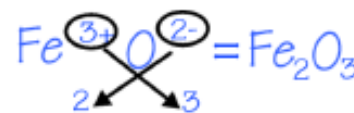


# Naming Binary Compounds

## Directions:

- Using your periodic table, find the Oxidation Number for each element.
- Write the elements. The (+) ion (cation) is written first.
- “Criss-Cross-and-Reduce” the oxidation numbers so that they are now subscripts.
- Do not write the number “1”, it is assumed.
- When naming your new compound, the “-” ion (anion) gets the “-ide” ending and is written second.



**Figure 19.18:** The criss-cross method is a simple way to determine the chemical formula of a compound.

## Determine the formulas for the following:

	Ions	Symbols with Oxidation Numbers	Formula	Compound Name
1)	Lithium and bromine	Li <sup>+1</sup> Br <sup>-1</sup>	LiBr	Lithium Bromide
2)	Potassium and iodine			
3)	Hydrogen and phosphorus			
4)	Sodium and nitrogen			
5)	Magnesium and fluorine			
6)	Calcium and chlorine			
7)	Aluminum and oxygen			
8)	Boron and sulfur			

## Write the oxidation numbers and name of the compounds below:

1)	Formula	Symbols and Oxidation Numbers	Compound Name
2)	MgBr <sub>2</sub>	Mg <sup>+2</sup> Br <sup>-1</sup>	Magnesium Bromide
3)	BaF <sub>2</sub>		
4)	BeBr <sub>2</sub>		
5)	K <sub>2</sub> S		
6)	Li <sub>3</sub> N		
7)	Ca <sub>3</sub> P <sub>2</sub>		
8)	Na <sub>2</sub> O		

\*Extra Credit (+2 points): Look up one of the compounds on this page, give the formula, a brief description of its appearance, and one of its uses. Write your answer on the back of this worksheet.