## Predicting and Naming Polyatomic Ionic Compounds Worksheet

You are required to know numbers of atoms and charge on the following polyatomic ions:

Name of the ion	Chemical structure	Name of the ion	Chemical structure
Phosphate ion	PO <sub>4</sub> <sup>3-</sup>	Sulfate ion	SO <sub>4</sub> <sup>2-</sup>
Hydrogen phosphate ion	HPO <sub>4</sub> <sup>2-</sup>	Hydrogen sulfate ion	HSO <sub>4</sub>
Dihydrogen phosphate ion	H <sub>2</sub> PO <sub>4</sub>	Nitrate ion	NO <sub>3</sub> ~
Carbonate ion	CO <sub>3</sub> <sup>2-</sup>	Acetate ion	$C_2H_3O_2^-$
Hydrogen carbonate ion	HCO <sub>3</sub>	Hydroxide ion	OH
		Ammonium ion	NH <sub>4</sub> <sup>+</sup>

Given the following **polyatomic** ionic compounds, fill in the formula of the compound from its name.

Name of Compound	Element or Polyatomic Cation	Element or Polyatomic Anion	Compound Formula
Lithium Nitrate		The special section of gradients and the special section of the spec	
Sodium Sulfate		The second secon	
Potassium Phosphate	The second secon		
Lithium Carbonate		And the state of t	
Sodium Acetate			
Potassium Hydroxide		The second secon	

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Name of Compound	Element or Polyatomic Cation	Element or Polyatomic Anion	Compound Formula
Ammonium Fluoride			
Beryllium Nitrate		And the second s	
Magnesium Sulfate			
Calcium Phosphate	The second secon		
Strontium Carbonate		production of the control of the con	
Barium Acetate		The control of the co	
Magnesium Hydroxide		A CONTRACTOR OF THE CONTRACTOR	
Ammonium Sulfide	Annual de la constant		
Aluminum Nitrate	The second secon	The second secon	
Aluminum Phosphate			

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Name\_

Name of Compound	Element or Polyatomic Cation	Element or Polyatomic Anion	Compound Formula
Aluminum Carbonate		The second secon	
Aluminum Acetate	The state of the s	The product of the control of the co	

Given the following **polyatomic** ionic compounds, fill in the name of the compound from its formula.

Aluminum Hydroxide

Compound Formula	Compound Name
BaCO <sub>3</sub>	
$Sr(C_2H_3O_2)_2$	
NaOH	
NH4CI	
Fe(NO <sub>3</sub> ) <sub>3</sub>	
CdSO <sub>4</sub>	
Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	
Ag <sub>2</sub> CO <sub>3</sub>	
$KC_2H_3O_2$	
Fe(OH) <sub>2</sub>	

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