

Name: _____ Date: _____ Period: _____

Determining the pH of Common Household Items

The pH of a solution is a measurement of how acidic or basic a solution is. An easy way to measure the pH of a solution is to use pH paper. This paper has been treated with chemical indicators whose color varies according to pH.



Understanding the pH Scale Pre-Lab Questions

*Answer the following questions **before** beginning the lab.*

1. Which numbers on the pH scale indicate an **acid**? _____
2. Which numbers on the pH scale indicate a **base**? _____
3. Which number on the pH scale indicates a **neutral solution**? _____
4. Which number on the pH scale indicates the **strongest acid**? _____
5. Which number on the pH scale indicates the **strongest base**? _____
6. Which number on the pH scale indicates the **weakest acid**? _____
7. Which number on the pH scale indicates the **weakest base**? _____
8. What type of ions do acids release (write the name **and** its abbreviation)? _____
9. What type of ions do bases release (write the name **and** its abbreviation)? _____
10. What is a **neutral** solution? _____
11. Define **pH scale**: _____

Post-Lab: Analysis & Conclusions

*Answer the following questions **after** completing the lab.*

1. Name the solutions that were **actually** acids.
2. Name the solutions that were **actually** bases.
3. Which solutions were **not** what you expected?
4. What were some things that may have gone wrong in the experiment?
5. Explain a situation where someone could use pH test strips in your house.

Lab Procedure

You **MUST** wear goggles at all times!!! *Take your time on this lab... you have all class period!*

1. Have one group member write down each of the samples in the data table below.
2. Make group predictions of whether each sample will be acidic, basic, or neutral. Record these predictions in the data table.
3. Get a well plate and have one person from your group collect 2-3 drops of ***each*** sample solution. Be sure to put each numbered sample into the spot with the same number as the sample. Only place ONE sample in each spot. NEVER MIX THE CHEMICALS!
4. Dip one of the small strips of RED litmus paper into the first well. Pull the strip out **immediately**.
5. Count to 5 and then record the color of the paper in your data table
6. Dip one of the small strips of BLUE litmus paper into the first well. Pull the strip out **immediately**.
7. Count to 5 and then record the color of the paper in your data table
8. Repeat steps 4 – 7 for all of the solutions.

	Solution Name	Prediction (Acid/Base/Neutral)	Color of RED litmus	Color of BLUE litmus	Prediction Correct? (Y/N)	Actual (Acid/Base/Neutral)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

8. Rinse out your well plate with **plenty** of water and dispose of all paper fragments in a trash can...**NOT** down the sink!!!! Return well plates, tweezers, and color charts to the front of the room.