

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

**PERIOD PLAN-02 :**    Temperature –Kinetic Energy  
Transfer of heat - Activity

Content Analysis	Class Room Environment	Teaching Learning Material
<p><b><u>Heat - Kinetic Energy :</u></b> The form of energy that flows from a body at higher temperature to a body at lower temperature is called heat.</p> <p>The average kinetic energy of molecules of a hotter body is greater than that of a cooler body.</p> <p>The average kinetic energy of the molecules is directly proportional to the absolute temperature.</p>	<p><b>Activity-5:</b> Take two bowls one with hot water and second with cold water. Gently sprinkle food colour on the surface of the water in both bowls. Observe the motion of the small grain of food colour.</p> <p>How do they move?</p> <p><b>Observation :</b> The grain of food colour move randomly. The jiggling of grain of food colour is in hot water is more when compared the jiggling of of grain in cold water.</p>	<p>One bowl of hot water, One bowl of cold water, food colour</p> <p>AV-clip for K.E. of molecules</p>
<p><b><u>Transfer of heat :</u></b> When two bodies are placed in the thermal contact, heat energy will be transferred from the hotter body to a cooler body. The transfer of heat continues till both bodies attain the same temperature. Then we says that the bodies achieved thermal equilibrium.</p> <p>If two different systems A and B are in thermal contact and they are in thermal equilibrium individually with another system C, then the systems A and B are in thermal equilibrium with each other.</p>	<p><b>Activity-6 :</b> Take a glass beaker/jar. Fill half of it with hot water. Very gently pour coconut oil over the surface of the water. Put a lid with two holes on the top of the jar. Insert two thermometers through the holes that the bulb of one thermometer lies in the coconut oil and the other thermometer's bulb lies in hot water. Note down the initial readings. Observe the readings in the thermometers. Note down the final readings (temperatures) in the thermometers.</p> <p><b>Observation :</b> The temperature decreased gradually in the water. The temperature increased gradually in the coconut oil.</p>	<p>Glass jar, Hot water, coconut oil, lid, two lab thermometers</p>