

Chapter – 4 (Geography)

Class-- 7

AIR

Temperature

It is the degree of hotness or coldness of the air. It changes between day and night and from season to season. Thermometer is a device for measuring temperature.

Insolation: It is an important factor that influences the distribution of temperature. The incoming solar energy intercepted by the earth is called insolation. The amount of insolation decreases from the equator to the poles. This is the reason why the poles are much colder than the equator. If the temperature of the earth becomes too high, it will be too warm for some crops to grow. The temperature in the cities is much higher than that in villages. This is because the concrete and metals in buildings and the asphalt of roads get heated up during the

day and this trapped heat is released during the night. Some of our big and highly populated cities like Mumbai are slowly turning into 'concrete jungle'. The lack of greenery is responsible for warmer climate in cities.

Air Pressure

The air above us presses us with great force. But we do not feel it at all. This is because it presses us from all directions and our body exerts a counter pressure. Air pressure is defined as the pressure exerted by the weight of air on the earth's surface.

Nature of vertical air pressure: The pressure falls rapidly as we go up the layers of the atmosphere. Therefore, the pressure is the highest at sea level and decreases with altitude.

Nature of horizontal air pressure:

Horizontally, the distribution of air pressure is influenced by the temperature of the air at a given place. Where the temperature is high,

the air gets heated up and rises, thus creating a low pressure area. This is associated with cloudy skies and wet weather. Where the temperature is low, the air is cold and therefore heavy. This heavy air sinks and creates a high pressure area. High pressure is associated with clear and sunny skies. The movement of air is always from areas of high pressure to areas of low pressure. Barometer is used to measure atmospheric pressure.

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