

Matter

Matter around us exists in three different states– solid, liquid and gas. These states of matter arise due to the variation in the characteristics of the particles of matter

THE SOLID STATE

Solids have negligible compressibility. Solids have a tendency to maintain their shape when subjected to outside force. Solids may break under force but it is difficult to change their shape, so they are rigid.

THE LIQUID STATE

liquids have no fixed shape but have a fixed volume. They take up the shape of the container in which they are kept. Liquids flow and change shape, so they are not rigid but can be called fluid.

The gases from the atmosphere diffuse and dissolve in water.

THE GASEOUS STATE

Gases are highly compressible as compared to solids and liquids. The liquefied petroleum gas (LPG) cylinder that we get in our home for cooking or the oxygen supplied to hospitals in cylinders is compressed gas. The particles of the aroma of food mix with the particles of air spread from the kitchen, reach us and even farther away.

Questions:

1. Compare the properties of three states of matter.
2. Convert the following temperature to celsius scale:
a. 300 K b. 573 K.
3. Explain the terms- rigidity, compressibility, diffusion, fluidity, Inter molecular force of attraction.
4. A sponge is called a solid, yet it is compressible. Why?
5. How do the aquatic plants and animals breathe ?
6. Out of the three states of matter, which is more compressible and why?