Name _____ Period _____

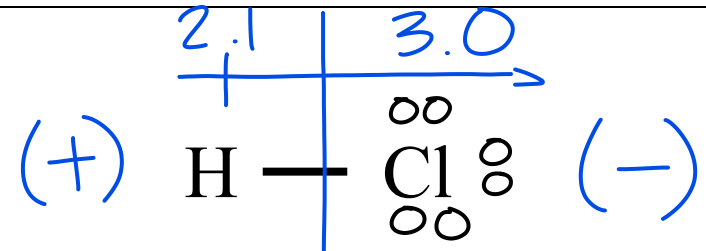
College Prep Chemistry of the Earth

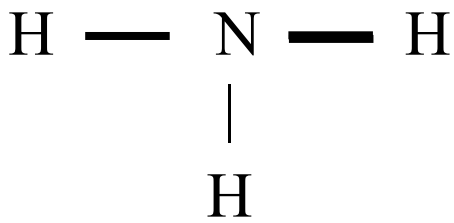
Assignment 3F – Polar and Non-Polar Molecules 20 Points

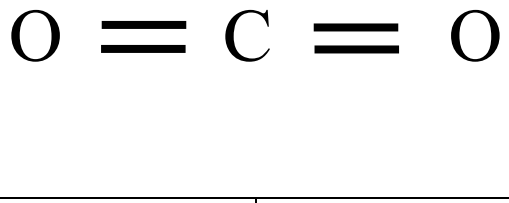
Answer the following questions

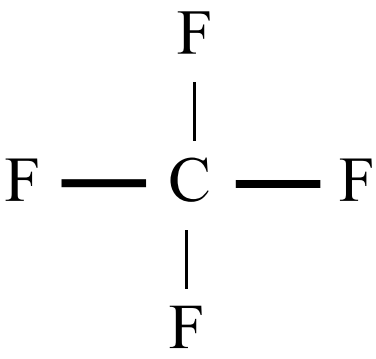
What is a dipole in a molecule?	What is a symmetrical molecule?
How are charges of ionic compounds like dipoles?	What is an asymmetric molecule?

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

HCl		Atomic Structure	
Elect. H	Elect. Cl		
2.1	3.0		
Electronegativity Difference			
ED = 3.0 − 2.1 = 0.9		>0.5 w/ no metal	
Bond Type		Molecule Type	
Polar Covalent		Polar Bond	Polar Molecule

H_3N		Atomic Structure	
Elect. H	Elect. N		
Electronegativity Difference			
Bond Type		Molecule Type	

CO_2		Atomic Structure	
Elect. C	Elect. O		
Electronegativity Difference			
		Bond Type	Molecule Type

CF_4		Atomic Structure	
Elect. C	Elect. F		
Electronegativity Difference			
		Bond Type	Molecule Type

SBr_2		Atomic Structure	
Elect. S	Elect. Br		
Electronegativity Difference			
		Bond Type	Molecule Type