

# pH Lab Activity

**Eighth Grade**

**Activity: 5**

**Time: 1 Class Period**

## General Description

This is a great activity to do as a wrap up to studying acids and bases. Students will use their prior knowledge to make predictions about common household products placement on the pH scale.

## Objectives

Students will use process skills to predict and determine the pH of common household items

## Arizona State Standards

SC08 S1C1 PO1 Formulate questions based on observations that lead to the development of a hypothesis

SC08 S1C2 PO1 Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry

SC08 S1C2 PO4 Perform measurements using appropriate scientific tools (e.g., balances, microscopes, probes, micrometers)

SC08 S1C2 PO5 Keep a record of observations, notes, sketches, questions, and ideas using tools such as written and/or computer logs

SC08 S1C3 PO1 Analyze data obtained in a scientific investigation to identify trends

SC08 S1C4 PO1 Communicate the results of an investigation

SC08 S5C1 PO2 Identify different kinds of matter based on the following chemical properties:

- reactivity
- pH
- oxidation (corrosion)

## Teacher Information

This activity should be done as a wrap up to help students solidify their understanding of acids and bases.

## Materials

Litmus paper

Stain remover

Grape juice

Baking soda

Vinegar

Activity Card 8-5

Small cups

## Procedures/Exploration

1. Obtain samples of the four materials: vinegar, stain remover, grape juice, and baking soda.
2. Remove two strips of neutral litmus paper and rip in half so you have four strips.
3. Before testing any of the substances put your predictions on the chart on Activity Card 8-5
4. Carefully dip one half of the litmus paper into a substance. Record it if the substance was an acid or a base. Use the table on Activity Card 8-5 to determine if the substance was an acid or a base.
5. Answer the questions on the Activity Card 8-5 and share with classmates.

# pH Lab Activity

**Eighth Grade  
Activity: 5  
Activity Card: 8-5**

**Student's Name:**

**Date:**

Fill out the table below as you complete the pH tests.

Substance	Prediction Acid or Base	Prediction pH range	Actual Acid or Base	Actual pH range	Actual pH
Vinegar					
Stain Remover					
Grape Juice					
Baking Soda					

Litmus paper turns red: Acid (pH range 1.0-6.9)

Litmus paper turns blue: Base (pH range 7.1-14.0)

pH 7.0 is neutral

Questions:

1. Which of the above acids would shine a dirty penny better? Explain why?
2. Why do you think bases make good cleaners?
3. Why is it necessary that our bodies maintain a blood pH as close to 7.0 as possible?