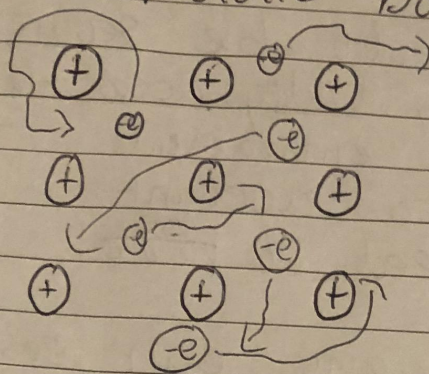


Materials & Processing

Question 2

a) metallic bonding



-e (Negative electrons) are thought to be like a cloud moving freely between positive charged ions.

Strength of a metallic bond is determined by electron sharing which bonds the positive metal ions together, a metal with a valency of 2 will have a stronger bond between ions as more electrons are ~~created~~ creating the bond compared to a metal with valency of 1.

B) FCC is a ~~face~~ lattice with atoms in each corner and faces.

BCC is a lattice with atoms in each corner and one atom in the center.

HCP is a lattice with atoms in all hexagonal corners, one on top and bottom and 3 in the center.