Note Taking Guide: Episode 502 **Name_____**

Oxygen:

symbol _____ atomic number _____

_____ protons _____ electrons

electron distribution _____

Oxygen has _____ valence electrons.

Electron Dot Diagram – atom's _____ surrounded by _____
to represent its _____ electrons

example electron dot diagrams: O Li

Problem Set 1:

Lewis Structure: diagram representing the arrangement of _____
electrons in a _____.

Most atoms need _____ valence electrons to become stable. The exceptions are H and He which need only _____ valence electrons to be stable.

Lewis structure for H_2 H - H

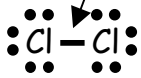
shared pair

- 2 electrons belonging to both _____
- represented by a _____ between symbols

Lewis structure for Cl_2 :

Each Cl atom has ____ valence electrons, giving a total of _____ valence electrons to work with.

_____ pair



unshared pair

- electrons belonging to only one _____
- represented by 2 dots

Lewis structure for HCl:

H Cl

When more than two atoms bond, you must determine which is central. The central atom is:

- frequently _____
- never _____
- often atom with _____ electronegativity

Lewis structure for CH_3I:

(There are a total of _____ valence electrons to work with.)

Problem Set 2:

Lewis structure of ethene, C_2H_4 (has total of _____ valence electrons)

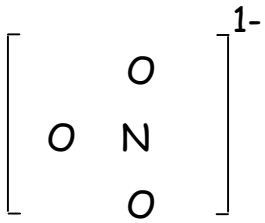
H H
C C
H H

type of bond	pairs of electrons shared

Problem Set 3:

Polyatomic Ion: _____ bonded group of ions with a _____

ex: NO_3^{1-} (has gained _____ electron to give a total of _____ valence electrons to work with)



Work Problem Set 4 on back:

The Chemistry Quiz

CR1. CR2. 1. 2. 3. 4. 5.