

Section 6.4 Complete the following table in your class notebook with the heading: Molecular Geometry

Valence e- Total	Lewis Dot Structure	Molecular Shape & Bond Angle	Name of Shape	Molecular Polarity
PCl_3 $[26]$	$\begin{array}{c} \text{:}\ddot{\text{Cl}}\text{:} - \ddot{\text{P}} - \text{:}\ddot{\text{Cl}}\text{:} \\ \\ \text{:}\ddot{\text{Cl}}\text{:} \end{array}$		Pyramidal	polar
H_2S $[8]$				
CBr_4 $[32]$	$\begin{array}{c} \text{:}\ddot{\text{Br}}\text{:} \\ \\ \text{:}\ddot{\text{Br}} - \text{C} - \text{:}\ddot{\text{Br}}\text{:} \\ \\ \text{:}\ddot{\text{Br}}\text{:} \end{array}$		Tetrahedral	Nonpolar
BrCN $[16]$				
SO_3^{2-} $[26]$	$\left[\begin{array}{c} \text{:}\ddot{\text{O}}\text{:} - \ddot{\text{S}} - \text{:}\ddot{\text{O}}\text{:} \\ \\ \text{:}\ddot{\text{O}}\text{:} \end{array} \right]^{2-}$		Pyramidal	polar
C_2F_2 $[22]$				
C_2H_4 $[12]$	$\begin{array}{c} \text{H} & \text{H} \\ & \\ \text{C} = & \text{C} \\ & \\ \text{H} & \text{H} \end{array}$		Trigonal planar	Nonpolar

(over)

Valence e- Total	Lewis Dot Structure	Molecular Shape & Bond Angle	Name of Shape	Molecular Polarity
BF ₃ [24]				
OF ₂ [20]			Bent	polar
O ₃ [18]				
NO ⁺ [10]			Linear	polar
PO ₃ ⁻ [24]				
H ₂ SO ₄ [32]			^S Tetrahedral Bent	polar
H ₂ CO ₃ [24]				
HC ₂ H ₃ O ₂ [24]				