

### 3 • What Happens When Chemicals Are Put Together?

#### WRITING IONIC COMPOUNDS

Ionic compounds are formed from a positive ion (cation) and a negative ion (anion).

The positive ion is always written first.

The resulting compound must be electrically neutral.

Use parentheses when you need two or more polyatomic ions in a formula.

	$\text{Cl}^-$	$\text{OH}^-$	$\text{S}^{2-}$	$\text{CO}_3^{2-}$	$\text{PO}_4^{3-}$
$\text{Na}^+$					
$\text{NH}_4^+$					
$\text{Ca}^{2+}$					
$\text{Al}^{3+}$					
$\text{Sn}^{4+}$					
$\text{Hg}_2^{2+}$					

Naming ionic compounds is easy.

The name is simply the name of the cation, followed by the name of the anion.

#	Name	Cation	Anion	Formula
1.	ammonium phosphate	$\text{NH}_4^+$	$\text{PO}_4^{3-}$	
2.	barium nitrate	$\text{Ba}^{2+}$	$\text{NO}_3^-$	
3.	cuprous sulfide	$\text{Cu}^+$	$\text{S}^{2-}$	
4.	aluminum carbonate	$\text{Al}^{3+}$	$\text{CO}_3^{2-}$	
5.	strontium hydroxide	$\text{Sr}^{2+}$	$\text{OH}^-$	