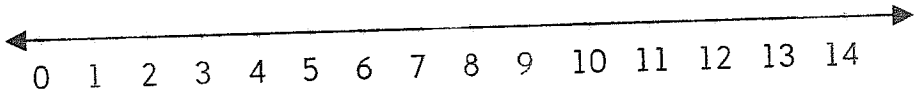
Testing Home Substances

Many common household products contain either acids or bases. Each product has its chemical properties that make it useful for different chores. When you have a tough cut of beef, you can make it tender by marinating it. The marinade whether it is lemon juice, wine, or vinegar reacts with the tough connective tissue to soften it. When you clean the roasting pan after cooking the beef, you will most likely use soap. The soap contains a base that reacts with the oils in the pan to dissolve them. In this activity you will test items commonly found around the house to see whether they are acids or base.

Pre-Lab Questions

1. What sample did you bring to class today?_____
2. Do you predict your sample to be an acid or a base? _____
3. Place an "X" on the pH scale where you predict your sample will test at.



Materials

Liquid samples pH paper litmus paper (red & blue)

Procedure

1. Take a piece of red litmus paper as well as a piece of blue litmus paper.
2. Briefly, dip both papers into the liquid sample. Look at the papers. If the red paper turns blue the substance is a base. If the blue paper turns red the substance is an acid. If neither papers change color, the substance is neutral. Record the data in the data table.
3. Briefly dip a piece of pH paper into the liquid sample. Read the results according to the color chart on the container. Record the results in the data table.
4. Dispose of all papers in the garbage can when finished.

Substance	Prediction (Acid, Base, Neutral)	Litmus Paper ACID	Litmus Paper BASE	Litmus Paper NEUTRAL	pH

Analysis

1. Before beginning the lab, you made acid/base predictions for your sample. Were your predictions correct? _____
2. Which sample contained the greatest amount of H^+ ions? _____
3. Which sample contained the least amount of H^+ ions? _____
4. Which sample contained the greatest amount of OH^- ions? _____
5. Which sample contained the least amount of OH^- ions? _____
6. Which sample(s) contained almost an equal amount of H^+ and OH^- ions?

   _____
7. What is an indicator? _____
8. Place the substances tested on the pH scale below.