

Name:

Lab Partners:

Acids, Bases, and pH Lab Hand-In**Table 4: Properties of Acids and Base**

Substance	HCl	CH ₃ COOH	NH ₄ OH	NaOH
Red litmus				
Blue litmus				
phenolphthalein				
Mg				
Zn				
Fe ³⁺ ion				
Ca ²⁺ ion				
Na ₂ CO ₃				
K ₂ CO ₃				

Table 5: Conductivity Measurements

Substance	Multimeter Reading (200 m Scale)	Electrolyte Type	
		Non-Electrolyte	Electrolyte
De-ionized water (H ₂ O)	0.00		
Tap water (H ₂ O + various ions)	1.25		
Sucrose (C ₁₂ H ₂₂ O ₁₁)	0.00		
Sodium chloride (NaCl)	18.45		
Sodium carbonate (Na ₂ CO ₃)	10.29		
Ethyl alcohol (C ₂ H ₅ OH)	0.00		
Hydrochloric acid (HCl)	35.23		
Acetic acid (HC ₂ H ₃ O ₂ or CH ₃ COOH)	10.78		
Ammonium hydroxide (NH ₄ OH)	18.98		
Sodium hydroxide (NaOH)	28.98		

Table 6: pH Measurements

Substance	Color	pH
De-ionized water		
HCl		
CH ₃ COOH		
NH ₄ OH		
NaOH		

Table 7: Concentration and pH

Solution	Color	pH
HCl Test Tube # 1 6 M		
HCl Test Tube #2 Dilution		
NaOH Test Tube # 1 6M		
NaOH Test Tube # 2 Dilution		

Table 8: pH of Household Substances

Name of Substance	Color	pH	Solution Type: (acid, base or neutral)