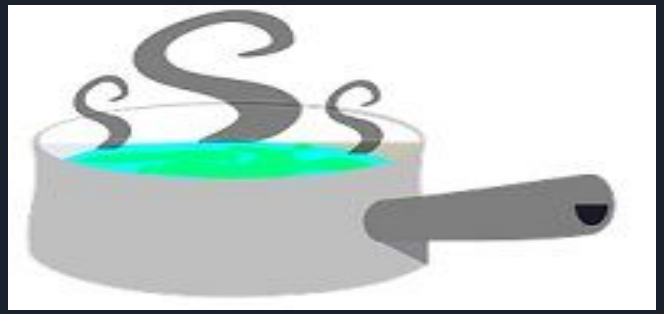
HEAT-

Chapter-4

Introduction-

It is from our day to day observation that in winter we feel cold whereas in summer we feel hot. People avoid getting out of their houses during the scorching summer due to excessive heat outside.

When you boil water it becomes hot and is hard to dip finger in it but as soon as you blow off the flame and keep it aside for some time it gets easy to dip your finger.



During fever our body gets hot but as soon as we take medicine the body becomes cool.

Ice melts when kept outside but remains in cold solid form as long as kept inside the deep freezer. Have you ever wondered what changes or phenomenon makes this happen.

It is all due to temperature.

Temperature-

A measure of hotness or coldness of an object that can be relied upon is known as temperature.

Fig. Measure of temperature during fever using thermometer.

Fig. High temperature due to burning of wood.

It can be measured using three different units namely-

1. **Degree Celsius: It is denoted as °C and read as degree Celsius or Celsius. For instance, 20°C will be read as twenty degree Celsius.**
2. **Fahrenheit: It is denoted as °F and read as degree Fahrenheit. For instance, 25°F will be read as twenty five degree Fahrenheit.**

3. Kelvin: It is denoted as K. For instance, 100K will be read as hundred Kelvin.

Temperature can be sensed by touching but we cannot rely upon it. Therefore a device called thermometer is used to get the exact value of temperature.

Thermometer-

Thermometer is a device used to measure temperature of a body. It can be used to measure the temperature of the body during fever. It can also be used to measure the atmospheric temperature and temperature during chemical reactions.

It consists of a long narrow glass tube appearing as a continuous silver line because it is filled with mercury readily expands or contracts at the slightest change in temperature and a bulb at one end.

PLENARY

Q. Which one of the following is a reliable measure?

(a) Hotness

(b) Coldness

(c) Temperature

(d) None of these

ASSESSMENT

Q.Name the device which is used to measure the hotness or coldness of an object.

(a) Picometer

(b) Barometer

(c) Manometer

(d) Thermometer

Q. Shopkeepers selling ice blocks usually cover them with jute sacks. Explain why.

A. As we know that jute sacks is thermal insulators, it helps ice not to be melt immediately. So, shopkeepers used to cover ice blocks with jute sacks.