## 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
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.		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.		Beaker, ice, stove, lab thermometer
Latent heat of fusion: The heat energy to change one gram of solid to liquid at c temperature is called latent heat of fusion Formula: $L_f = \frac{\varrho}{m}$ The S.I. Unit is J/Kg. The C.G.S. Unit is cal/gm. The latent heat of fusion of ice is 80 called latent heat of fusion heat o	constant a.	Conversation : About later and units.	t heat of fusion and formula	AV-Clip for showing latent heat
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.		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).		Plastic bottle, water, ice box
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		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.		Camphor, match box
Solid  Condensation  Evaporation  Gas	Gas  Ionization Deloniz  Gas  Solid	Plasma Vaporization Condensation Liquid Melting Freezing	RED BALLOONS REPRESE BLUE BALLOONS REPRESE  Warmer air can hold more water vapour Therefore HUMIDITY becomes RELATIVE to Temperature  -5° Celsius 15° Celsius 98% RH 44% RH Absolute Humidity is 2.5 grams/K same amount of water vapour in INCREASE the Temperature to DECRE	NT VAPOUR  7.  30° Celsius 10% RH (Ilogram all 31

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