Name _____ Period _____

College Prep Chemistry of the Earth

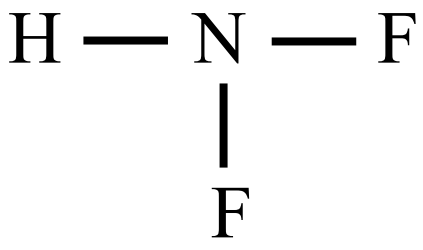
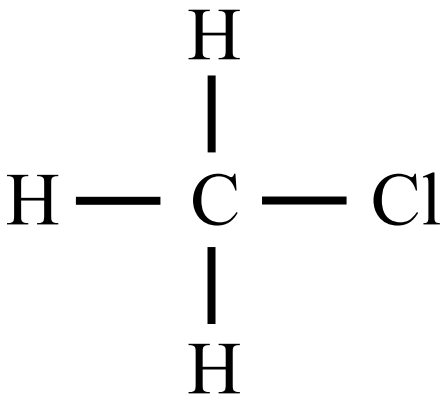
Assignment 3I – Unit 3 Review 20 Points

Complete the following chart for lewis dot structures for both neutral and ion structures

Neutral Atom	Lewis Dot Structure	Valence Electrons
Al		
P		
Br		

Ion	Lewis Dot Structure	Valence Electrons
Al^{3+}		
P^{3-}		
Br^{1-}		

Complete the following chart for lewis dot structures for both neutral and ion structures

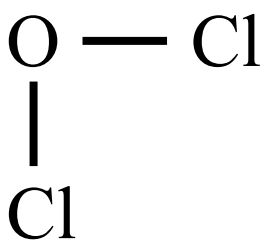
HNF_2				CH_3Cl					
N Val e^-		F Val e^-		C Val e^-		H Val e^-		Cl Val e^-	
Covalent Compound Structural Formula				*Covalent Compound Structural Formula*					
									

Calculate the Electronegativity for the following molecules, and polarity

Ionic – ED > 1.9	Polar – ED 0.5 – 1.9	Non-Polar – ED < 0.5

Fe - Cl		H - P		C - S	
Elect. Fe	Elect. Cl	Elect. H	Elect. P	Elect. C	Elect. S
Electronegativity Difference		Electronegativity Difference		Electronegativity Difference	
Bond Type (*Ionic, Polar, Non-Polar*)		Bond Type (*Ionic, Polar, Non-Polar*)		Bond Type (*Ionic, Polar, Non-Polar*)	

Calculate the electronegativity, then use the electronegativity and molecule structure to determine molecule polarity.

OCl_2		Atomic Structure	
Elect. O	Elect. Cl		
Electronegativity Difference			
		Bond Type	Molecule Type