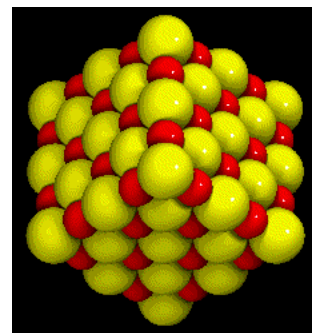


7 • How Do Atoms Stick Together

SOLIDS & PROPERTIES

There are **three types of bonds**, but **four types of solids** held together with these bonds.

Lattice: a repeating pattern, like a lattice-work fence. In solids, it is a repeating pattern of atoms. All solids are made up of a lattice. The points of the lattice are different in different types of solids.



The three types of bonds are:

Type of Bond:	Ionic	Metallic	Covalent
Description of the bond:	A lattice of positive and negative ions in a repeating pattern. The opposite charges attract each other.	A lattice of positive ions in a “sea of electrons”. The ions are attracted to the electrons which hold all the ions together.	Two atoms sharing one, two, or three pairs of electrons between them. The electrons are strongly attracted to both nuclei.
Draw the bond:			

Solids	Molecular	Metallic	Ionic	Covalent Network
Bonds Used:				
Examples:				
MP/BP (high or low)				
Conductivity (s), (l), (aq)				
Malleability				