I. Reactivity
   a. Chemical Bond
   b. Lewis Dot Symbols
      1. Valence electrons

II. The Ionic Compound
   a. Ionic bond
      1. Reaction with Lewis dot symbols
      2. Lattice energy
         i. Coulomb’s Law
         ii. Born-Haber cycle

III. The Covalent Compound
   a. Covalent bond
      1. Types
         i. Single
         ii. Double
         iii. Triple
      2. Lewis Structure
         i. Lone pairs
         ii. Octet rule
         iii. Writing Lewis structures
            a. Formal charge
            b. Resonance
               i. Writing resonance structures
               ii. Bond order
            c. Exceptions to the octet rule
               i. Incomplete octet
               ii. Odd-electron molecules
               iii. Expanded octet

IV. Comparison of the Properties of Covalent and Ionic Compounds

V. Electronegativity
   a. Trend
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b. Polarity

1. Nonpolar covalent bond
2. Polar covalent bond

c. Ionic bond

d. Electronegativity and Oxidation number