



**BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI – 110034**

**CLASS: IX**

**SUBJECT: GEOGRAPHY**

**CHAPTER 3: CLIMATE**

**SUB-TOPIC – ELEMENTS OF CLIMATE AND WEATHER**

**CLIMATE OF INDIA**

**VARIATION IN THE CLIMATE OF INDIA**

**WEEK – 05 OCTOBER TO 09 OCTOBER, 2020**

**NUMBER OF BLOCKS PER WEEK – 1**

**LEARNING OBJECTIVES:** Each student will be able to:

- a. Compare and contrast the elements of climate and weather.
- b. Comprehend the climate of India.
- c. Realise the regional variation in the climate of India.

**INSTRUCTIONAL AIDS:** Maps, Diagrams

**ACTIVITY – DISCUSSION BASED UPON REAL LIFE EXAMPLES AND MAP INTERPRETATION,**

Read the E lesson and the unit: CLIMATE from the textbook (Students may refer to the link given below). Thereafter, follow the instructions and do the given assignment in the notebook. Please mention date, index and topic.



Text book link: <http://ncert.nic.in/textbook/textbook.htm>

**LESSON DEVELOPMENT**

**INTRODUCTION**

We have read about landforms and the drainage of our country. These are two of the three basic elements that we have learned. In this chapter, they will learn about the third element, that is, the atmospheric conditions - climate. The chapter deals with India's climate condition, factors affecting India's climate, Indian monsoon, onset of the monsoon and withdrawal, different seasons in India and distribution of rainfall.

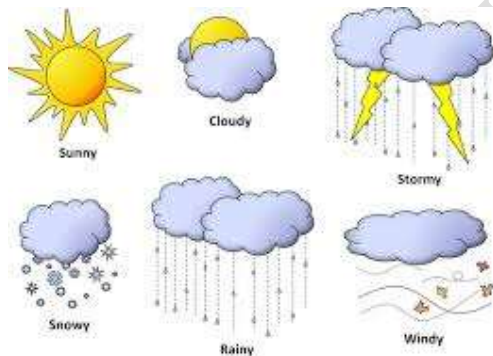
Weather affects us in a number of ways. Climate influences the **growth of crops**, thus affecting the availability and kind of food we eat. Fluctuations in weather (e.g. dry spells, wet spells) also affects crops. **Weather affects what clothes we wear**, types of houses and so on.

WEATHER	CLIMATE
<p>Tells you what to wear each day</p> 	<p>Tells you what types of clothes to have in your closet</p> 
<p>NOAA National Centers for Environmental Information <a href="http://www.ncei.noaa.gov">www.ncei.noaa.gov</a></p>	

## ELEMENTS OF CLIMATE AND WEATHER

The elements of weather and climate are the same—temperature, atmospheric pressure, wind, humidity, and precipitation.

Weather and Climate, both tell the condition of atmosphere. But yes, there is a difference between the two.



Weather refers to the short-term changes in the atmosphere and climate describes what the weather is like over a long period of time in a specific area. Different regions can have different climates.



To know about the climate/weather of a particular region, the above-mentioned elements are studied by the metrological department.

### LET US KNOW SOMETHING MORE

**TEMPERATURE** – It is the degree of hotness and coldness of a region. It is usually measured in degree Celsius or Fahrenheit or Kelvin. It is a very important determinant to know about the atmospheric condition of a region.

**ATMOSPHERIC PRESSURE** - The air around you has weight, and it presses against everything it touches. This pressure is called atmospheric pressure, or air pressure. It is the force exerted on a surface by the air above it as gravity pulls it to the Earth. Atmospheric pressure is commonly measured with a barometer. As the pressure decreases, the amount of oxygen available for breathing also decreases. At very high altitudes, atmospheric pressure and available oxygen get so low that people can become sick.

Variation in the atmospheric pressure actually allows the wind to move from one place to another.

**WIND** - Wind is the flow of air on a large scale. Depending upon the season/region – winds can be classified into Permanent, Seasonal and Local winds. Winds are generally named on the basis of direction from where they flow.

**HUMIDITY** - Humidity is the concentration of water vapor present in the air. It indicates the likelihood for precipitation, dew, or fog to be present.

**PRECIPITATION** - Precipitation occurs when a portion of the atmosphere becomes saturated with water vapor (reaching 100% relative humidity), so that the water condenses and "precipitates" or falls.

### CLIMATE OF INDIA

India's climate is **dominated** by the monsoon winds. They blow **constantly** from June to September. Winds coming from the Indian Ocean **absorb** wet air on their way to the Indian subcontinent. During this period much of India **receives** heavy rainfall.

The monsoon is very important for India's **agriculture**. It brings rain to normally dry areas so that **crops** like **rice** and corn can grow there. When the monsoon does not come or comes too late, much of India **experiences** a **shortage** of crops and food.

Many peninsular rivers of India are also dependent upon the arrival of monsoons for the increased volume of water in them.

Largely, these winds cover the entire nation and bring the huge impact upon the lives of the people.

## VARIATION IN THE CLIMATE OF INDIA

**India** is home to an extraordinary variety of **climatic** regions, ranging from tropical in the south to temperate and alpine in the Himalayan north, where elevated regions receive sustained winter snowfall.

In **India**, many **regional variations** in **climatic** conditions are found due to its vast size. But due to the influence of monsoons **India** has a broad unity.

The two important elements that cause these variations are temperature and rainfall.

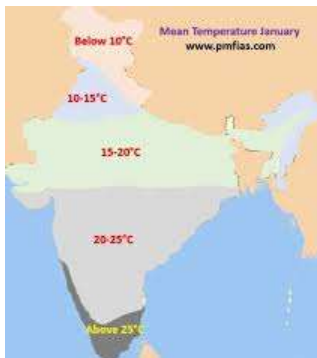
The example given below illustrates the climatic differences:

### **i) Temperature:**

Barmer ( Rajasthan) has recorded the highest temperature 50° C in summer and 15° C at night while hilly region like Gulmarg( Kashmir) have a day temperature of 20°C in June.

The winter temperature at Dras & Kargil (Leh) drops as low as - 45°C on the other hand Chennai may record only 20°C in December.

The annual range of temperature is about 12°C in Cochin while it is about 40°C in Punjab. Coastal regions have almost uniform temperature throughout the year.



*VARIATION IN TEMPERATURE FROM SOUTH TO NORTH INDIA*

### **ii) Rainfall:**

The striking differences are found in rainfall pattern. Mawsynram (Meghalaya) annual rainfall of 1140 CM is the rainiest place in the world while Jaisalmer (Rajasthan) rarely gets more than 12 centimetre of annual rainfall and Leh gets only 10 cm rainfall.

The Western Coastal plain gets rain storms while the Coromandel coast remains dry. When the Brahmaputra valley is submerged in floods it brings drought in Bihar.

### **iii) Monsoons:**

The dates of the onset and withdrawal of monsoon differ in various parts. The West Coast

gest monsoon in the first week of June while interior parts like Punjab the monsoon by the first week of July.

**iv) Seasons:**

The southern part of the country has uniformly high temperature throughout the year. There is no winter season in the south. On the other hand seasonal extremes are found in the north. In summer heat wave is produced called Loo whereas a cold wave is felt in winter.

**ASSIGNMENT**

Q.1. 'The climate of India is said to be the Monsoon Type of Climate.' Justify the statement.

Q.2. The types of houses vary from mud houses in Rajasthan to stilt house in Meghalaya. Analyse the reason behind the same.

Q.3. Explain the variation in temperature that is experienced in India.

BAL BHARATI PUBLIC SCHOOL, PITAMPURA