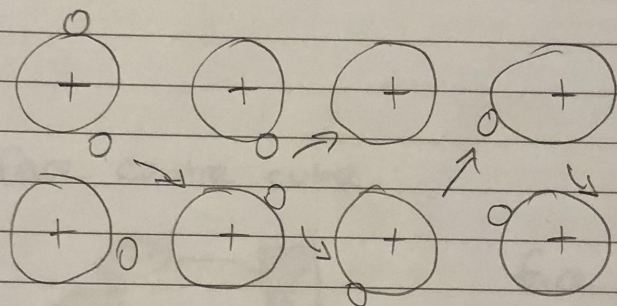


Question 2.

- a) Metallic bonding is the movement of electrons between metal atoms. Metal atoms have outer shells with electrons in them, they are free to move (this is known as delocalised).

Metallic bonds are what gives metal its mechanical properties, such as strength, ductility, and also electrical conductivity (electron flow is electricity).



When the outer shells, or electron orbitals, overlap, electrons are shared between the atoms, hence electron movement.

Valency is related to how many electrons there are in the outer shell, ~~the~~ electron orbital, and how they react with other electrons.

So, a metal with a valency of 2 is stronger than metals with a valency of 1 because it has twice the combining power, as ~~a~~ a valency of 2 is double the valency of 1, its bond is stronger.