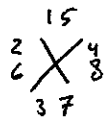
Physical Science 9 – Lewis Dot Structure "Cheat Sheet"



Important points!

- The number of bonds an atom will form is equal to 8 – "# of valence e-" (or equal to the number of unpaired electrons)
  Example:

C ____ N _____ O _____ F _____ H _____

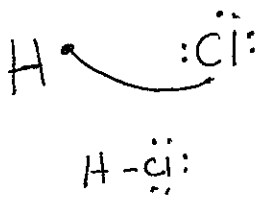
- The central atom is the one that can form the most bonds
- Hydrogen is NEVER a central atom
- Carbon is ALWAYS at the center

Procedure for drawing Lewis Dot Structures!

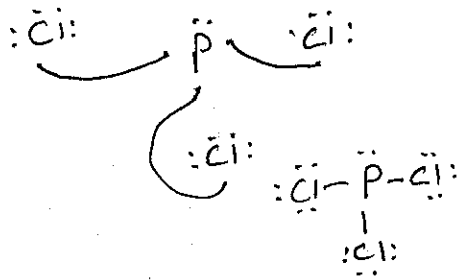
1) Draw Lewis Dot Structures for individual atoms in the molecule.
2) Connect the unpaired electrons from the terminal atoms to the central atoms. (unpaired electrons need buddies)
3) Re-draw the model (if necessary) to make it neat!

Examples:

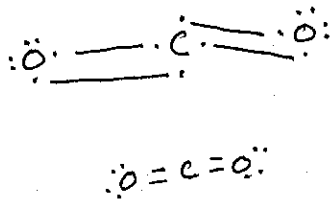
HCl



PCl$_3$



CO$_2$



I$_2$ H$_2$ F$_2$

OCl_2

NH_2Cl

CH_2ClF

C_4H_{10}

N_2O_2

H_2S

C_4H_8

O_2

N_2

PBr_2F

H_2O_2

NH_3

C_6H_6

H_2

CFClBrI