**Mrs. Phillips ‘Technique’ for Determining (fairly simple) Lewis Structures**

\**More complex structures will require finding Formal Charges (coming soon!)*

**Here’s the ‘Process’**:

1- Calculate the # each atom will need for a full octet (or duet, if it’s hydrogen). WANTS

2- Calculate the # of valence e- for each atom. HAS

3- Subtract: Total of #1 – Total of # 2 = The # of Bonding Electrons.

4- Subtract: Total of #2 – Answer from #3 = The # of Non-Bonding Electrons (use them for lone pairs)

5. Put the least electronegative element in the center (unless it’s hydrogen- it can never go in the middle!) and surround it with remaining atoms. Use the answer from #3 & make bonds ***(\*remember: 1 bond = 2e-)***

6- Place nonbonding e- around the appropriate atoms

7- \*If the center atom still doesn’t have an octet, take a lone pair from one of the surrounding atoms and make a bond with the ‘center’ atom. *Happens the most with oxygen. Since it’s very electronegative, it’s almost never a center atom.*

8- If you’re working with an ion, you must: A) add an extra e- to your total if it’s negative; B) subtract an e- from total if it’s positive.

9- If the structure still doesn’t work (meaning you’re violating octet and/ or duet rule), you must calculate formal charges before you go any further. I’ll show you how to do that soon!

Still need help? Try one of the videos linked on my blog