

Name: _____

Date: _____

Acid/Base Indicators

Objective: To use a variety of indicators to approximate the pH of some common acids and bases.

Procedure:

1. Break off a few small pieces of red cabbage and place inside a small beaker filled with water. Place the beaker on a hot plate. Heat it until it begins to boil and the cabbage juice has leached from the cabbage into solution.
2. While it is heating, obtain twelve test tubes and place in a test tube rack.
3. When the cabbage juice has boiled, remove it from the hot plate and place it on the table top.
4. Filter the solution through a filter paper placed inside a funnel and resting in an Erlenmeyer flask.
5. Fill four test tubes with one of the three unknown substances until it is one quarter full.
6. Test the substance in the first test tube with both red and blue litmus paper. Throw out the pieces of paper when done.
7. Add a few drops of **cabbage juice indicator** to the first test tube.
8. Add a few drops of **phenolphthalein** to the second test tube.
9. Add a few drops of **bromothymol blue** to the third test tube.
10. Add a few drops of **methyl orange** to the fourth test tube.
11. Repeat for the remaining unknown substances.

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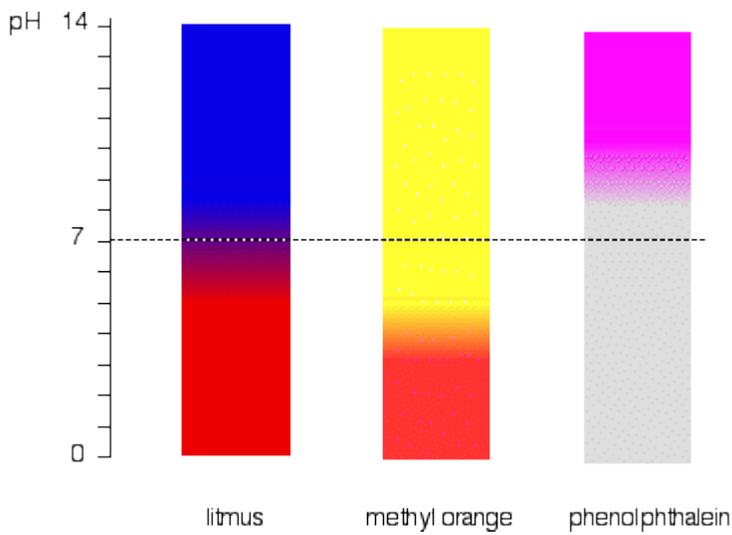
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Red Cabbage Color changes with pH

