

### Organizer – Bond Types

<b>Bond Type</b>	<b>Valence Electrons are...</b>	<b>Occurs between...</b>	<b>Forming...</b>
Ionic	TRANSFERRED from metals to nonmetals, forming metallic cations and nonmetallic anions	Metals and nonmetals	Crystalline salts, made of cations surrounded by anions, and vice-versa: <i>MgCl<sub>2</sub>, Na<sub>2</sub>O, KI, CaO, LiF, BaS</i>
Covalent	SHARED between atoms of nonmetals (HONC, Lewis Structures)	Nonmetals and other nonmetals	Molecules: <i>H<sub>2</sub>O – water, NH<sub>3</sub> – ammonia, C<sub>12</sub>H<sub>22</sub>O<sub>11</sub> – sucrose (table sugar), C<sub>3</sub>H<sub>8</sub> – propane, C<sub>2</sub>H<sub>2</sub> – acetylene, C<sub>2</sub>H<sub>5</sub>OH – ethyl alcohol</i>  And some covalent network substances: <i>Diamond, graphite</i>
Metallic	SHARED among all of the involved atoms in an “electron sea”	Metals and other metals	Pure metallic solids and liquids: <i>Copper, gold, silver, iron, sodium, mercury</i>  Mixtures of metals known as ALLOYS: <i>Brass, Bronze, Stainless steel</i>