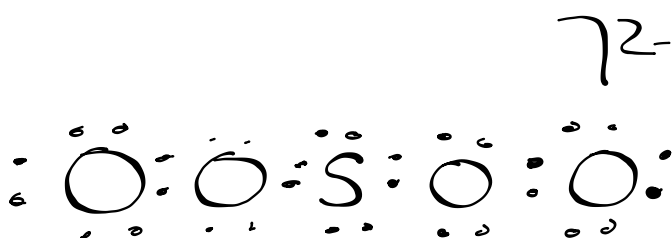
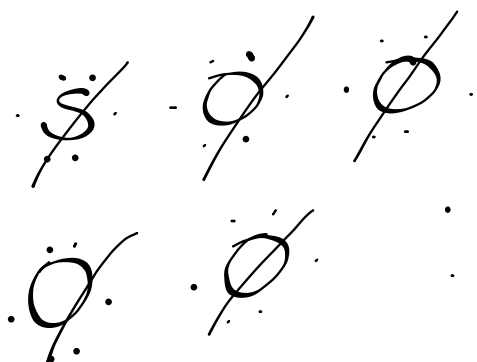
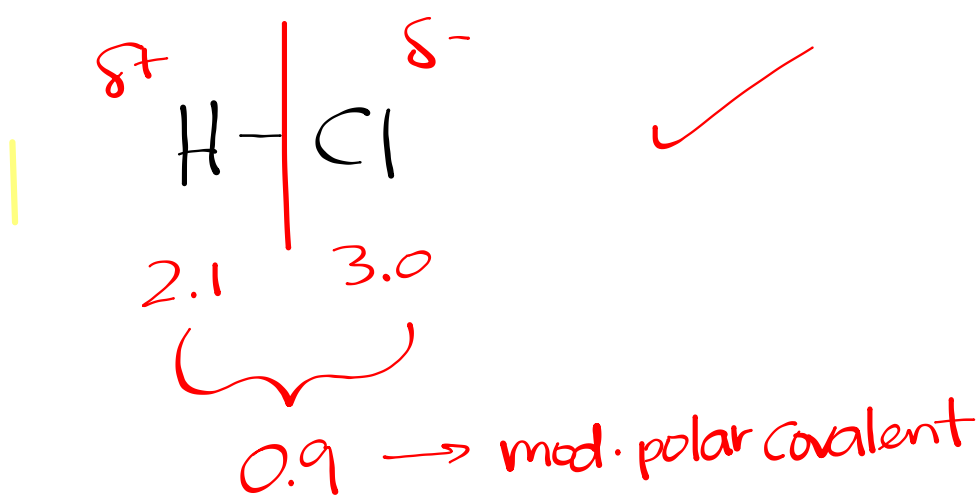


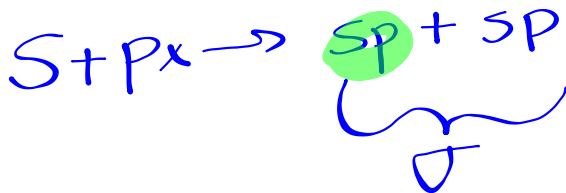
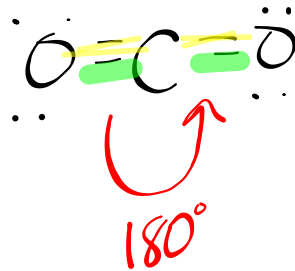
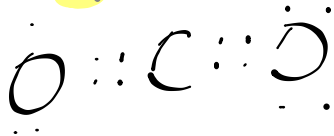
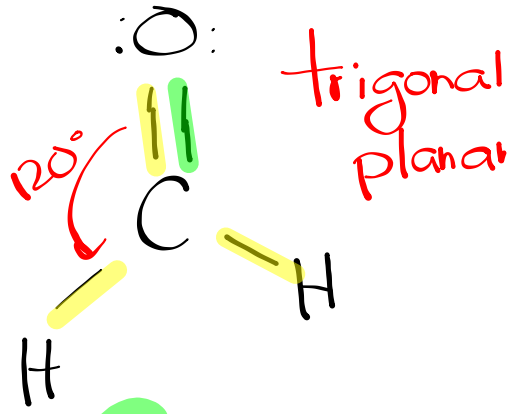
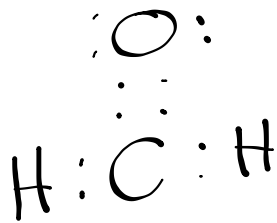
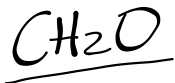
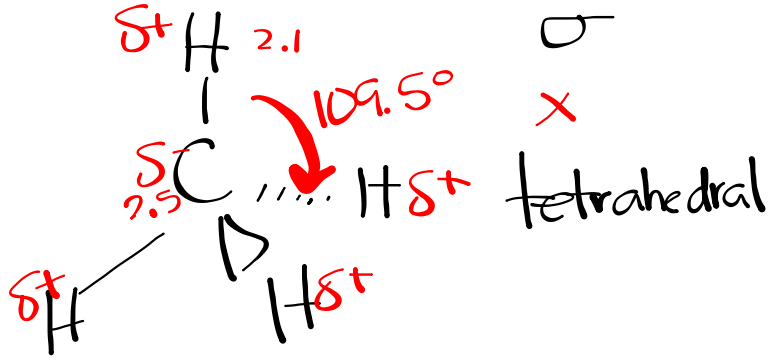
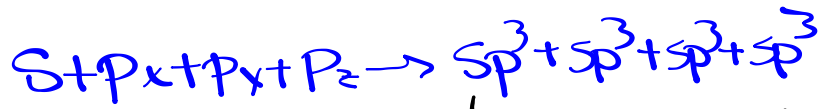
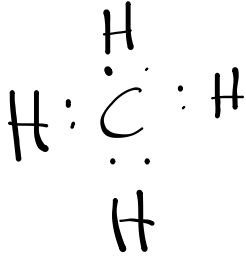
## Chemical Bonding Topics

