

WEATHER AND CLIMATE

Weather and climate are the two most often used terms in our life. Weather is the atmospheric condition in a small area over a short period of time, while the term 'climate' refers to the average weather conditions of a large area over a long period of time spanning about 30 years. The weather of any area may change at short intervals. It might be windy at one-time of the day or sunny and humid at another point of time. But, climate of any place is of a permanent nature, *e.g.*, India experiences Tropical type of climate or Sri Lanka enjoys Equatorial type of climate. The elements that influence the weather and climate are temperature, pressure, winds, humidity, precipitation, sunshine and cloudiness.

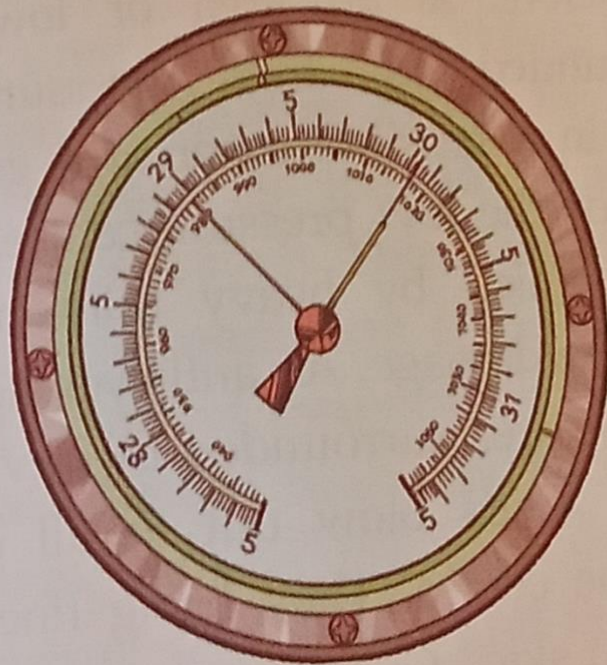
Temperature

Temperature refers to the degree of hotness or coldness of the air. The main source of this heat is the **insolation** or the amount of solar energy received by the earth. The amount of heat depends upon the latitudinal location of any place. It is higher in places near the equator and decreases pole-wards. The amount of insolation received differs from season to season and also between day and night. The temperature of any place also depends upon its height above sea level and its distance from the sea. Places located near the sea will experience moderate temperature but those away from the sea will generally experience extremes of temperature.

Of course, the temperature recordings are never solely dependent on any one factor. Various factors affect the climate of a place. Winds, ocean current, slope of land, vegetation cover are the other factors that influence the

Air Pressure

Atmospheric pressure can be defined as the pressure exerted by the weight of air on the earth's surface. Air exerts pressure on all objects on the earth. This is because air above us exerts pressure on the lower layers. However, we don't feel this pressure because air presses from all directions and our bodies too counter this pressure. Atmospheric pressure is measured by the instrument called **barometer** and the unit by which it is measured is **millibar**.



Barometer