CHEMICAL BONDS

To attain the stable electron arrangement of the noble gases

Hydrogen bond
Formed between hydrogens that are bonded to a very electronegative atom in a molecule with an atom that has unpaired electrons

Metallic bond
Bonds in metals formed between positive cations and delocalised electrons in the metallic lattice

Good electrical and heat conductors in solid and liquid states

Formed by the transfer of electrons from metal atoms to non-metal atoms

Formed by the sharing of electrons between non-metal atoms

Ionic bond
Electrostatic force of attraction between cations and anions

Covalent bond
Sharing of electrons contributed by atoms involved

Dative bond
Sharing of electrons contributed by only one atom

Differences in physical properties

Melting and boiling points

Solubility

Electrical conductivity