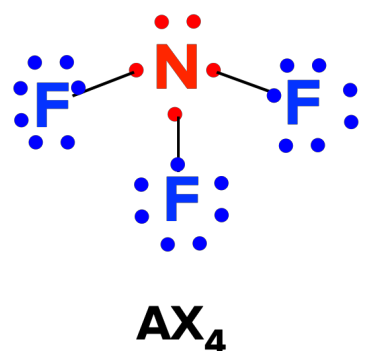


MOLECULAR & ELECTRON GEOMETRIES

When drawing a Lewis Dot Structure you have to take into account 2 different systems of geometrical shape.

ELECTRON GEOMETRY

The **Electron Geometry** or **Orbital Shape** treats surrounding elements and lone pairs on the central element as the same.

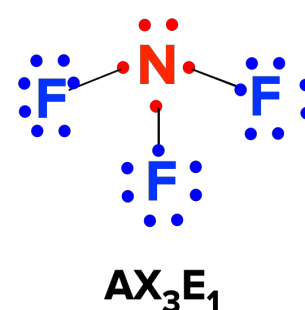


A = Central Element

X = Surrounding elements & Lone pair(s) on central element

MOLECULAR GEOMETRY

The **Molecular Geometry** treats surrounding elements and lone pairs on the central element as different.



A = Central Element

X = Surrounding elements

E = Lone pair(s) on central element

The highlighted molecular examples represent "perfect" shapes that are nonpolar as long as:

- The central element is connected to the same surrounding elements.
- The surrounding elements are more electronegative than the central element.

A wedged bond () points out of plane of paper.

A dashed bond () points into plane of paper.

A straight bond () lies on plane of paper.

Domain	0 lone pairs	1 lone pair	2 lone pairs	3 lone pairs
2	<p><i>Electronic: AX₂ - Linear</i> <i>Molecular: AX₂ - Linear</i></p>			
3	<p><i>Electronic: AX₃ - Trigonal Planar</i> <i>Molecular: AX₃ - Trigonal Planar</i></p>	<p><i>Electronic: AX₃ - Trigonal Planar</i> <i>Molecular: AX₂E₁ - Bent or V-Shaped</i></p>		
4	<p><i>Electronic: AX₄ - Tetrahedral</i> <i>Molecular: AX₄ - Tetrahedral</i></p>	<p><i>Electronic: AX₄ - Tetrahedral</i> <i>Molecular: AX₃E₁ - Trigonal Pyramidal</i></p>	<p><i>Electronic: AX₄ - Tetrahedral</i> <i>Molecular: AX₂E₂ - Bent or V-Shaped</i></p>	
5	<p><i>Electronic: AX₅ - Trigonal Bipyramidal</i> <i>Molecular: AX₅ - Trigonal Bipyramidal</i></p>	<p><i>Electronic: AX₆ - Octahedral</i> <i>Molecular: AX₆ - Octahedral</i></p>	<p><i>Electronic: AX₅ - Trigonal Bipyramidal</i> <i>Molecular: AX₃E₂ - T-Shaped</i></p>	<p><i>Electronic: AX₅ - Trigonal Bipyramidal</i> <i>Molecular: AX₂E₃ - Linear</i></p>
6	<p><i>Electronic: AX₆ - Octahedral</i> <i>Molecular: AX₆ - Octahedral</i></p>	<p><i>Electronic: AX₆ - Octahedral</i> <i>Molecular: AX₅E₁ - Square Pyramidal</i></p>	<p><i>Electronic: AX₆ - Octahedral</i> <i>Molecular: AX₄E₂ - Square Planar</i></p>	