

## SECTION OVERVIEW

### 5.1: Ionic Compounds

When you think of bonding, you may not think of ions or molecules. Like most of us, you probably think of bonding between people. Like people, molecules bond — and some bonds are stronger than others. It's hard to break up a mother and baby, or a molecule made up of one oxygen and two hydrogen atoms! A chemical bond is a force of attraction between atoms or ions. Bonds form when atoms share or transfer valence electrons. Valence electrons are the electrons in the outer energy level of an atom that may be involved in chemical interactions. Valence electrons are the basis of all chemical bonds.

#### 5.1.1: Ions

#### 5.1.2: Ions and the Octet Rule

#### 5.1.3: Ions of Some Common Elements

#### 5.1.4: Periodic Properties and Ion Formation

#### 5.1.5: Naming Monoatomic Ions

#### 5.1.6: Polyatomic Ions

#### 5.1.7: Ionic Bonds

#### 5.1.8: Formulas of Ionic Compounds

#### 5.1.9: Naming Ionic Compounds

#### 5.1.10: Some Properties of Ionic Compounds

#### 5.1.11: $\text{H}^+$ and $\text{OH}^-$ Ions - An Introduction to Acids and Bases

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