

# Using Cabbage as a pH Indicator – Part 2

### WHAT STUDENTS WILL LEARN

In this experiment, students will create a hue of colors by adding ingredients to the cabbage juice leftover from the previous pH experiment. Students will be able to tell the approximate pH level of the cabbage juice variations based on their color.

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### WHAT YOU'LL NEED

- ◆ The cabbage from the previous pH experiment
- ◆ Strainer
- ◆ 3 small bowls
- ◆ 3 eggs
- ◆ Light colored juice (white grape juice)
- ◆ Dish soap
- ◆ Graduated flask
- ◆ 6 test tubes

### WHAT YOU'LL DO

1. Using the leftover cabbage from the last experiment, strain each type of cabbage into a separate bowl, creating cabbage juice. As a reminder, some of the cabbage was boiled with lemon juice, some was boiled with baking soda and some was boiled in plain water.
2. Pour 10 ml of cabbage juice from the control group (cabbage boiled with plain water) into four test tubes.
3. Working with the four test tubes that now each contain 10 mL of cabbage juice:
  - Leave one test tube as is without adding any more ingredients.
  - Separate the egg white from the yolk and pour 15 mL of the egg white into the next test tube.
  - Pour 15 mL of dish soap into the next test tube.
  - Pour 15 mL of grape juice into the last test tube.
  - Cover each test tube with your thumb and tip the tube up and down to mix the liquids.
4. Pour the lemon cabbage juice and baking soda cabbage juice into the two remaining empty test tubes.
5. Compare the hue of colors you've created to determine the approximate pH value of each food/liquid. You may also use pH test strips to measure the actual pH of the solutions.

