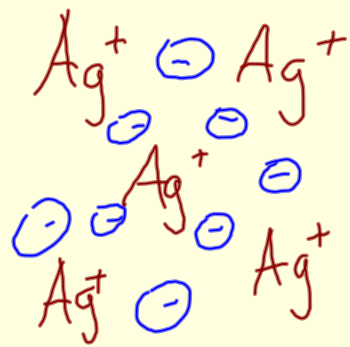
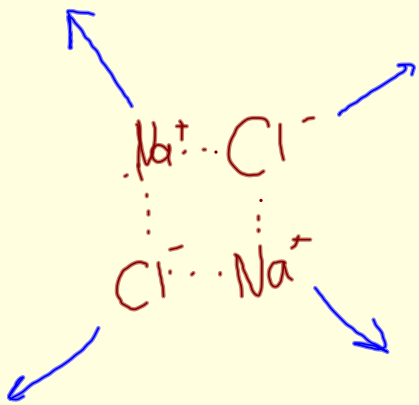


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Electronegativity

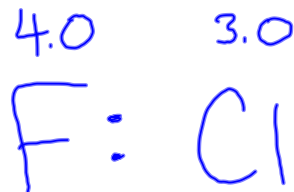
Electronegativity

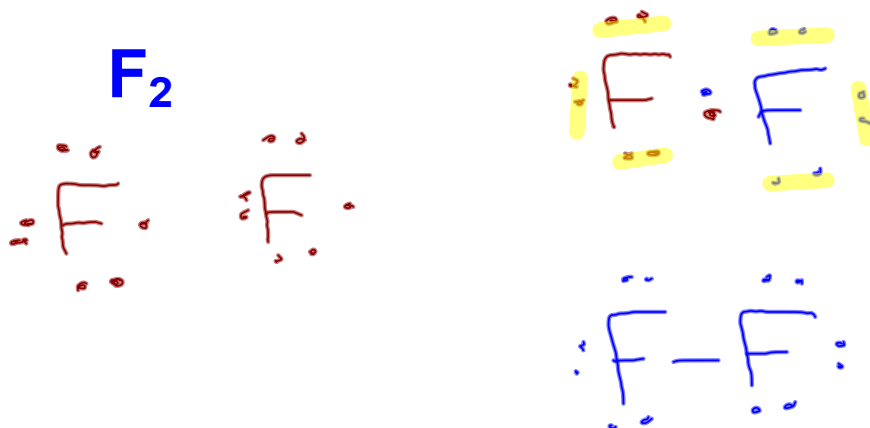
The ability of an atom in a **compound** to attract electrons

Trends

- Within a group, electronegativity decreases from top to bottom
- Within a period, electronegativity increases from left to right

Ex. F

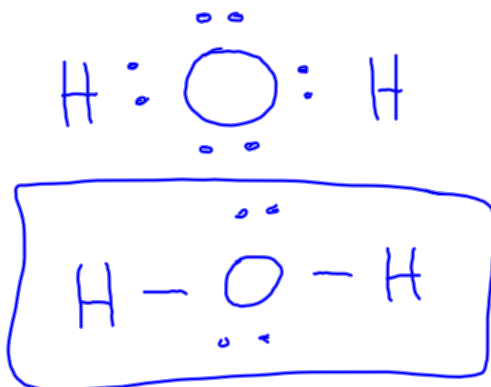
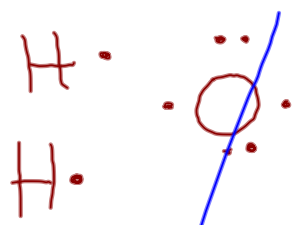




Lone pair (unshared pair)

