

Introduction to Acids and Bases

Introduction: This is a worksheet laboratory activity. The data table has been provided and you record your observations on this lab sheet. The purpose of the activity is to introduce you to the properties of acids and bases and indicators that are used to characterize a substance as an acid or base.

Procedure: Use spot plates for the reactions A, B, C, D, and G. Use small test tubes with small amounts of material for E and F. Record observations in the data table provided.

Data Table: Acid and Base Observations

	1M HCl	Vinegar	Water	1 M NaOH	1 M NaHCO ₃
A Phenolphthalein					
B Red Litmus Paper					
C Blue Litmus Paper					
D pH Paper					
E Mg metal					
F Marble Chips					
G Cabbage Juice					

Post Lab Questions:

1. Name 3 characteristic behaviors of acids observed in this lab.
 - a.
 - b.
 - c.
2. Name 3 characteristic behaviors of bases observed in this lab.
 - a.
 - b.
 - c.
3. The stronger the acid, the _____ the pH.
4. The stronger the base, the _____ the pH.
5. What gas is given off when Mg reacts with an acid?
6. Write a balanced equation for the reaction between Mg metal and HCl.
7. Do all metals react with acid?
8. What gas is given off when marble chips, Calcium Carbonate (CaCO_3), reacts with an acid?
9. Write a balanced equation for the reaction between CaCO_3 and HCl.
10. What is an acid base indicator?
11. List the acid base indicators used in this lab.