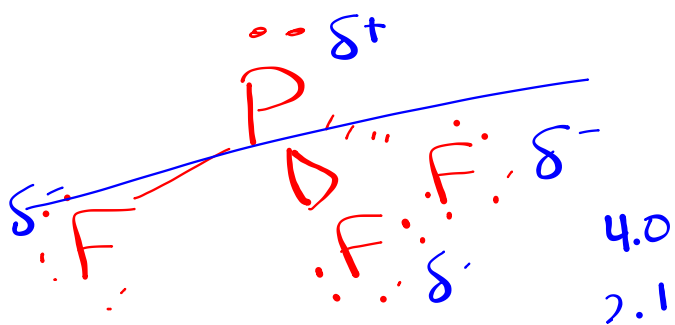
- Octet Rule
- Electron Dot Structure
- Metallic Bonding
- Covalent Bonding
- Coordinate Covalent Bonding
- VSEPR Theory
- Hybridization
- Polarity
- Intermolecular Forces *Dipole, LDF, Hydrogen bonding*
- Properties of Ionic Crystals, Covalent Compounds, Network Solids

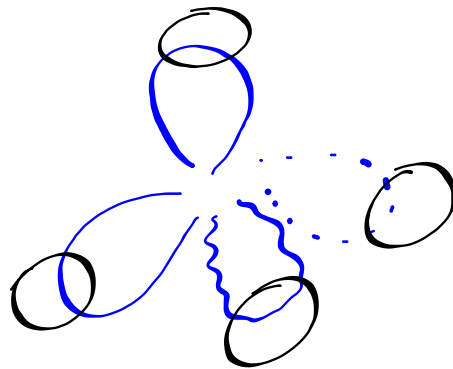


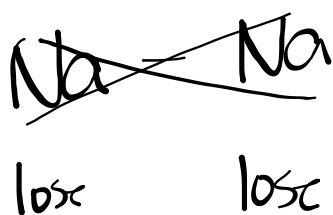
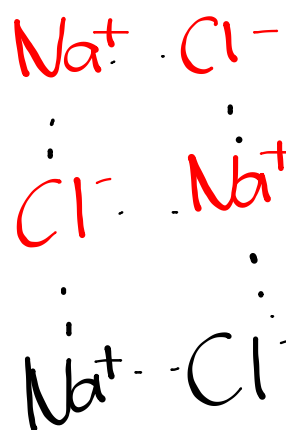
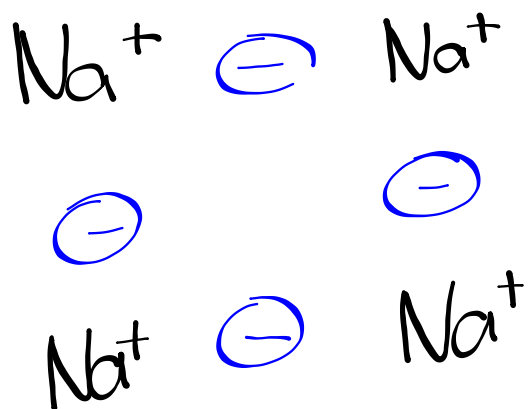














**Table 8.3 Electronegativity Differences and Bond Types**

<b>Electronegativity difference range</b>	<b>Most probable type of bond</b>	<b>Example</b>
<b>0.0-0.4</b>	<b>Nonpolar covalent</b>	<b>H - H (0.0)</b>
<b>0.4-1.0</b>	<b>Moderately polar covalent</b>	<b>H - Cl (0.9)</b>
<b>1.0-2.0</b>	<b>Very polar covalent</b>	<b>H - F (1.9)</b>
<b>≥ 2.0</b>	<b>Ionic</b>	<b>Na<sup>+</sup> Cl<sup>-</sup> (2.1)</b>

**\* No sharp boundary between ionic and covalent**

Table 6.2

Electronegativity Values for Selected Elements

<b>H</b> 2.1						
<b>Li</b> 1.0	<b>Be</b> 1.5	<b>B</b> 2.0	<b>C</b> 2.5	<b>N</b> 3.0	<b>O</b> 3.5	<b>F</b> 4.0
<b>Na</b> 0.9	<b>Mg</b> 1.2	<b>Al</b> 1.5	<b>Si</b> 1.8	<b>P</b> 2.1	<b>S</b> 2.5	<b>Cl</b> 3.0
<b>K</b> 0.8	<b>Ca</b> 1.0	<b>Ga</b> 1.6	<b>Ge</b> 1.8	<b>As</b> 2.0	<b>Se</b> 2.4	<b>Br</b> 2.8
<b>Rb</b> 0.8	<b>Sr</b> 1.0	<b>In</b> 1.7	<b>Sn</b> 1.8	<b>Sb</b> 1.9	<b>Te</b> 2.1	<b>I</b> 2.5
<b>Cs</b> 0.7	<b>Ba</b> 0.9	<b>Tl</b> 1.8	<b>Pb</b> 1.9	<b>Bi</b> 1.9		

## Chapter 8 Review

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**p. 247-249** #39-61

#62-65, 72, 73, 75, 76