

# Using Cabbage as a pH Indicator – Part 1

### WHAT STUDENTS WILL LEARN

In this experiment, students will use cabbage as a pH indicator. By adding different ingredients to cabbage and boiling water, the boiled cabbage will change colors due to different pH levels.

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### WHAT YOU'LL NEED

- ◆ Red cabbage
- ◆ Baking soda
- ◆ Lemon
- ◆ Three pans
- ◆ Measuring cup
- ◆ Knife
- ◆ Stove (or hot plate)
- ◆ Three white plates - for the finished products

### WHAT YOU'LL DO

1. Cut the cabbage into one-inch chunks.
2. Squeeze 1 oz of lemon juice into a measuring cup.
3. Boil one and a half cups of water on the stove in three separate pans.
4. Divide the cabbage into thirds.
5. Add ¼ teaspoon of baking soda to one of the pans.
6. Add 1 oz of lemon juice to a different pan.
7. Leave one pan as is with the boiling water. This will be your control.
8. Put one-third of the cabbage into each of the pans.
9. Boil the cabbage in the pans for ten minutes.
10. Remove cabbage from each pan and place it on separate plates.
11. Observe the color differences in the cabbage based on the pH of the ingredients added (lemon juice and baking soda).

