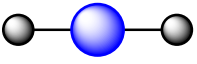
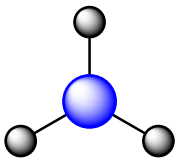
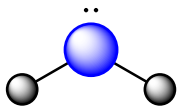
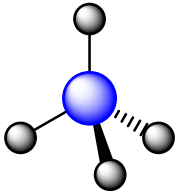
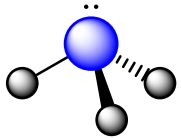
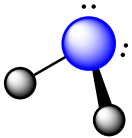
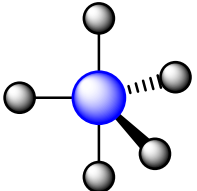
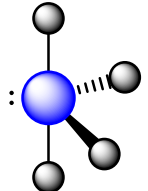
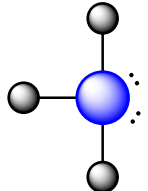
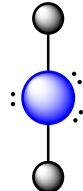




Chem 1010/1800 Tip Sheet

VSEPR Theory

Valence shell electron pair repulsion (VSEPR) theory is a tool we use to predict the shapes of molecules based on how many bonds or lone pairs exist around the central atom. We call these bonds and lone pairs charge clouds (CCs), and since they are made up of electrons, they will repel each other. For this to happen, the charge clouds will arrange themselves in predictable ways:

# of CCs	Hybridization	0 lone pairs	1 lone pair	2 lone pairs	3 lone pairs
2	sp	 linear			
3	sp ²	 trigonal planar	 bent		
4	sp ³	 tetrahedral	 trigonal pyramidal	 bent	
5	sp ³ d	 trigonal bipyramidal	 see-saw	 T-shaped	 linear

For more information or to book an appointment

Call: 905.721.8668 ext. 6578

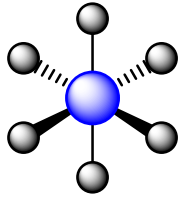
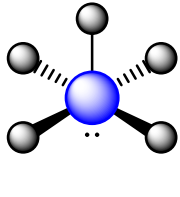
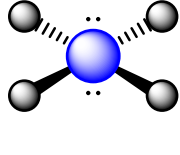
Email: studentlearning@uoit.ca

Website: ontariotechu.ca/studentlearning

North location: Student Life Building

Downtown location: 61 Charles St.



6	sp^3d^2	 octahedral	 square pyramidal	 square planar	
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