

Name \_\_\_\_\_ Period \_\_\_\_\_

College Prep Chemistry of the Earth

Assignment 3K – 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	<div>H — Cl</div>	
Electronegativity Difference			
		Bond Type	Molecule Type

H <sub>3</sub> N		Atomic Structure	
Elect. H	Elect. N	<div>H — N — H</div> <div> </div> <div>H</div>	
Electronegativity Difference			
		Bond Type	Molecule Type

CO <sub>2</sub>		Atomic Structure	
Elect. C	Elect. O	<div>O = C = O</div>	
Electronegativity Difference			
		Bond Type	Molecule Type

CF <sub>4</sub>		Atomic Structure	
Elect. C	Elect. F	<div><div>F</div><div> </div><div>F — C — F</div><div> </div><div>F</div></div>	
Electronegativity Difference			
		Bond Type	Molecule Type

SBr <sub>2</sub>		Atomic Structure	
Elect. S	Elect. Br	<div>Br — S — Br</div>	
Electronegativity Difference			
		Bond Type	Molecule Type