HW
23/09/21

Ch-3 Matter

1) How gases can be liquified?

Ans Gases can be liquified by applying pressure and reduce of temperature or by the process of condensation or liquidification.

2) What is sublimation? Give two examples.

Ans The change of state of matter from solid to gas directly by skipping the liquid state on heating is called sublimation. Example → Camphor, iodine.

3) Give reasons :-

i) Liquids and gases can flow but solids do not flow.

Ans Liquids and gases can flow because they are loosely packed. There is more intermolecular space in liquids than solids and the intermolecular space is the most in gases.
Solids do not flow because they are very tightly packed having very less or no intermolecular space.
That is why, liquids and gases flow but solids do not flow.

ii) The odour of scent spreads in a room.

Ans In air, there is the most intermolecular space. The scent molecules easily get mixed with the air and the odour of scent spreads in a room.

iii) We can walk through air.

Ans We can walk through air because the forces of attraction between the air particles is very small and thus the intermolecular ~~force of~~ space is the most.

iv) Liquids have definite volume but no definite shape.

Ans Liquids have definite volume but no definite shape because the intermolecular force of attraction in liquids are not as strong as it is in solids, so they are loosely packed and are not fixed. The molecules can move ~~freely~~ over on another, within the boundary of the liquid.

v) When a teaspoon of sugar is added to half a glass of water and stirred, the water level in the glass remains unchanged.

Ans As we know that ~~water~~ there is more intermolecular space in water. When the sugar particles are added to water, it has filled up the spaces between the molecules of water. That is why the water level do not increase and remain unchanged.

vi) A red ink drop added to small amount of water in a glass turns the water red in some time.

Ans A red ink drop added to small amount of water in a glass turns the water red in some time because its particles diffuse with particles of water slowly but continously and the water turns red.

vii) Why is an egg kicked out of a bottle when air is blown inside the bottle?

Ans The egg is kicked out of a bottle when air is blown the bottle because ~~ethere~~ there is higher ~~pressure~~ inside the bottle and is lower pressure outside the bottle.

viii) When an empty gas jar is ~~converted~~ inverted over a gas jar containing a coloured gas, the gas also spreads into the empty jar.

Ans When an empty gas jar is inverted over a gas jar containing a coloured gas, the gas also spreads into the empty jar because gases diffuse very fast as there is the most intermolecular space and least intermolecular force of attraction.