

Chapter 02

RADIATION

When we come out in the sun, we feel warm. When we stand in front of fire, we feel warm; we can feel the heat around us. It cannot reach us by conduction or convection but by another process called Radiation.

In conduction and convection, the heat was transferred through medium such as solids, liquids or gases. But how does heat from sun reach us while there is no medium in most part of the space between the earth and the sun? It is again through radiation. In radiation heat is transferred with or without medium.

In radiation, heat is transferred in straight line in all directions at a great speed without heating the medium it passes through.

When we sit near a closed glass window, we can feel heat from the sun's rays even though the glass of the window is closed. This happens due to radiation. The glass does not get heated although we are able to feel the heat.

A hot utensil kept away from the flame cools down as it transfers heat to the surroundings by radiation. Our body too gives heat to the surroundings and receives heat from it by radiation.

In today's lesson we learnt about the third mode of transfer of heat i.e. radiation. Radiation does not require the medium for the heat to be transferred.