

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

### CHEMICAL BONDING LAB

Directions: With your group and a periodic table, determine the following characteristics for the compounds listed. Remember, there will be no structural formula, shape name, or molecular polarity for compounds with ionic bonds.

- Calculate the difference in electronegativities and then indicate the type of bond.
- The Electron dot structure requires dots. Draw for both covalent and ionic bonds.
- The structural formula requires dashes for bonds.
- The shapes are linear, bent, trigonal planar, pyramidal, tetrahedral, and double bent.
- Indicate the polarity of the molecule based on its shape.

<b>Molecular Formula</b>	<b>Bond Polarity Show calculation</b>	<b>Electron Dot Structure</b>	<b>Structural Formula</b>	<b>Shape Name</b>	<b>Molecular Polarity</b>
1) HBr					
2) SCl <sub>2</sub>					
3) BCl <sub>3</sub>					
4) AlCl <sub>3</sub>					

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<b>Molecular Formula</b>	<b>Bond Polarity</b> Show calculation	<b>Electron Dot Structure</b>	<b>Structural Formula</b>	<b>Shape Name</b>	<b>Molecular Polarity</b>
5) $\text{CHCl}_3$					
6) $\text{PH}_3$					
7) $\text{CaO}$					
8) $\text{C}_2\text{H}_2$					
9) $\text{H}_2\text{O}_2$					
10) $\text{CH}_2\text{O}$					