

Name: _____ Period: _____

Molecule Building

1. Draw Lewis diagrams for each of the molecules listed below.
2. Use molecular modeling kits to build the molecules. Make sure your model is consistent with the number and types of bonds in the Lewis diagram.
3. After all models are constructed, sketch the 3D shape of the molecule and sort the molecules into categories based on shape and Lewis diagram. You must have at least two and no more than six categories. A category may be represented by only one molecule.
4. Be prepared to justify your categories with a list of characteristics that the molecules in each category have. Shape names, bond angle and polarity will be added to the table later.

Molecule	Lewis Diagram	3D Sketch	Polarity	Shape Name and bond angle
H ₂ O				
SF ₆				
CH ₂ O				
NH ₃				
SO ₂				
XeF ₂				

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Molecule	Lewis Diagram	3D Sketch	Polarity	Shape Name
CO ₂				
PCl ₅				
BeH ₂				
BF ₃				
XeF ₄				
CH ₄				
ClF ₃				
BrF ₅				

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