

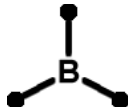
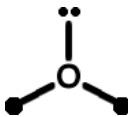
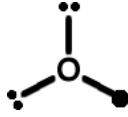

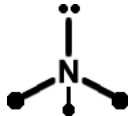

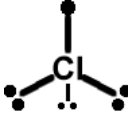


Molecular Shapes Using VSEPR

Alan D. Earhart

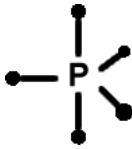
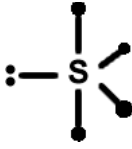
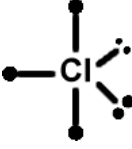
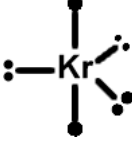
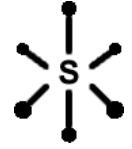
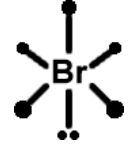
General Chemistry I

# of Structural Pairs (Electronic Structure)	# of Sigma Bonding Groups	# of Lone Pair Groups	General Formula	Shape	Example	Projection Model
2	2	0	AB ₂	Linear	CO ₂	
	1	1	AB	Linear	CO	
3	3	0	AB ₃	Trigonal Planar	BF ₃	
	2	1	AB ₂	Bent	O ₃	
	1	2	AB	Linear	O ₂	
4	4	0	AB ₄	Tetrahedral	CCl ₄	
	3	1	AB ₃	Trigonal Pyramidal	NH ₃	
	2	2	AB ₂	Bent	H ₂ O	
	1	3	AB	Linear	HCl	

Molecular Shapes Using VSEPR

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General Chemistry I

# of Structural Pairs (Electronic Structure)	# of Sigma Bonding Groups	# of Lone Pair Groups	General Formula	Shape	Example	Projection Model
5	5	0	AB_5	Trigonal Bipyramidal	PCl_5	
	4	1	AB_4	Seesaw	SF_4	
	3	2	AB_3	T-Shaped	ClF_3	
	2	3	AB_2	Linear	KrF_2	
6	6	0	AB_6	Octahedral	SF_6	
	5	1	AB_5	Square Pyramidal	BrF_5	
	4	2	AB_4	Square Planar	XeF_4	