



Changing pH with household products

pH is an important water test that can tell us a lot about water health. What will happen to the pH when we add things to our water?

This activity is designed to help young students observe changes in pH, and thus, changes in the makeup of water. Changes in waterways often occur at a slower rate over time - this experiment will allow for a visible, observable change that everyone can engage with from their own homes.

Fast facts about pH:

- pH stands for "potential for Hydrogen"
- pH is measured on a scale; lower numbers are more "acidic," while higher numbers are more "basic"
- Pollution can change pH levels
- Acid rain and mining run-off can lead to acidic, lower pH water. Low pH can make it difficult for life to exist in waterways.

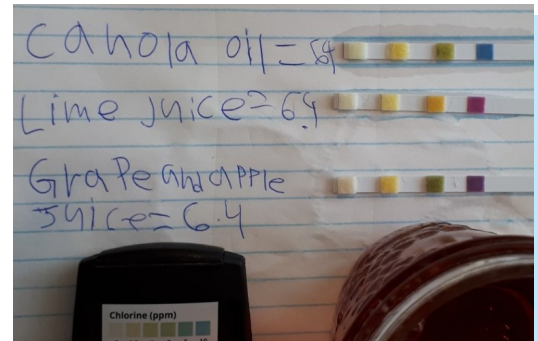
For this experiment you will need:

- Paper and pencil
- Water Rangers teststrips
- 2-4 sample cups (drinking cups or vials)
- Water to sample (tap is fine!)
- Lemon juice, vinegar, dish soap, baking soda



What you will do:

- Take a sample of water and dip a test strip into it. record the results. this will be your *control*.
- Next, take another water sample and add a small amount of one of your household products to it. Test for pH, record the results. What do you notice?
- Repeat this step using each product you have!



Post-activity reflection

1. Which product changed your pH the most?
2. Which products gave a higher/lower reading? What does higher/lower pH mean?
3. How might water with a high/low pH affect the ecosystem within it?
4. Draw the pH scale and label it. What other things could change pH?

Important! You need to determine the pH of your water before you add anything to it! This will be your "control," which will then be compared to the results you get as you change other variables.