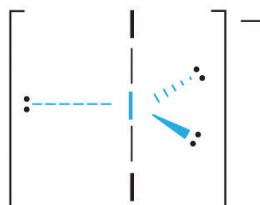


3. Chemical Bonding

- A pair of electrons (bond pair) has greater repulsion power than an unpaired electron.
- A sigma bond is formed when valence orbitals overlap head-on while a pi bond is formed when valence orbitals overlap side-on.
- Across period three, hydroxides go from basic to acidic due to (1) increasing electronegativity which leads to the difference in bonding between the elements and the hydroxide.
 - Increase in electronegativity across period 3, therefore decreasing difference in electronegativity, hydroxide becomes smaller → resulting in bonding changing from ionic to covalent
 - Ionic are basic because of the presence of OH⁻ ions
 - Covalent oxides are acidic because the partially positive elements interact with water, causing the release of H⁺ ions.
- I³⁻ is linear and symmetrical



- Sp²-sp² no delocalisation, sp³-sp² delocalisation