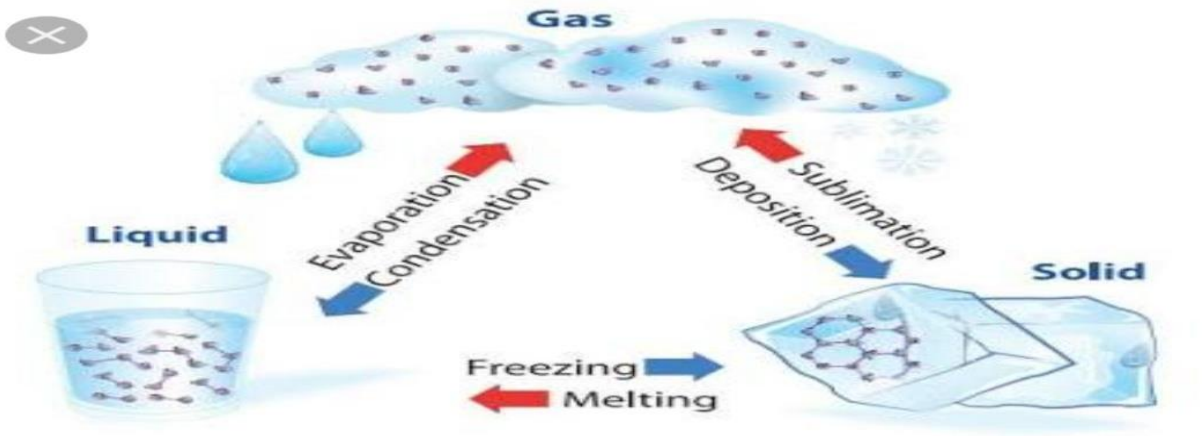
Class 8

Subject Physics

Chapter Matter

Topic The change of State



- **Boiling** it is a process in which a substance changes its state from the liquid state to the gaseous state.When a liquid is heated the molecules receive heat energy , The molecules start moving faster Inter molecule is space starts increasing. at a certain temperature the molecules of the surface overcome the the force of attraction add escape the volume of the liquid. this takes place throughout the volume of the liquid, and it's called boiling. the certain temperatur at which boiling starts is called the boiling point of a substance which is a physical property of the substance.
- **Evaporation** is the process in which a substance changes its state from the liquid to the gaseous state without a source of energy.The molecules are always in motion inside the liquid with different velocities, And the molecule which is most energetic is able to overcome the force of attraction to escape the volume of the liquid, This leads to evaporation of a liquid.
- **Melting /fusion** is the process in which a substance changes from a solid to a liquid when it adsorbs energy.The molecules start vibrating fosters and hence the start moving

out upstairs fixed positions in a solid, Hence the solid starts flowing like a liquid.the temperature at which this changed from solid to liquid happens it's called the melting point of the substance and is a property of a substance.

- **Condensation** is the process in which a substance changes from a gas to a liquid when it cools down. the substance loses energy Hence the molecules move it lesser kinetic energy and the intermolecular space decreases, the gas changes to liquid.
- **Sublimation** the process in which a substance changes directly from a solid to a gas without going through the liquid state.
- **Deposition** in this process i said since changes directly from a gas do a solid without going through the liquid state. change of states of matter

Note

Vapour pressure When evaporation is taking place the molecules with enough kinetic energy to overcome the attractive forces leave the surface of the liquid and at the same time some of the molecules above the surface are attracted back into the liquid. So the rate of evaporation and the rate of condensation slowly becomes equal which results in a constant vapour pressure above a liquid.

Worksheet

Short answer type question

1. Name the physical state when air is in contact with a very cold windowpane the water vapour changes into tiny ice crystals.
2. Name the process in which a box of dry ice when opened turns into gas.
3. Give examples of two substances that undergo sublimation.
4. Do you think the interconversion of states of matter, Causes a change in the mass ?

Long answer type questions

1. Explain according to kinetic theory of matter the process of evaporation.
2. Differentiate between boiling and evaporation.
3. What is vapour pressure?
4. Complete the exercise at end of the chapter.