

WKS: Additional
Lewis Structures-VSEPR

NAME _____
Period _____ **Date** _____

Determine the number of valence electrons and draw the Lewis structures for the following molecules or polyatomic ions. Determine the Electron & Molecular Geometries using VSEPR, then draw the 3D structure. Lewis structures must contain ALL valence electrons, but the 3D drawing does not need the lone pairs on single-bonded terminal atoms.

Formula & # val. e ⁻	Lewis Structure (Show ALL electrons)	Electron & Molecular Geometries	3D Drawing (Omit lone pairs on single-bonded terminal atoms)	Bond Angle
1. H ₂ S				
2. CHFO (C is central)				
3. NO ₃ ⁻				
4. NBr ₃				
5. CH ₃ I				
6. SiO ₃ ²⁻				

Formula & # val. e ⁻	Lewis Structure (Show ALL electrons)	Electron & Molecular Geometries	3D Drawing (Omit lone pairs on single-bonded terminal atoms)	Bond Angle
7. N ₂ O (Arranged N-N-O)				
8. SiO				
9. BeF ₂ *				
10. BCl ₃ *				
11. SO ₃ ²⁻				
12. ClNO (Cl-N-O)				
13. SCO (C central)				

*B & Be are exceptions to the Octet Rule: they can be “satisfied” with fewer electrons.