LO: Students will be able to draw Lewis structures to represent common compounds.

DOL: Students will be able to identify appropriate Lewis Structures 4/5 times.

Use Lewis Dots to represent valence electrons

K Cl

Diatomic Elements

The following elements never exist as an individual **atom**, they instead are always covalently bonded to themselves.

H N O F

Cl Br I

Oct 21-7:36 AM

Steps to drawing Lewis Structures

1) Determine central atom (or order of atoms in larger molecules)

2) Count the total number of valence electrons

3) Single bond all atoms together and make them all happy

4) Count the electrons, if there are too many, replace a single bond with double. Repeat as needed.

Lewis Structure of Carbon Dioxide

Lewis Structure of Ammonia

Ozone and Resonance

Draw the Lewis Structure for:

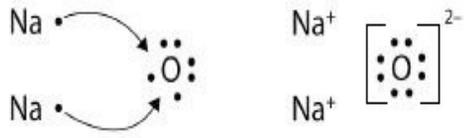
PBr_3 N_2H_2 CH_3OH

NO_2^{-1} C_2H_4

Lewis Structures for ionic compounds:

-Atoms gain or lose electrons to become happy, and then the newly formed ions attracted to each other to form a neutral compound.

Sodium, in group 1A has one valence electron. When each sodium loses its electron, oxygen can gain it. Oxygen is in groud 6A so it wants to gain 2 electrons. In the end oxygen is happy, sodium is happy, and their opposite charges hold them together.



Another example: