

Fill in the chart below, the Bohr model is like the model you made, just use circles with dots on them to represent the principal energy levels and electrons. The e- configuration is the 1s2..., the # of valence electrons is the group number, and the Lewis dot is the symbol with the valence electrons around it in the order shown in your book.

Element	Bohr Model	e- configuration	# of Valance Electrons	Lewis Dot Structure
Calcium				
Carbon				
Hydrogen				
Helium				
Oxygen				
Fluorine				
Neon				
Sodium				
Aluminum				

Fill in the chart with the formula for the following ionic compounds. This is where you take the charge and switch it unless it cancels out. Al will have a charge of +3 in this chart. Remember the 1 is understood and not written as a subscript.

	<b>Name</b>	<b>Cation (+)</b>	<b>Anion (-)</b>	<b>Formula</b>
1	Sodium Chloride	<b>Na<sup>1+</sup></b>	<b>Cl<sup>1-</sup></b>	<b>Na<sup>1+</sup><sub>1</sub>Cl<sup>1-</sup><sub>1</sub> = NaCl</b>
2	Aluminum Chloride	<b>Al<sup>3+</sup></b>	<b>Cl<sup>1-</sup></b>	
3	Aluminum Phosphide			
4	Magnesium Oxide			
5	Cesium Fluoride			
6	Strontium Nitride			
7	Lithium Sulfide			
8	Calcium Chloride			
9	Sodium Bromide			
10	Beryllium Iodide			
11	Strontium Fluoride			
12	Aluminum Fluoride			
13	Potassium Nitride			
14	Sodium Sulfide			
15	Lithium Oxide			
16	Calcium Oxide			

Ammonium  $\text{NH}_4^{1+}$   
Carbonate  $\text{CO}_3^{2-}$   
Chromate  $\text{CrO}_4^{2-}$

Dichromate  $\text{Cr}_2\text{O}_7^{2-}$   
Hydroxide  $\text{OH}^{1-}$   
Nitrate  $\text{NO}_3^{1-}$

Nitrite  $\text{NO}_2^{1-}$   
Sulfate  $\text{SO}_4^{2-}$   
Sulfite  $\text{SO}_3^{2-}$

Phosphate  $\text{PO}_4^{3-}$

Write the names for the following polyatomic ionic compounds. Above they give you the polyatomic ions you will need.

Use Roman numerals for metals that are not in the representative groups.

- $\text{NH}_4\text{Cl}$  \_\_\_\_\_
- $\text{BeSO}_4$  \_\_\_\_\_
- $(\text{NH}_4)_3\text{N}$  \_\_\_\_\_
- $\text{MgCl}_2$  \_\_\_\_\_
- $\text{NH}_4\text{NO}_3$  \_\_\_\_\_
- $\text{Sr}_3(\text{PO}_4)_2$  \_\_\_\_\_
- $\text{Zn}(\text{CrO}_4)_2$  \_\_\_\_\_
- $\text{K}_2\text{Cr}_2\text{O}_7$  \_\_\_\_\_
- $\text{Ga}(\text{ClO}_3)_3$  \_\_\_\_\_
- $\text{CuOH}$  \_\_\_\_\_
- $(\text{NH}_4)_3\text{PO}_4$  \_\_\_\_\_
- $\text{FeSO}_4$  \_\_\_\_\_
- $\text{Mg}(\text{NO}_3)_2$  \_\_\_\_\_
- $\text{NH}_4\text{NO}_2$  \_\_\_\_\_
- $\text{Na}_2\text{Cr}_2\text{O}_7$  \_\_\_\_\_
- $\text{NaOH}$  \_\_\_\_\_

Write the ions with the charges and then the formula, remember to make the simplest ratio with the subscripts and use ( ) if you add a subscript to a polyatomic ion.

- calcium carbonate       $\text{Ca}^{2+} \text{CO}_3^{2-}$       =       $\text{CaCO}_3$
- barium nitrate      \_\_\_\_\_ = \_\_\_\_\_
- ammonium sulfate      \_\_\_\_\_ = \_\_\_\_\_
- aluminum hydroxide      \_\_\_\_\_ = \_\_\_\_\_
- calcium phosphate      \_\_\_\_\_ = \_\_\_\_\_
- cesium nitrate      \_\_\_\_\_ = \_\_\_\_\_
- sodium nitrite      \_\_\_\_\_ = \_\_\_\_\_
- calcium sulfate      \_\_\_\_\_ = \_\_\_\_\_
- beryllium sulfate      \_\_\_\_\_ = \_\_\_\_\_
- sodium carbonate      \_\_\_\_\_ = \_\_\_\_\_
- magnesium phosphate      \_\_\_\_\_ = \_\_\_\_\_
- calcium phosphate      \_\_\_\_\_ = \_\_\_\_\_

Fill in the chart below.

Name	Cation	Anion	Chemical Formula
Potassium Sulfide			
Potassium Phosphide			
Beryllium Fluoride			
			Sr I <sub>2</sub>
	K <sup>+</sup>	F <sup>-</sup>	
	Ca <sup>+2</sup>	O <sup>-2</sup>	
Copper (II) Fluoride			
Tin (I) Sulfide			
			AgO <sub>2</sub>
	Al <sup>+3</sup>	CO <sub>3</sub> <sup>2-</sup>	
			NaSO <sub>4</sub>
Beryllium Hydroxide			