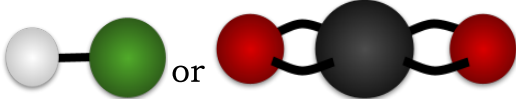
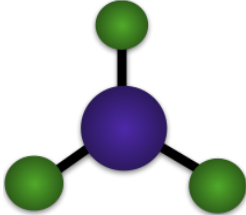
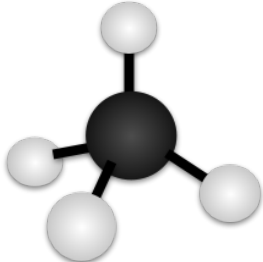
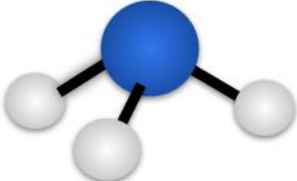
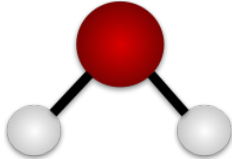


Small Molecule Shapes

Shape (and structural formula example)	# of atoms bonded to central atom	# of unshared pairs of electrons on central atom	Bond angle	Picture	Hybrid Orbital
Linear HCl or CO ₂ $\text{H}-\ddot{\text{Cl}}:$ or $:\ddot{\text{O}}=\text{C}=\ddot{\text{O}}:$	1 or 2	0	180°		sp
Trigonal Planar BCl ₃ $\begin{array}{c} :\ddot{\text{Cl}}: \\ \\ :\ddot{\text{Cl}}-\text{B}-\ddot{\text{Cl}}: \\ \\ :\ddot{\text{Cl}}: \end{array}$	3	0	120°		sp ²
Tetrahedral CH ₄ $\begin{array}{c} \text{H} \\ \\ \text{H}-\text{C}-\text{H} \\ \\ \text{H} \end{array}$	4	0	109.5°		sp ³
Pyramidal NH ₃ $\begin{array}{c} \text{H}-\ddot{\text{N}}-\text{H} \\ \\ \text{H} \end{array}$	3	1	107°		sp ³
Bent H ₂ O $\begin{array}{c} \ddot{\text{O}} \\ / \quad \backslash \\ \text{H} \quad \text{H} \end{array}$	2	2	105°		sp ³