

Chemical Bonds

Metallic Bonding

They are free to move

Electrons are delocalised

Occurs between two metals and the electrostatic force between the 'sea' of delocalised electrons and the positive nucleus of the metal

Good conductors of electricity

Covalent Bonding

Occurs between two non metals

Electrons are shared between two elements

To form complete shells

Strong bonds

High melting points

Ionic Bonding

Occurs between a nonmetal and a metal

The metal atom loses an electron and becomes a positive ion

The non-metal atom gains an electron and becomes a negative ion

Electrostatic attraction occurs

Strong bonds

High melting points