

TENDER HEART HIGH SCHOOL

SECTOR 33B CHANDIGARH

CLASS: VII

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DATE: 06/05/24

SUBJECT: Geography

Chapter 3:

Weather and Climate

Good Morning Students

This is the lesson of Class VII Geography. Today we will learn about further topics like Elements of Weather and Climate such as Temperature, Atmospheric Pressure, Prevailing Winds, humidity, rainfall, sunshine and clouds.

Element of Weather and Climate

(1) Temperature:

- It is the measure of how hot or cold a place is.
- It varies throughout the world due to various reasons.
- The factors that affect temperature are latitude, altitude, distance to sea, terrain, ocean currents, soil, winds, season etc.
- It is measured with the help of Thermometer.

(2) Atmospheric Pressure:

- It is the pressure exerted by the weight of Atmosphere on the surface of Earth.
- This pressure varies from place to place and time to time.
- The variation in Air Pressure occurs due to difference in rate of heating of the Atmosphere.
- The amount of pressure exerted by air at a particular point is determined by two factors, namely Temperature and Density.

- Atmospheric Pressure decreases with increase in altitude.
- It decreases when Temperature increases and it increases when Temperature decreases.
- It is measured with the help of Mercury Barometer.

(3) Prevailing Winds:

- Winds coming from warmer regions increases the temperature of the area. On the other hand, winds coming from cooler regions decreases the temperature of the area.

(4) Humidity:

- It is the amount of Water Vapour in the air.
- It varies from place to place and time to time.
- Absolute Humidity is the actual amount of water vapour present in Atmosphere. It is measured in grams per cubic metre.
- Relative Humidity is the ratio between actual amount of water vapour present in Air and the total amount the air can hold at a given temperature. It is expressed in percentage.

(5) Precipitation:

- It is defined as water falling on earth in liquid or solid form.
- It is the most important phase of hydrological cycle.
- examples are: Rain, Hail, Snow, Sleet, drizzle etc.

(6) Sunshine:

- It is determined by season, latitude, cloud cover, cloud cover etc.
- Equatorial Regions and Tropical Regions receive more shine as compared to temperate regions.
- Cloudy Skies also decreases the amount of sunshine.

(1) Clouds

- It is a mass of small water droplets that floats in Air.
- Clouds are formed when condensation nuclei are formed.
- The clouds look white because the droplets scatter light and when they block sun rays, they look grey in colour.

Types of Clouds

Cirrus Clouds	Cumulus Clouds	Stratus Clouds	Nimbus Clouds
→ These are fibrous clouds	→ These are cauliflower shaped clouds with vertical height and a flat base.	→ These are sheet like clouds.	→ These are real rain clouds
→ They form between 5 to 10 kms.	→ They are white or grey in colour.	→ They form below 2 kms of height.	→ They cause regular rain or snow.
→ They consist of tiny crystals of ice.	→ They cause rainfall and lightning.	→ They are grey and dull	