

1a. Describe each type of bonding: What type(s) of elements are involved, and what is happening with the electrons?

**Ionic Bonding:**

**Covalent bonding:**

b. All of the molecules and ions on this worksheet contain at least one \_\_\_\_\_ bond.

2a. Indicate how many valence electrons are in each (**unbonded**) atom

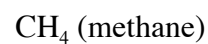
H \_\_\_\_\_ C \_\_\_\_\_ N \_\_\_\_\_ O \_\_\_\_\_ F \_\_\_\_\_ S \_\_\_\_\_ Si \_\_\_\_\_

b. Indicate the number of valence electrons each atom will have **once it is bonded:**

H \_\_\_\_\_ C \_\_\_\_\_ N \_\_\_\_\_ O \_\_\_\_\_ F \_\_\_\_\_ S \_\_\_\_\_ Si \_\_\_\_\_

(Note: Beryllium and Boron will typically bond to get 4 and 6 valence electrons, respectively.....)

3. Draw the Lewis Dot Structure for each molecule or ion. Write the total number of valence electrons next to each picture.





(hydrosulfuric acid... or  
the "rotten egg smell" compound.)



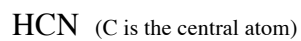
Carbon is the central atom;  
attach the 3 Fluorines and the H to the carbon)



(The  $\text{OCl}^{-1}/\text{ClO}^{-1}$  ion is called "hypochlorite ion,"  
and is the active ingredient in bleach.  
It is also sometimes an ingredient in drain cleaner.)



(hypochlorous acid.  
The O is the central atom.)



(put C in the center and  
attach everything else to the C)



(put C in the center and  
attach the other 3 atoms to the C)

