Each student must run 7 reactions and record observations; do not work in pairs!

The following solutions are available for this lab. $NaCl_{(aq)}$ $BaCl_{2(aq)}$ $NH_4Cl_{(aq)}$ $CaCl_{2(aq)}$ $HCl_{(aq)}$

$Cu(NO_3)_{2(aq)}$ $AgNO_{3(aq)}$ $Na_2CO_{3(aq)}$ $H_2SO_{4(aq)}$ $CuSO_{4(aq)}$ $Na_2CrO_{4(aq)}$

WARNING!!!
Some of the solutions will cause chemical burns to your skin; use caution and consider each solution as a hazardous substance. Some solutions will stain your skin or clothing.

For each pair of reagents:
Mix equal volumes of each reagent in a test tube. Swirl gently without spilling and then record your observations on the data sheet. Do not contaminate solutions! Use the squeeze bottles provided to dispense reagents. Do not mix any solutions except those indicated on your data sheet.

For each reaction:

a. Write a balanced equation including phase labels. If no reaction is expected, write N.R.
b. Write the ionic reaction
c. Write the net ionic reaction

- Precipitation reactions can be predicted based on the solubility rules given here:

  Ammonium ion and Group I metal ions are soluble
  Nitrates are soluble
  Sulfates are soluble except for Ba^{+2}, Pb^{+2}, Hg_2^{+2} sulfates
  Halides are soluble except for Ag^{+}, Pb^{+2}, Hg_2^{+2} chlorides

- Gas-forming reactions occur when carbonic acid or sulfurous acid are produced as a product
- Acid/base reactions produce water and a salt

NAME _____

	Reactants	Products	Observations (ppt, gas, heat, N.R.)
balanced eq.	$NaCl + AgNO_3$		
ionic eq.			
net ionic eq.			

balanced eq.	$Cu(NO_3)_2 + Na_2CO_3$		
ionic eq.			
net ionic eq.			

balanced eq.	$H_2SO_4 + NH_4Cl$		
ionic eq.			
net ionic eq.			

balanced eq.	$Na_2CrO_4 + NaCl$		
ionic eq.			
net ionic eq.			

balanced eq.	$Na_2CO_3 + H_2SO_4$		
ionic eq.			
net ionic eq.			

balanced eq.	$Cu(NO_3)_2 + Na_2CrO_4$		
ionic eq.			
net ionic eq.			

balanced eq.	$CuSO_4 + BaCl_2$		
ionic eq.			
net ionic eq.			