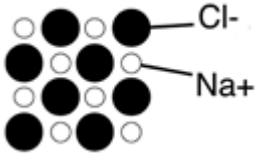
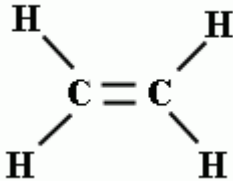
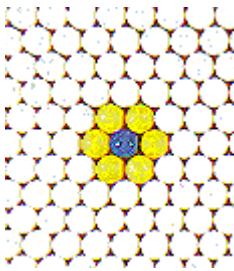


Structure of Matter

Type of Matter	Structure	Pictured as...
<p><i>Ionic Compounds</i> (also known as: Salts)</p>	<p>Crystals composed of alternating positive and negative ions</p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>In sodium chloride, each positive ion is surrounded by six negative ions (in 3-dimensions). Likewise, each negative ion is surrounded by six positive ions. This is called a “crystal lattice”</p> </div> </div>
<p><i>Covalent Compounds</i> (also known as Molecular compounds)</p>	<p>Covalently bonded molecules in which the joined atoms share electrons</p>	<div style="text-align: center;">  <p>Ethene, C₂H₄</p> </div> <div style="margin-left: 20px;"> <p>Molecules are discreet, independent structures, normally involving the covalent bonding of nonmetals to other nonmetals.</p> <p>There are millions of possible compounds involving only nonmetals.</p> </div>
<p><i>Metals</i> (Pure metals and alloys)</p>	<p>“Closest packing” structures of metallic cations in a sea of valence electrons</p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Identical metallic cations (same size) will arrange a structure in which each cation has six identical cations surrounding it in the same plane.</p> <p>In the next layer, cations will occupy the “indentations” created by three adjoining cations in the layer beneath them.</p> </div> </div>