

Ask Me About Chemistry!

Today, an instructor from the Discovery Museum in Acton visited my classroom and led a hands-on program about chemistry.

Ask me about the chemical reaction that cleaned up my penny. We tested the pH of common kitchen products like lemon juice and clear carbonated soda. Ask me how I was able to determine an acid from a base by painting with a q-tip on a coffee filter.

We can test some products together using the cabbage juice indicator recipe below. Just wait until you see the color changes.

Cabbage Paper Indicator

Cabbage juice is an excellent indicator of both acid and base. Ask an adult to help you with this project. Working with sharp knives and chemicals can be dangerous. Never mix two chemicals together without first asking an adult if it is safe.

What you need:

- red cabbage
- sharp knife and cutting board
- measuring spoons
- blender
- strainer
- mixing bowl
- several clear plastic cups
- lemon juice, vinegar, clear soda, baking soda, soap, bubble bath, and/or crushed Tums™ in water

What you do:

1. Dice 1/2 of a small red cabbage and put it in a blender.
2. Add 3-4 cups of water.
3. Blend for 10 seconds on high.
4. Strain pulp and collect juice in a bowl.
5. Divide cabbage juice equally between the clear plastic cups.
6. Keep one of the cups of cabbage juice aside as a "control" (for comparison).
7. Pour 2 tablespoons of a sample liquid into one of the cups of cabbage juice. What do you notice?
8. Do the same with the remaining sample liquids and cups. What do you notice? Did the color change?

Acids turn cabbage juice from purple to shades of red & pink. Blue, green, and yellow indicate a base. Can you turn any of these acids or bases back to neutral? (Hint: The cup of juice you used as a control is neutral. Can you mix an acid with a base to neutralize it?)



TRAVELING
SCIENCE
WORKSHOPS
DISCOVERY MUSEUM