

Molecular Modeling Practice

Objective:

To practice using the molecular model kits as a tool for determining the molecular shape and polarity of a covalent compound.

Procedure:

1. Draw a Lewis Dot Structure for each molecule in the table.
2. Predict the shape using VSEPR Theory.
3. Build a model using the model kit. If needed, [here is an electronic model kit](#) that can be used to visualize compound shape if the physical kit is not available.
4. Use the model to predict polarity. Look for symmetry.

Molecules:

H ₂	H ₂ CO
HBr	C ₂ H ₂
H ₂ O	CH ₃ Cl
PH ₃	HCOOH
CH ₄	HCN
HClO	H ₂ O ₂
N ₂	

Make a table like the one below:

Formula	LDS	VSEPR Formula	VSEPR Shape (draw)	Polar or Nonpolar