

Cabbage Juice Chemistry

Step 1: Take 3 cups and pour cabbage juice to fill the bottom of the cups.

Step 2: Take the first cup and add 1 scoop of baking soda. *What happens?*

Step 3: Take the second cup and add a spoonful of vinegar. *What happens?*

Step 4: Compare the two cups and determine which are acids or bases!



pH: COLOR

2: Red

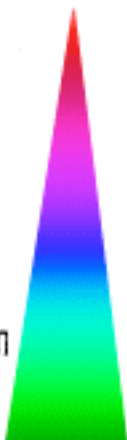
4: Purple

6: Violet

8: Blue

10: Blue-green

12: Green



What is an **acid**? (*Lemon juice, orange juice, vinegar, sour things, and they have low pH*)

What is a **base**? (*Baking soda, bitter things, some cleaning products and they have high pH*)

The Soda Puzzle!

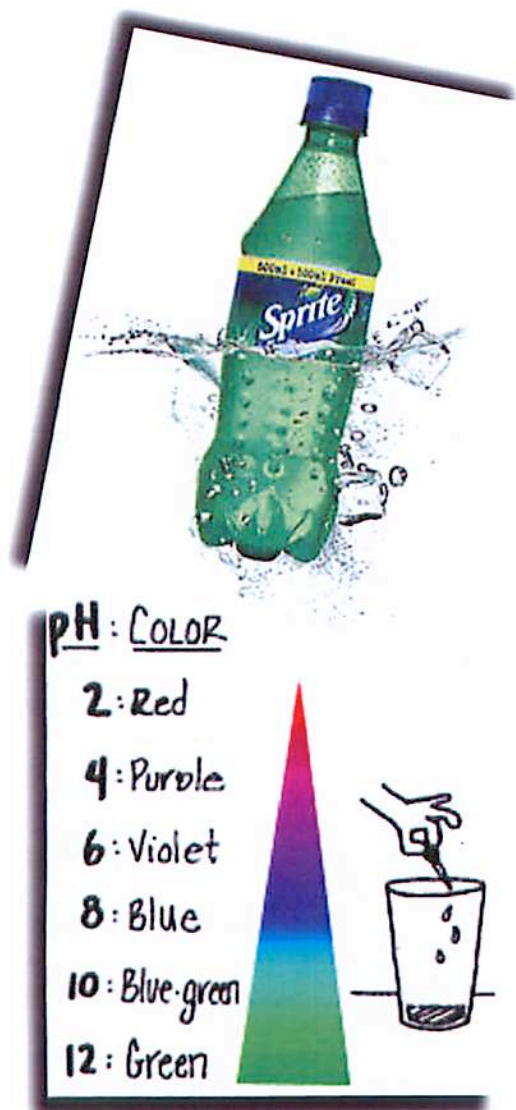
Puzzle: Is soda acidic or a basic?

Hypothesis: Predict if you think soda is either an acid or base?

Experiment: Find the tube labeled "soda" and pour the last of the cabbage juice in the tube.

Observations: What happened? What color did it turn on the pH scale?

Conclusion: Which is it?



What is an **acid**? (*Lemon juice, orange juice, vinegar, sour things, and they have low pH*)

What is a **base**? (*Baking soda, bitter things, some cleaning products and they have high pH*)

Substance	Prediction	Color Change	pH	Acid/Base
Vinegar				
409				
7-up				
Lemon juice				
H ₂ O				
Baking Soda				
Milk				
EtOH (ethyl alcohol)				
LimeAway				
Sugar				

pH: COLOR

2: Red

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