**Step 1:** Calculate the total number of valence electrons

Example: CH4

C=4 valence electrons

H\*4=1 valence electron\*4=4 valence electrons

4+4=8 total valence electrons

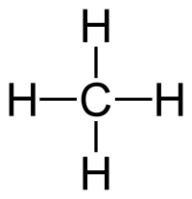
**Step 2:** Pick Central Atom

Atom written first is the center atom

CH4, Carbon is central atom

**Step 3:** Draw Skeletal Structure

Connect atoms with a single bond (2 electrons)



**Step 4:** Subtract electrons used in step 3 from Step 1

For CH4, 8 v.e. - 8 v.e.= 0 Valence electrons

If all electrons are used, then you are done.

For O2, 10 v.e.- 2 v.e.= 8.v.e

If not, then continue with steps

**Step 5:** Calculate number of electrons needed for each atom to have full octet

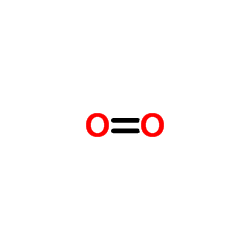
Example O2

6 v.e. +6 v.e. = need12 v.e. Only have 8 valence electrons

If you have the necessary number of valence electrons, then fill each atoms octet

If you are missing valence electrons, then continue the steps

**Step 6:** Draw another bond(2 electrons) connecting to the central atom



**Step 7:** Repeat steps 4-6 until all electrons are drawn

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_

Draw the Lewis Structure for the Following compound

1. CH4
2. H2
3. HF
4. NH3
5. BF3
6. PCl3
7. NI3
8. F2
9. CBr4

10. HCl

11. XeF2

12.PI3

Bonus (Worth 3 Points)

Draw Lewis Structure for SF6