

Q.15 Write down five general properties of solids, liquids and gases.

Ans:-

Properties	Solid	Liquid	gas.
1. Mass	Definite	Definite	Definite
2. Shape	Definite	Takes shape of container.	Take shape of container.
3. Volume	Definite	Definite	Indefinite
4. fluidity	Not possible	can flow	Can flow
5. Rigidity	Highly rigid.	less rigid.	Not rigid.

Q.16. Give the molecular model for a solid and use it to explain why a solid has a definite volume and a definite shape.

Ans: The molecules of solid have large intermolecular force and ~~is~~ very small intermolecular space so they can not leave their positions. So solids have definite volume and a definite shape.

Q.17. Describe the molecular model for a liquid. How does it explain that a liquid has no definite shape but has a definite volume?

Ans:- The attractive force between the molecules of a liquid is not as strong as it is in solids so they are loosely packed and are not fixed. The molecules can move over one another within the boundary of the liquid. Thus liquids have definite volume but no definite shape.

Q.18 A gas has neither a definite volume nor a definite shape. Describe the molecular model to explain it.

Ans:- The molecules of a gas lie much farther apart than they lie in a liquid or a solid. Again there is negligible force of attraction between the molecules of a gas. So they are free to move in the entire space available. So gases have neither a definite volume, nor a definite shape.

Q.19 Distinguish between the three states of matter - solid, liquid and gas on the basis of their molecular models.

Ans:- In solids the molecules are very closely packed. In liquids they are not as close as in solids and in gases the molecules are far apart from each other.

Q.20 Distinguish between solids, liquids and gases on the basis of their following properties:

Ans:	Solid	Liquid	Gas
compressibility	Not compressible	Negligibly compressible	Highly compressible.
fluidity	Not possible	Can flow	Can flow.
rigidity	Highly rigid.	Less rigid	Not rigid.
expansion on heating	low	More than solids	More than liquids.

Worksheet -
Class - 6.

What do you mean by change of state of matter? Explain :

- (a) the change of a solid into a liquid at a constant temperature.
- (b) the change of a liquid into a gas at a constant temperature.