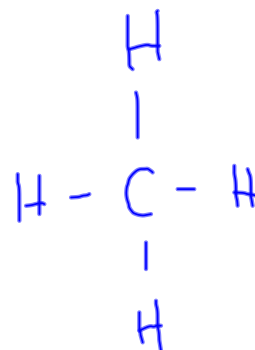
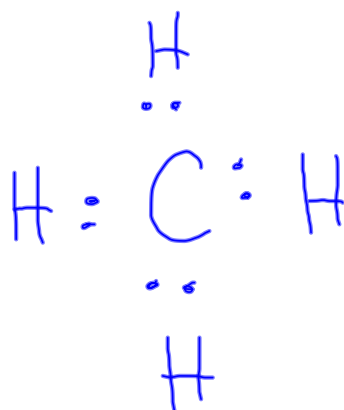
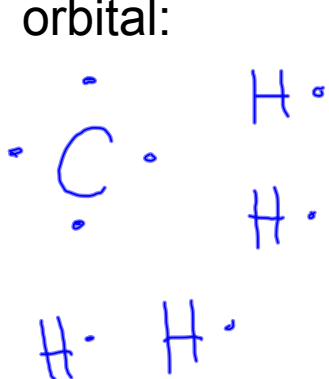
A pair of valence electrons not shared between atoms

H₂O

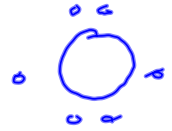
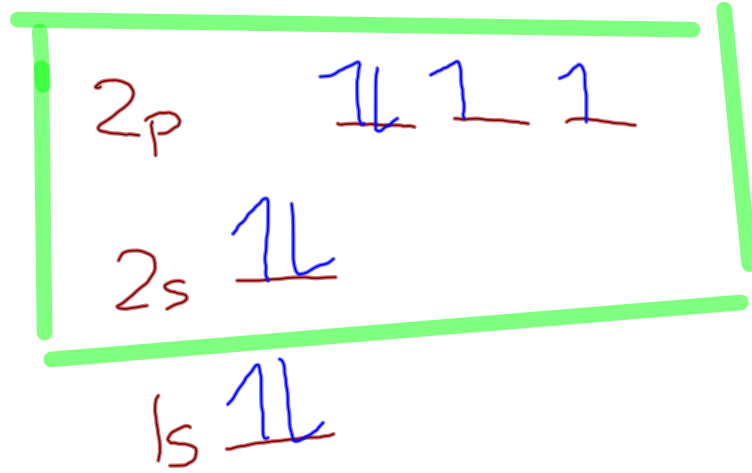


CH₄

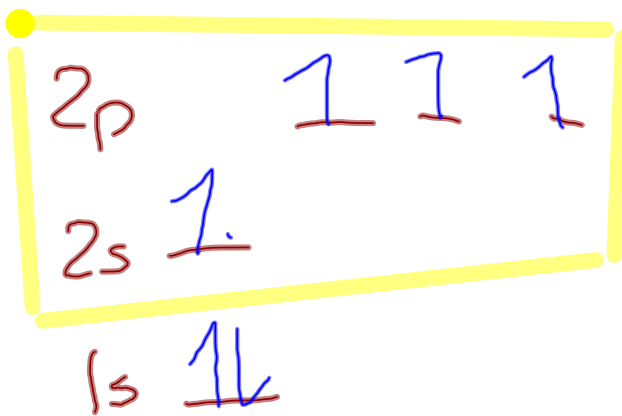
- one of carbon's 2s electrons is promoted to the 2p orbital:

