

Hw  
19/7/24

### Exercise-2

1) Name the smallest particle from which matter is made up of.

ans) The smallest particle from which matter is made up is an atom.

2) Give reasons of liquids and gases flow but solids do not.

ans) Liquids and gases have more intermolecular spaces between the molecules while solids have ~~not~~ negligible or almost no intermolecular spaces. So, liquids and gases flow while solids do not.

b) A gas fills up the space available to it.

ans) The molecules of gas are wide apart from each other. There are very large intermolecular spaces between their molecules. Hence gases can fill up the space available to them.

c) The odour of scent spreads in a room.

ans) Scent fumes being gases fill the spaces between air molecules and the molecules due to diffusion spread into a room.

d) We can walk through air.

ans) The molecules of air are far apart i.e. large gaps and we can walk through air easily.

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

ans) The molecules of liquid are loosely packed and intermolecular force of attraction is small but no. of molecules in it remain the same. Hence liquids have definite volume but no definite shape.

f) When a teaspoon of sugar is added to half a glass of water and stirred, the water level in the glass remains 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 there are more intermolecular spaces in liquids and when the sugar molecules fill up these spaces.

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

ans) This is because gases can diffuse or flow in all directions.

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

shape and  
and  
at no.  
have  
ans) When we put a drop of red ink in a glass of water, its particles diffuse with particles of water slowly but continuously and the water turns red.

of  
remains  
q) Define:

a) Cohesive force: The force of attraction <sup>between</sup> particles of the same kind is called cohesive force.

s of  
arc  
b) Diffusion: The phenomenon of its intermixing of particles of one kind with another kind is called diffusion.

part  
c) Brownian movement: The zig-zag motion of particles suspended in a medium is called Brownian movement.