Q1: Assigning Formal Charge (FC) to each atom

1. Draw Lewis Structure
2. Determine neutral valence of each atom
3. Assign each atom half of bonding electrons + lone pairs
4. FC = valence electrons – lone pair electrons – (1/2) bonding electrons

$[NH_4]^+$

Practice Question 2

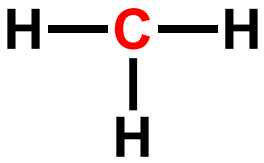
Write the Lewis structure for the following formula:

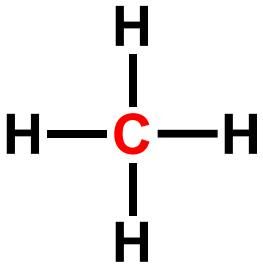
CH_5N

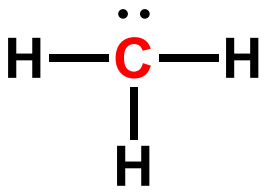
$C_2H_4O_2$

Practice Question 3

Predict the formal charge on each of the highlighted C atom







Practice Question 4

Write the Lewis structure for the following formula:

H_3PO_4

Practice Question 5

Draw the resonance structures for the following molecules. Circle the most contributing structure – describe why this is most contributing?

If all the structures are equally contributing then circle all the resonance structures

NO_3^-

SO_2

Practice VSEPR Question 6

Draw Lewis Structure, and determine the **geometry around the central atom** of the following molecule

HCN

NO_2^-

Practice VSEPR Question 7

Draw the most stable Lewis Structure, determine electron groups (electron geometry), bonding groups (molecular geometry) and shape around highlighted C and N atoms.

CH_3**NC**O

Practice VSEPR Question 8

Draw Lewis Structure, determine electron groups (electron geometry), bonding groups (molecular geometry) and shape (P is the central atom)

$POCl_3$

Practice VSEPR 9 (Concept Video 15)

Draw Lewis Structure, determine electron groups (electron geometry), bonding groups (molecular geometry) and shape

$[ICl_2]^-$

Practice Question 10 (Concept Video 15)
Which of the following molecules have a net dipole moment?

Cl—Cl

$CHCl_3$

C_2H_4

PCl_5