

1. How gases can be liquified?

Ans- Gases can be liquified by cooling them.

2. What is sublimation? Give examples.

Ans- The process by which a solid changes into gas directly without changing to its liquid state is called sublimation. E.g. Camphore, dry ice etc.

3. Give reasons

a) Liquids and gases flow but solids do not.

Ans- Liquids and gases flow but solids do not because ~~they have~~ they have less more intermolecular space between them and the intermolecular force of attraction (cohesive force) is less between their molecules as compared to solids, so, the molecules of liquids and gases can freely move to and fro but molecules of solids do not because ~~the~~ of less intermolecular space and more cohesive force between particles.

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

Ans- When we invert the bottle and blow air from its side opening, the egg is kicked out because

of the high pressure created by air inside it.

c) The odour of a scent spreads in a room.

Ans- As, the gases have ~~least~~<sup>most</sup> intermolecular space, and least intermolecular force of attraction, their molecules are free to move anywhere and diffusion occurs very fast. So, due to <sup>this</sup> diffusion, the odour of a scent spreads in a room.

d) We can walk through air

Ans- We can walk through air because gases have their molecules with large intermolecular spaces, i.e. they have large spaces between them.

e) Liquids have definite volume but no definite shape.

Ans- The molecules of a liquid are loosely packed but number of molecules in it remain the same. Hence, they have definite volume but no definite shape.

f) When a teaspoon of sugar is added to half a glass water, the water level remains unchanged because liquid molecules have spaces between them which are filled by sugar molecules.

- g) When an empty gas jar is inverted over a gas containing a coloured gas, the gas also spreads into the empty jar because gases fill up all the space available to them and because they can diffuse and flow in all directions.

h) A red ink drop added to small amount of water in a glass turns the water red in some time because the ink drop particles diffuse with water slowly but continuously turning it red.