapted from www.coffeecupsandcrayons.com.

1. Choose a selection of non-toxic acids (pH less than 7) and bases (pH more than 7) for your experiment. Here are some suggestions:
 - **Acids:** Vinegar (2.2), Lemon Juice (2.0), Orange Juice (3.0), Black Coffee (5.0), Milk (6.6)
 - **Bases:** Sea Water (8.0), Baking Soda (8.3), Milk of Magnesia (10.5)
 - **Neutral:** Water (7) - important for your "placebo"!



2. Cut up some apple (either the same apple, or at least the same kind of apple - to keep things consistent) and place in small jars, ready to be topped up with your chosen liquids...
3. Create a hypothesis. This simply means, take an educated guess about what you think might happen to the colour of your cut up apples after 1 hour, 1 day, 2 days... etc. Write it down.



4. Perform your experiment! You can create simple tracking sheets for your students to fill out during the experiment and depending on their age, create tables or graphs to demonstrate the results.
5. Compare and contrast your results with your original hypothesis.

Learn These Key Words:

Acid | Base | Placebo | Hypothesis

How might these results help you when using apples in the kitchen?