

# The pH Scale



-Which is more acidic, a lemon or an apple?

-Which is more basic, ammonia or baking soda?



Name:

Date:

Period:

## Acids and Bases: an Exploration

Red & Blue Litmus Paper, and Universal Indicator are indicators that will change colors in acids and bases.

**A. Research:** Determine what color changes occur. Divide each of your litmus papers into four. Use one small square for each test below.

**1. Litmus Test:** Place one drop of the solution onto the piece of litmus paper.

a. Put one drop of acid (A) on the litmus paper and record any color change.

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b. Put one drop of base (B) on the litmus paper and record any color change.

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**2. Universal Indicator Test:** Place ten drops of the solution onto the dish, then add one drop of indicator.

c. Place a small amount of acid (A) (10 drops) in a dish, add one drop of Universal Indicator (UI) and record any color change. \_\_\_\_\_

d. Place a small amount of base (B) (10 drops) in a dish, add one drop of Universal Indicator (UI) and record any color change. \_\_\_\_\_

**B. Experiment:** Use the color changes from your research to determine if each of the four unknowns is an acid or a base.

Unknown substance	Litmus Test	Universal Indicator Test	Acid or base? Why?
#1			
#2			
#3			
#4			
#5			
#6			