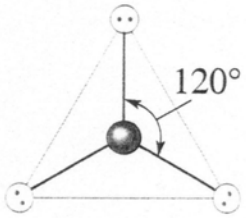
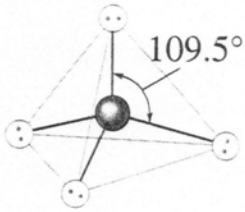
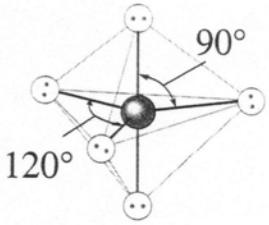
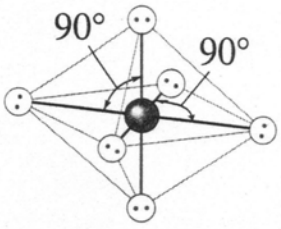
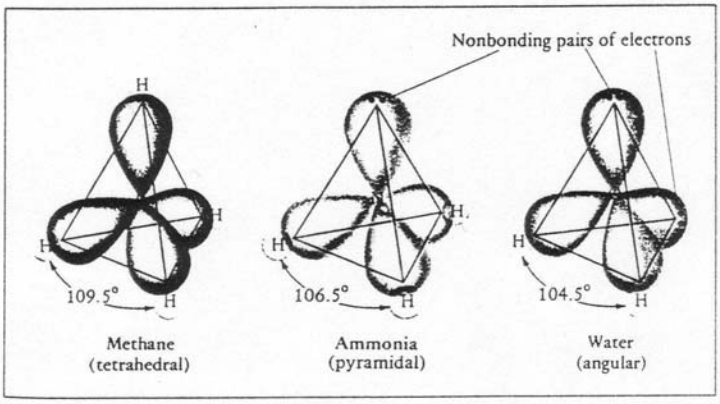
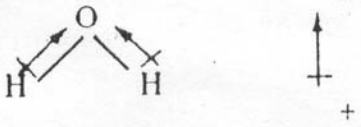
Arrangements of VSEPR Pairs Around a Central Atom

Number of VSEPR Electron pairs	Arrangement of VSEPR pairs	Shape
2	 (a)	Linear
3	 (b)	Trigonal planar
4	 (c)	Tetrahedral
5	 (d)	Trigonal bipyramidal
6	 (e)	Octahedral

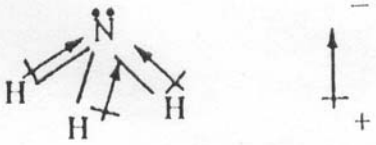
Lone Pairs and Molecular Polarity



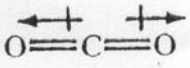
Water μ = 1.85D



Ammonia μ = 1.47D

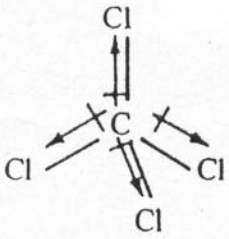


Carbon dioxide μ = 0



No dipole

Carbon tetrachloride μ = 0



No dipole

Chloroform μ = 1.01D