

## LAB: NAMES &amp; FORMULAS

**Students: Please read the following information given below, and then come to class on your lab day with the following already prepared in your notebooks:**

- 1) Date, 2) Partner, 3) Title, 4) Purpose, 5) Materials, 6) Safety, and
- 7) Procedures/Observations

The Data tables and Questions need to be printed out and brought with you to your lab class. The Data tables will be completed in class during the lab, the questions will be done after completion of the experiment. The data tables and questions will be due one week after performing the lab in class (your next lab class). No formal lab report is necessary.

Please read the information below. Use this information to write your procedures for the lab.

**Note: You may complete either PART A or PART B first.**

**PART A:**

Complete the data table by writing in the missing chemical name, chemical formula, and ions.

**PART B:**

Set up a well reaction plate so that it matches DATA TABLE B. Make sure that the well reaction plate is thoroughly cleaned before starting. Use a test tube brush to clean the wells. Obtain a set of micro-pipettes (in a cassette case) and add 5 drops of each solution to the correct well. In DATA TABLE B, write the chemical name, chemical formula, and a description of the precipitate (ppt), if there is one. See the diagram below.

	cations:				
anions:	$\text{Ag}^+$	$\text{Cu}^{+2}$	$\text{Fe}^{+3}$	$\text{Mg}^{+2}$	$\text{Pb}^{+2}$
$\text{OH}^-$	Chemical name				
	Chemical formula				
	Description of ppt				

**CLEAN-UP:**

ALL of the new compounds formed in the well reaction plates can be poured down the drain. Once again, thoroughly clean the well reaction plate before returning it. If any of the pipettes are less than half-way filled with the solutions, make sure to refill them before returning the cassette case.

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**DATA TABLE A:** print this out! You will use this sheet in lab, so you must have it with you on your lab day.

NAME	Cation	Anion	FORMULA
Sodium fluoride			
			NaHCO <sub>3</sub>
Magnesium sulfate			
			AgNO <sub>3</sub>
Copper (II) sulfate			
			NaNO <sub>3</sub>
Sodium carbonate			
			KCl
Lead (II) nitrate			
			CaCl <sub>2</sub>
Sodium acetate			
			FeCl <sub>3</sub>
Ammonium chloride			
			SnCl <sub>2</sub>
Sodium phosphate			
			Ni(NO <sub>3</sub> ) <sub>2</sub>
Calcium phosphite			
			WO <sub>3</sub>
Silver chloride			
			Pb(SO <sub>4</sub> ) <sub>2</sub>

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**DATA TABLE B:** print this out! You will use this sheet in lab, so you must have it with you on your lab day.

anions:	cations:				
	$\text{Ag}^+$	$\text{Cu}^{+2}$	$\text{Fe}^{+3}$	$\text{Mg}^{+2}$	$\text{Pb}^{+2}$
$\text{OH}^-$					
$\text{CO}_3^{-2}$					
$\text{PO}_4^{-3}$					

**QUESTIONS: (answer in complete sentences)**

1. Several compounds have Roman numerals as part of their name:

a. What does the Roman numeral tell you? (1pt)

b. Under what circumstances are they used? Give an example. (1pt)

2. At least one compound required the use of parentheses in its formula:

a. Why are parenthesis needed? Give an example. (1pt)

b. What does the subscript outside the parentheses mean? (1pt)