

Chapter- 1

CHAPTER-4 - CLIMATE

STUDY NOTES

Climate is the sum of the weather conditions and variations over a large area for a long period of time, generally more than 30 years.

Weather is the state of the atmosphere over an area at any point of time.

Various elements of weather and climate are temperature, atmospheric pressure, wind, humidity and precipitation.

India along with South and South-East Asia has monsoon type of climate.

The climate of any place is controlled by latitude, altitude, pressure and wind system, distance from the sea, ocean currents and relief features.

High mountain by blocking the rain-bearing winds helps in causing rainfall in windward side of mountain.

The atmospheric conditions which govern the climate and weather condition of India are-pressure and surface winds, upper air circulation, western cyclonic disturbances and tropical cyclone.

Coriolis force which is generated by the rotation of the earth is responsible for deflecting winds towards the right in Northern hemisphere and towards the left in Southern hemisphere.

South-West monsoon winds are South-East trade winds of Southern hemisphere which after crossing equator, become South-Western trade winds (due to rightward deflection by Coriolis force). As they blow over warm ocean, they cause rainfall in Indian sub-continent.

Jet streams are fast blowing winds moving in the upper atmosphere. They are located at about 27°-30° North latitude.

Shallow cyclonic depressions originating over the Mediterranean Sea are known as Western disturbances. They cause winter rainfall in-North Western parts of India.

Monsoon is derived from Arabic word 'Mausim'. It refers to the seasonal reversal in wind direction throughout the year.

The Inter Tropical Convergence Zone (ITCZ) is a broad trough of low pressure in equatorial latitude. In ITCZ, there is convergence of North-east and South-East trade wind.

Southern Oscillation (SO) is the reversal of pressure conditions and vice-versa in Southern Pacific ocean and Eastern Indian ocean.

ENSO is the combination of EL Nino and Southern Oscillation. The changes in pressure conditions are connected to EL Nino, hence, the phenomenon is referred to as ENSO.

Monsoons are pulsating in nature and are affected by different atmospheric conditions.

The Arabian sea branch of monsoon causes rainfall in Western Ghat, Mumbai, Gujarat and central India.

The Bay of Bengal branch of monsoon causes rainfall in North-East India and Ganga plain.

The sudden and continuous rain associated with violent thunder and lightning is called Burst of monsoon. It occurs around the time of arrival of monsoon.

Arabian sea branch and Bay of Bengal branch are the two branches of South-West monsoon in India.

EL Nino is a warm ocean current that flows past the Peruvian coast in place of cold Peruvian current every 2 to 5 years. '

Cold weather, hot weather, advancing monsoon and retreating monsoon are four-main seasons in India.

The cold weather season is associated with clear sky, low temperature, low humidity and feeble, variable wind.

Due to the moderating influence of sea, the peninsular region does not have a well defined cold season.

Loo is hot and dry winds blowing during the day over the North and North-Western India in the summer season.

Kaal Baisakhi is a pre-monsoon shower in West Bengal. This localised thunderstorm of the summer season is associated with violent winds, torrential downpours and is often accompanied by hail.

World's highest rainfall occurs in Mawsynram. It is located in Southern range of Khasi hills in Meghalaya.

Monsoon occurs in dry and wet spells. The rainless intervals interspersing the monsoon rain is called 'Breaks in monsoon.'

The monsoon trough is the intense and elongated low-pressure area, which develops over North-Western India. It extends from the Thar Desert in West to Chota Nagpur plateau in East.

The pre-monsoon shower in coastal Karnataka and Kerala is called Mango shower. It helps in early ripening of Mangoes.

The hot and humid condition which makes the weather oppressive is called October heat. It occurs towards the end of retreating monsoon in the month of October.

With a rhythmic cycle of seasons, in which people celebrate many festivals and do other activities, the monsoon unites the Indian sub-continent and acts as a unifying bond.

We hope the given Climate Class 9 Notes Social Science Geography Chapter 4 SST Pdf free download will help you. If you have any query regarding Climate Class 9 Geography Chapter 4 Notes, drop a comment below and we will get back to you at the earliest.