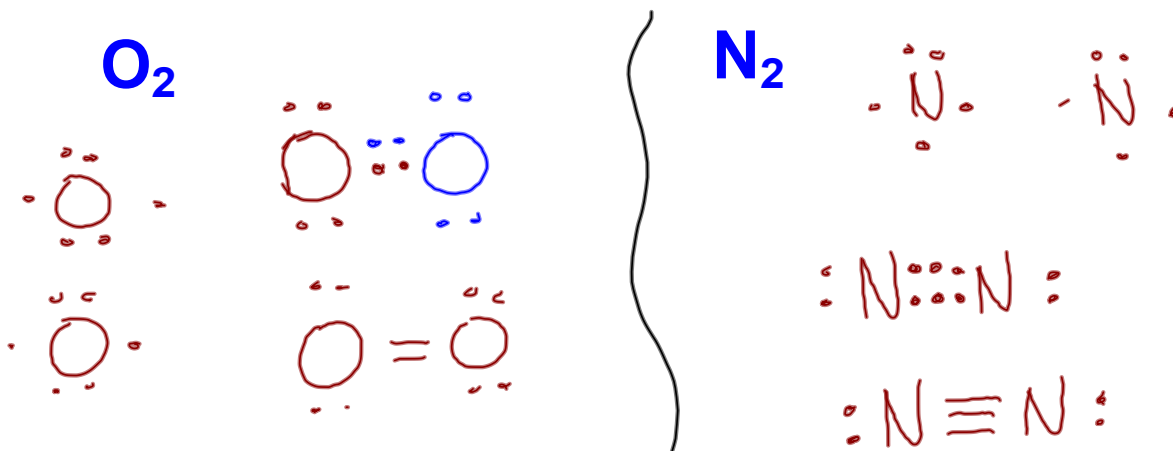


O



C





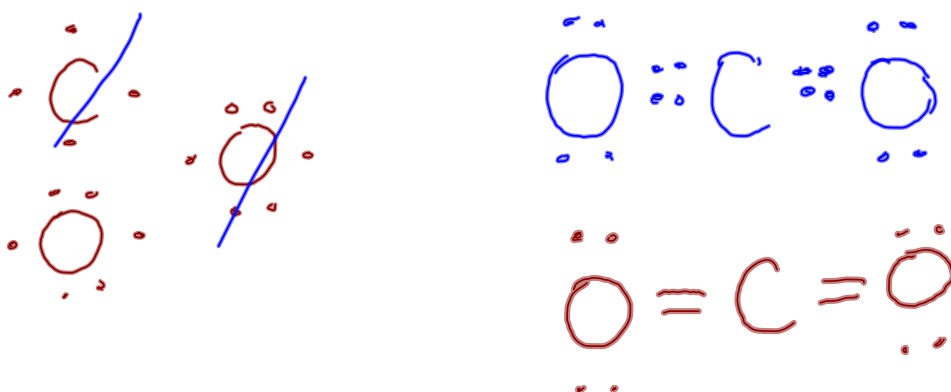
Double covalent bond

Two shared pairs of electrons

Triple covalent bond

Three shared pairs of electrons

CO₂



Coordinate Covalent Bonds

CO

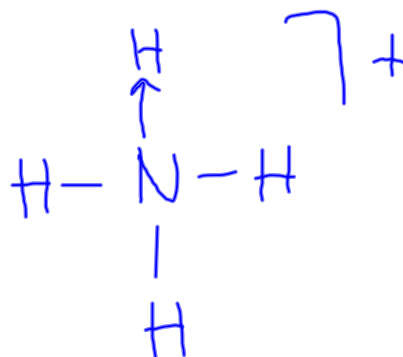
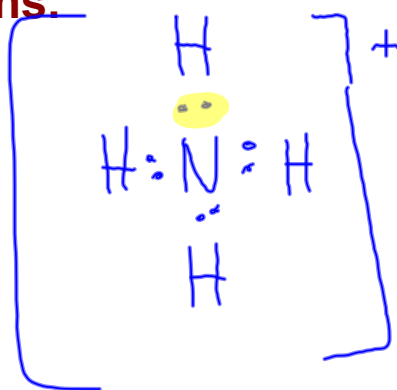


Coordinate Covalent Bond

A covalent bond in which one atom contributes a shared pair of electrons.

- Coordinate covalent bonding is common in polyatomic ions.

NH₄⁺



SO₃²⁻

Homework

p. 220 #7, 8

p. 225 #9-12