

CLASS-10
PHYSICAL SCIENCE
PERIOD PLANS
CHAPTER: 01 – HEAT

PERIOD PLAN-10 :

Melting and freezing
Other information

Content Analysis	Class Room Environment	Teaching Learning Material
<p>Melting : The process in which the solid phase changes to liquid phase at a constant temperature and pressure is called melting. The temperature is called melting point of ice. The melting point of ice is 0°C or 273K. The total heat energy utilizes to break the bonds between molecules in ice.</p>	<p>Activity-25 : Take a beaker of ice. Keep it on the stove. Place a laboratory thermometer in the water with the help of retort stand. Note the readings in thermometer for every 1 minutes. Observation : The temperature still does not changes until the ice melts into water.</p>	Beaker, ice, stove, lab thermometer
<p>Latent heat of fusion : The heat energy required to change one gram of solid to liquid at constant temperature is called latent heat of fusion. Formula : $L_f = \frac{Q}{m}$ The S.I. Unit is J/Kg . The C.G.S. Unit is cal/gm. The latent heat of fusion of ice is 80 cal/gm.</p>	<p>Conversation : About latent heat of fusion and formula and units.</p>	AV-Clip for showing latent heat
<p>Freezing : The process in which a substance in a liquid phase changes to solid phase at constant temperature by loosing some of its energy is called freezing. Freezing of water takes place at 0°C and at 1 atm.</p>	<p>Activity-26 : Take a plastic bottle. Fill it with water. Keep it in the fridge or in the ice box for one hour. Observe what happens? Observation : The water gets cooled and it converts into ice(solid).</p>	Plastic bottle, water, ice box
<p>Sublimation : The process in which a solid phase changes to gaseous phase directly at constant temperature with out passing through an intermediate liquid phase is called sublimation. Note : Condensation X evaporation Melting X freezing Sublimation X deposition</p>	<p>Activity-27 : Take a piece of camphor. Lit it with match stick. Observe what happens? Observation : The solid camphor changes into vapour without passing through the liquid state.</p>	Camphor, match box

