

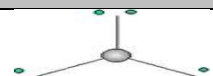

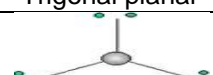





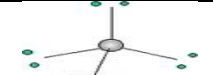






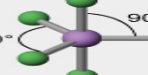

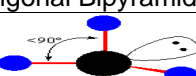

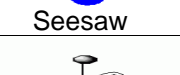



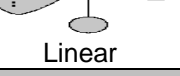


Valence shell electron pair repulsion (VSEPR) Structures for Molecules and Ions

| Electron Domains | Bonding domains (B) | Lone pair domains (E) | Bond angle | VSEPR notation | Electron Domain Geometry | Molecular Geometry (shape) |
|------------------|---------------------|-----------------------|---------------|--------------------------------|--|---|
| 2 | 2 | 0 | 180° | AB ₂ |  Linear |  Linear |
| 3 | 3 | 0 | 120° | AB ₃ |  Trigonal planar |  Trigonal planar |
| 3 | 2 | 1 | <120° | AB ₂ E |  Trigonal planar |  Bent |
| 4 | 4 | 0 | 109.5° | AB ₄ |  Tetrahedral |  Tetrahedral |
| 4 | 3 | 1 | <109.5° | AB ₃ E |  Tetrahedral |  Trigonal pyramidal |
| 4 | 2 | 2 | <109.5° | AB ₂ E ₂ |  Tetrahedral |  Bent |
| 5 | 5 | 0 | 90° and 120° | AB ₅ |  Trigonal Bipyramidal |  Trigonal Bipyramidal |
| 5 | 4 | 1 | >90° <120° | AB ₄ E |  Trigonal Bipyramidal |  Seesaw |
| 5 | 3 | 2 | <90° | AB ₃ E ₂ |  Trigonal Bipyramidal |  T-shaped |
| 5 | 2 | 3 | 180° | AB ₂ E ₃ |  Trigonal Bipyramidal |  Linear |
| 6 | 6 | 0 | 90° | AB ₆ |  Octahedral |  Octahedral |
| 6 | 5 | 1 | <90° | AB ₅ E |  Octahedral |  Square pyramidal |
| 6 | 4 | 2 | 90° | AB ₄ E ₂ |  Octahedral |  Square Planar |