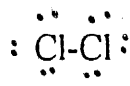
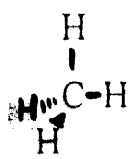
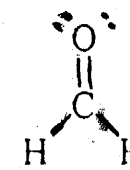
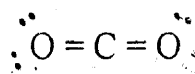
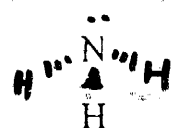
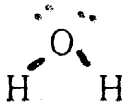


Valence Shell Electron Pair Repulsion theory (VSEPR)

- the shape of molecules is determined by the repulsion among electron pairs in the valence shell around the central atom

- pairs of electrons are distributed around the central atom so that repulsions between the electrons are minimized ie. each pair is as far away as possible from any other pair

Example	# atoms bonded to central atom	# lone e pairs on central atom	shape
Cl ₂	—	0	 Linear
CH ₄	4	0	 Tetrahedral
CH ₂ O	3	0	 Trigonal planar
CO ₂	2	0	 Linear
NH ₃	3	1	 (trigonal pyramidal) Trigonal non-planar
H ₂ O	2	2	 Bent