

Part 1: Binary Compounds

Binary ionic compounds are composed of two ions, a metal and a non-metal. When writing the formula, the positive ion (cation) symbol is written first, and the negative ion (anion) symbol is written last. When naming the binary ionic compound, the cation is named first, the anion is named last, with the ending changed to “-ide”.

Instructions: Roll the die with red writing and the die with blue writing. Fill in the following chart.

Symbol of cation	Charge of cation	Symbol of anion	Charge of anion	Compound Formula	Compound Name

Part 2: Ternary Compounds

Ternary compounds have three kinds of elements. They are nearly always composed of a monatomic (“one-atom”) metallic ion and a polyatomic (“more than one atom”) anion. The only positively charged polyatomic ion is ammonium, NH_4^+ . To write the formula of a ternary compound is no different than to write the formula of a binary compound with one exception. If a subscript is necessary for the polyatomic ion in order to balance the charges, the polyatomic ion must be placed in parentheses.

Instructions: Roll the die with RED writing and the die with GREEN writing. Fill in the following chart.

Symbol of cation	Charge of cation	Symbol of anion	Charge of anion	Compound Formula	Compound Name