Name
AP Chemistry

Objectives:
1. Ionic Nomenclature How do ionic bonds form?
   a. Student will be able to use the ideas of Oxidation reduction to justify how an ionic
      bond is formed.
   b. Student will be able to determine if a substance is using ionic bonding.
   c. Students will be able to write ionic formulas and names for specific ionic compounds.
   d. Students should be able to draw a representation of an ionic crystal and relate that
drawing to the chemical formula of that substance.

Ionic Compounds
Cation – Anion
Name of cation + Name of anion
monatomic anions ending = “ide”

Indicate the formula of the following ionic compounds.
1. Iron (III) Chlorate = Fe(ClO₃)₃
2. Calcium Phosphate = Ca₃(PO₄)₂
3. Gold (III) Oxide = Au₂O₃
4. Tin (IV) Fluoride = SnF₄
5. Barium sulfate = BaSO₄
6. Potassium peroxide = K₂O₂
7. Copper (I) nitride = Cu₃N
8. Sodium bicarbonate = NaHCO₃

Indicate the name of the following chemicals
1. Cu(CN)₂ = Copper(II) cyanide
2. AlCl₃ = Aluminum chloride
3. HI = Hydrogen iodide
4. HClO = Hydrogen hypochlorite
5. Sn(C₂O₄)₂ = Tin(IV) oxalate
6. ZnO₂ = Zinc peroxide
7. Ca₃(PO₄)₂ = Calcium phosphate
8. Fe₃(PO₄)₂ = Iron(III) phosphate

Analysis of ionic compounds
1. The formula for magnesium oxide is MgO. Why can’t we call it Mg₂O₂?

   * Would indicate a package of 4 atoms. Not True

2. In the box below draw a particle view of a MgO crystal.

   ![Particle View of MgO Crystal]