

Homework

1. ~~A~~ The process by which a gas changes into its liquid state is called condensation or liquefaction.

This process occurs when a liquid gas is ~~gas~~ cooled. When the gas gets cooled, the energy between the particles decreases and their movement slows down. The gaps between the particles decrease and the force of attraction increases. As a result, the gas changes into its liquid form.

2. The process by which a solid changes ~~sub~~ into its gaseous ~~g~~ state without undergoing the liquid state is called sublimation. Ex: iodine, camphor, naphthalene balls etc.

3. a) The intermolecular space between the ~~molecules~~ molecules of a liquid ~~and~~ and gases is more than that in a solid and the intermolecular force of attraction between them is less than that in solids. Hence, liquids and gases flow but solids do not.

b) When the bottle is inverted and we start blowing air into it, it gets kicked out of the bottle ~~but~~ because the characteristic of air is that it flows from high pressure to low pressure. So, when we blow air inside the bottle, a high pressure is created inside the bottle. So, the egg is kicked out of the bottle. ~~so~~

~~x~~ It is so because of diffusion. Gases ~~diffuse~~ diffuse very easily, ^{hence} the odour of scent spreads in a room.

~~x~~ We can walk through air because gases are the least viscous

c) Gases have enough space between them which ~~it~~ allows them to ~~more~~ easily move and mix-up. Hence, Gases diffuse easily. So, the odour of scent spreads in a room.

d) ~~The~~ Gases are the least viscous because the intermolecular space is ~~is~~ the most and the intermolecular force of attraction is the least. So, gases are less viscous than liquids.

Hence, we can walk through air.

- e) The intermolecular force of attraction between the molecules of liquids is less than that in solids and the intermolecular space is more than that in solids. Hence, liquids have a definite volume but no definite shape. It acquires the ~~own~~ shape of the vessel in which it is ~~kept~~ kept.
- f) Water is a liquid. Hence, the ~~is~~ molecules ~~of~~ of water have intermolecular space between them. So, the sugar particles get adjusted between the water molecules. Hence, the volume of water does not change.
- g) When an empty gas jar is inverted over a gas jar containing a coloured gas, the gas also spreads into the empty jar because of diffusion. Gases diffuse very easily because the intermolecular space between the molecules of gases is the most.
- h) ~~This~~ This happens because of diffusion. Liquids diffuse slower than gases because the intermolecular ~~is~~ space between the molecules of ~~the~~ liquids is less than that in gases.