

Home Assignment

1. Explain briefly the process of heat transfer by radiation.

Ans → Radiation refers to the transfer of heat from a hot body to cold body directly, without heating the medium between two bodies. The radiant heat is of the form of electromagnetic waves. These waves can travel in vacuum in all directions in a straight line with the speed of light. Heat radiations are also called infra-red radiations because the wavelength of heat radiations is longer than that of visible light.

2. Give one example of heat transfer by radiation.

Ans → When we sit in the sun, we feel warm. We cannot get heat from the sun by the process of conduction or convection because most of the space between the sun and the earth is a vacuum and both of these modes of heat transfer require medium. Hence, one must be getting heat from the sun by the mode of radiation.

3. The bottom of cooking utensils is painted black. Why?

Ans → The bottom of the cooking utensils are painted black because black surface absorbs more heat and so the contents of utensil gets cooked rapidly.