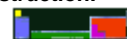


**Revised August 2012**

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## HONORS LAB 3a: Inorganic Nomenclature



**Aim** To identify inorganic compounds by name and formula

**Apparatus** 24 sealed test tubes containing various inorganic compounds. Label with formula or name for each tube.

**Chemicals** Various

### **Method**

1. Visit each set of chemicals and read the name or formula given on the card for each bottle in the set.
2. Record the name or formula in your results table and fill in the missing name or formula for each bottle in the set.
3. Write a brief description of each compound in the set.
4. Complete the results table by finding something that all three compounds in each set have in common with one another.

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**Results**

<b>SET A</b>		
<b>NAME</b>	<b>FORMULA</b>	<b>DESCRIPTION</b>
1.		
2.		
3.		
<b>Commonality</b>		

<b>SET B</b>		
<b>NAME</b>	<b>FORMULA</b>	<b>DESCRIPTION</b>
1.		
2.		
3.		
<b>Commonality</b>		

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SET C		
NAME	FORMULA	DESCRIPTION
1.		
2.		
3.		
Commonality		

SET D		
NAME	FORMULA	DESCRIPTION
1.		
2.		
3.		
Commonality		

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<b>SET E</b>		
<b>NAME</b>	<b>FORMULA</b>	<b>DESCRIPTION</b>
1.		
2.		
3.		
<b>Commonality</b>		

<b>SET F</b>		
<b>NAME</b>	<b>FORMULA</b>	<b>DESCRIPTION</b>
1.		
2.		
3.		
<b>Commonality</b>		

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<b>SET G</b>		
<b>NAME</b>	<b>FORMULA</b>	<b>DESCRIPTION</b>
1.		
2.		
3.		
<b>Commonality</b>		

<b>SET H</b>		
<b>NAME</b>	<b>FORMULA</b>	<b>DESCRIPTION</b>
1.		
2.		
3.		
<b>Commonality</b>		



**Conclusion/Calculation**

1. Describe a feature that all ionic compounds have in common.
  
  
  
  
  
2. Ionic compounds are usually formed between which types of elements?
  
  
  
  
  
3. Complete the table below.

<b>GROUP</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>15</b>	<b>16</b>	<b>17</b>
<b>CHARGES ON IONS</b>						

4. What type of elements exhibit the tendency to form metal ions of more than one positive charge? How are these different charges denoted when naming compounds?

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A1 Sodium nitrate	A2 $K_2SO_4$	A3 Lithium chloride
B1 $CuCl_2$	B2 $CuSO_4$	B3 Copper(II) nitrate

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C1 Copper(II) sulfate	C2 Cobalt(II) chloride	C3 $\text{Ca}(\text{NO}_3)_2$
D1 Copper(II) chloride	D2 Zinc oxide	D3 Chromium(III) nitrate



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E1 $\text{KClO}_3$	E2 $\text{KMnO}_4$	E3 $\text{Co}(\text{NO}_3)_3$
F1 $\text{FeCl}_3$	F2 Sodium fluoride	F3 $\text{NaCl}$

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G1 Hydrochloric acid	G2 $\text{H}_2\text{SO}_4$	G3 $\text{NH}_4\text{OH}$
H1 $\text{Ca}(\text{OH})_2$	H2 Sodium hydroxide	H3 Sodium carbonate