

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

## Molecular Models Activity

**Purpose:** to use molecular model kits to determine the geometry (shape) and polarity of molecules.

**Procedure:**

1. Draw the Lewis Structure.
2. Build the molecule using the model kit.
3. Complete the remaining information for each compound in the chart below.
4. Answer the discussion questions.

#	Molecular Formula	Lewis Structure	Draw the Molecular Shape (Geometry)	Name of Molecular Shape	Bond Polarity	Molecular Polarity	IMF
1	BrCl						
2	NH <sub>3</sub>						
3	CH <sub>4</sub>						
4	PCl <sub>3</sub>						

#	Molecular Formula	Lewis Structure	Draw the Molecular Shape (Geometry)	Name of Molecular Shape	Bond Polarity	Molecular Polarity	IMF
5	CO <sub>2</sub>						
6	CH <sub>2</sub> O						
7	CH <sub>3</sub> Cl						

**Discussion Questions:**

1. Describe the relationship between the strength of intermolecular forces and melting/boiling points.
2. Which substance(s) from the activity would have the highest boiling point? Explain your reasoning.
3. Water is a polar molecule. Which substances from the activity will dissolve in water? Explain your reasoning.