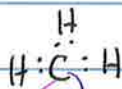
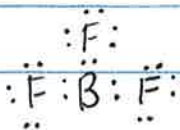


Oct 31<sup>st</sup> : fill in missing topics from ch7, continue ch 8 sections 8.1-8.6

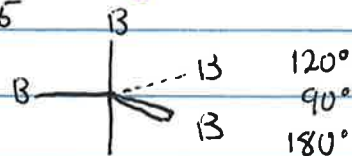
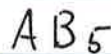
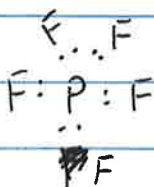
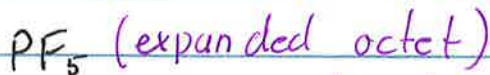
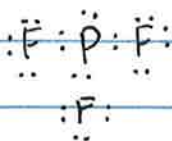
### Steps for drawing good Lewis dot structures

1. Draw the atoms
2. Adjust central atom for charge
3. Add B groups one at a time while making each atom have an octet.
4. Check all atoms for octets

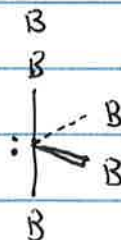
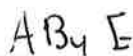
Lewis dot structure  $\rightarrow$  ABE formula  $\rightarrow$  shape  
 $\rightarrow$  polarity if it's neutral  
 $\rightarrow$  interactions between different molecules

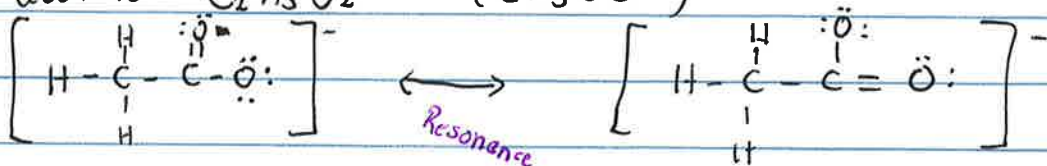
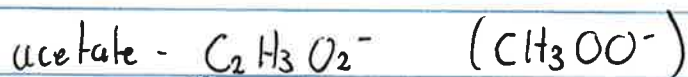
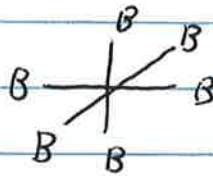
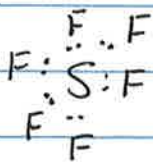


paramagnetic - having one or more unpaired electrons



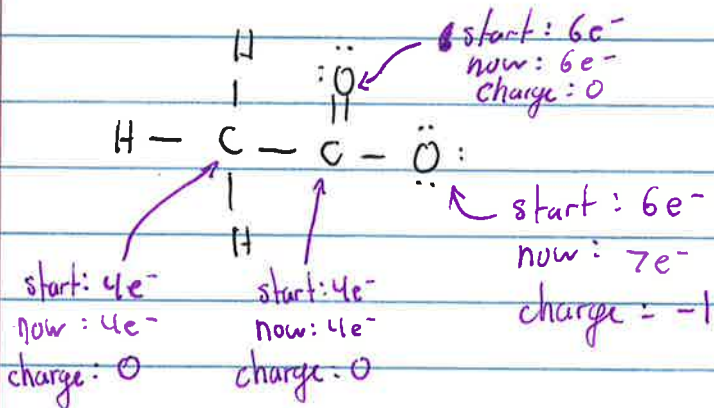
'mostly F chemistry'



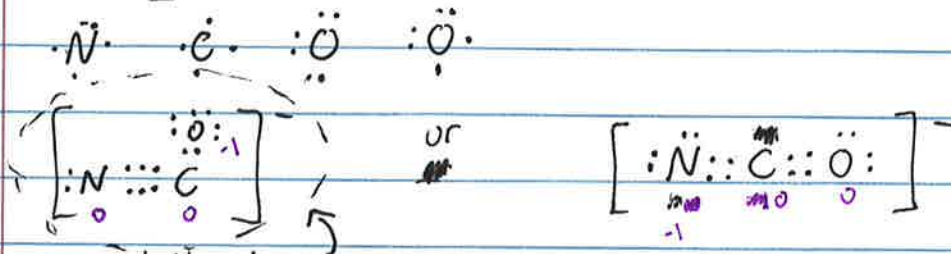


### formal charge

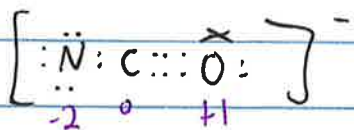
- Compare # valence electrons with the number of electrons each atom now has (divide bonds by 2)

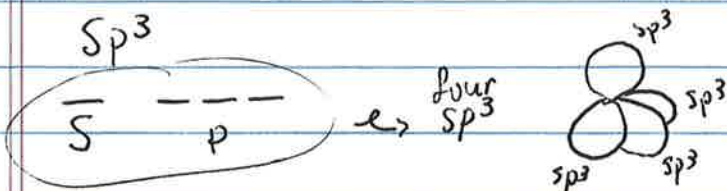


\* Sum of formal charge has to equal molecule charge

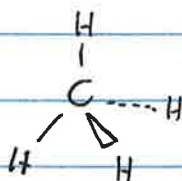
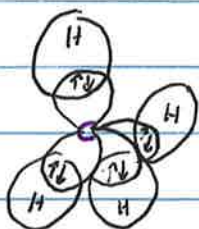


better because  
O is more electronegative  
than N

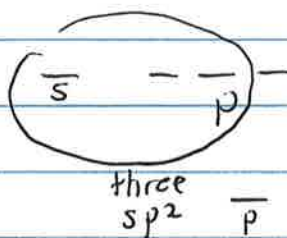
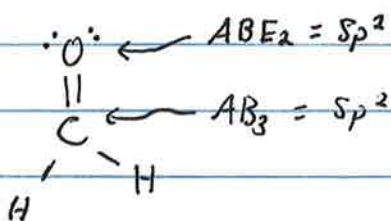




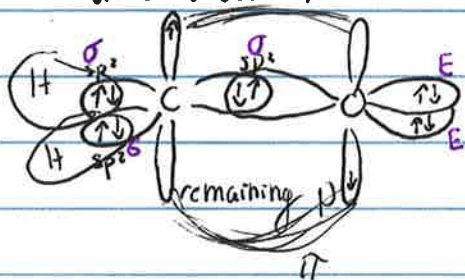
CH<sub>4</sub>



$sp^2$



side view  $\pi$



$\sigma$  (sigma) = single bond

$\sigma + \pi$  = double bond

$\sigma + \pi + \pi$  = triple bond

		bond dissociation E	bond length
C-C	1 $\sigma$	350 kJ/mol	154 pm
C=C	1 $\sigma$ + 1 $\pi$	728 kJ/mol	134 pm
C $\equiv$ C	1 $\sigma$ + 2 $\pi$	965 kJ/mol	120 pm