

The VSEPR Model

Determining the molecular shape around a central atom
Electron Domain: single bond, double bond, triple bond, or lone pair

Electron Domains	Bonding	Non-Bonding	Shape Name and Bond Angle	Example	Lewis Structure	Shape
4	4	0	Tetrahedral 109.5°	CH ₄		
	3	1	Trigonal Pyramidal ~107°	NH ₃		
	2	2	Bent ~104.5°	H ₂ O		
	1	3	Linear 180°	HBr		
3	3	0	Trigonal Planar 120°	SO ₃		
	2	1	Bent ~119°	SO ₂		
	1	2	Linear 180°	O ₂		
2	2	0	Linear 180°	CO ₂		
	1	1	Linear 180°	N ₂		