

28/sep/21

Chemistry (H.W.)

CH-3 Matter

Q1 Explain how gases can be be liquified?

Ans The process occurs when a gas is cooled because on cooling, ~~the~~ the energy of particles ~~decrease~~ decreases and their movement becomes slow. The gaps between the particles decrease and ~~the~~ the force of attraction between them increases, as a result they change from gas to liquid.

Q2 What is sublimation? Give 3 examples.

Ans sublimation is ~~a~~ the conversion of a substance from the solid state to the gaseous state without ~~is~~ its becoming liquid. Some examples of sublimation are dry ice, camphor and naphthalene balls.

Q3 Give reasons.

(a) Liquids and gases flow but solids do not?

Ans The molecules of solid are very

tightly packed so that they can not flow but the molecules of liquid and gas are less tightly packed.

Q3

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

Ans Air expands when heated and contracts when it is cooled. When air is blown into the bottle through the sides, by keeping egg the bottle inverted, the air pressure inside the bottle will increase and will push the egg and excess air out of the 'mouth' of the bottle.

(c) The odour of scent spreads in a room

Ans Scent molecules being gases fill the spaces between air molecules and the molecules of air fill the spaces between scent molecules due to diffusion, the molecules spread into a room.

(d) We can walk through air.

Ans We can walk through the air because the molecules in the air are loosely packed with one another, so when we move, the loosely packed molecules give way to the tightly packed molecules of our ~~in~~ i.e. our body.

(e) Liquids have definite volume but no definite shape.

Ans Liquids have definite volume but no definite shape as they acquire the shape of the vessel in which they are kept.

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

Ans When a teaspoon of sugar is added to half a glass of water and stirred, the water level in the glass remains unchanged because the sugar particles are adjusted between the water molecules as inter-molecular gaps are more in liquid.

(g) When ~~an~~ an empty gas jar is inverted over a gas jar containing coloured

gas, the gas also ~~sen~~ spreads into the
the ~~no~~ empty jar.

Ans This is because gases can ~~differ~~ diffuse
or flow in all directions.

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

~~Ans A red ink drop added to~~

Ans If we put a drop of red ink in
a glass of water, its particles
of water slowly but continuously and the
water turns red.

X