

Matter :- Anything that has mass and that occupies some space is called matter. Matter has mass and volume.

Physical Nature of matter :-

- ① Matters are made up of Particles.
- ② The Particles are very small.
- ③ The particles of matter have empty space between them.
- ④ The particles of matter are continuously moving.

Diffusion :- Intermixing of particles of more than one substances by their own is called diffusion.

States of matter :-

- ① Solid state
- ② Liquid state
- ③ Gaseous state
- ④ Plasma state
- ⑤ Bose-Einstein Condensate

Solid state :-

1. Solids have a definite shape, size and volume.
- ② The atoms in a solid are very closely packed.

③ The solids are rigid and cannot be compressed.

④ They do not diffuse easily.

⑤ They possess less kinetic energy.

Kinetic Energy :-

The energy possessed by an object due to its motion is called kinetic energy.

The Liquid state :-

① Liquids have a definite volume but no definite shape.

② The constituent atoms are loosely packed.

③ The intermolecular attraction is very weak.

④ They can diffuse easily.

⑤ They are highly compressible.

⑥ They have kinetic energy more than that of solids.