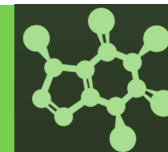
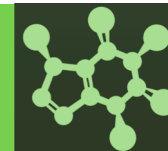


VSEPR charts (1)



Number of regions	Two regions of high electron density (bonds and/or unshared pairs)	Three regions of high electron density (bonds and/or unshared pairs)	Four regions of high electron density (bonds and/or unshared pairs)	Five regions of high electron density (bonds and/or unshared pairs)	Six regions of high electron density (bonds and/or unshared pairs)
Spatial arrangement	 180° sp	 120° sp^2	 109.5° sp^3	 90° 120° sp^3d	 90° 90° sp^3d^2
Line-dash-wedge notation	$H-Be-H$				
Electron pair geometry	Linear; 180° angle	Trigonal planar; all angles 120°	Tetrahedral; all angles 109.5°	Trigonal bipyramidal; angles of 90° or 120° An attached atom may be equatorial (in the plane of the triangle) or axial (above or below the plane of the triangle).	Octahedral; all angles 90° or 180°

VSEPR charts (2)



atoms bonded to the central atom

	Number of electron pairs	Electron pair geometries: 0 lone pair	1 lone pair	2 lone pairs	3 lone pairs	4 lone pairs
sp	2	<p>180° Linear</p>				
sp ²	3	<p>120° Trigonal planar</p>	<p><120° Bent or angular</p>			
sp ³	4	<p>109° Tetrahedral</p>	<p>X < 109° Trigonal pyramid</p>	<p><<109° Bent or angular</p>		
sp ³ d	5	<p>90° 120° Trigonal bipyramid</p>	<p><90° <120° Sawhorse or seesaw</p>	<p><90° T-shape</p>	<p>180° Linear</p>	
sp ³ d ²	6	<p>90° Octahedral</p>	<p>X < 90° <90° Square pyramid</p>	<p>90° Square planar</p>	<p>X < 90° T-shape</p>	<p>180° Linear</p>

VSEPR charts (3)



# lone e- pr	# atoms bonded	e- pair geometry		Molecular geometry	Bond Angle (°)
0	2	linear	sp	linear	180
0	3	trigonal planar	sp^2	trigonal planar	120
1	2	trigonal planar		bent	< 120
0	4	tetrahedral	sp^3	tetrahedral	109.5
1	3	tetrahedral		trigonal pyramidal	< 109.5
2	2	tetrahedral		bent	< 109.5
0	5	trigonal bipyramidal	sp^3d	trigonal bipyramidal	90, 120, 180
1	4	trigonal bipyramidal		seesaw	90, 120, 180
2	3	trigonal bipyramidal		T-shaped	90, 180
3	2	trigonal bipyramidal		linear	180
0	6	octahedral	sp^3d^2	octahedral	90, 180
1	5	octahedral		square pyramidal	90, 180
2	4	octahedral		square planar	90, 180