ODM EDUCATIONAL GROUP
Changing your Tomorrow

WELCOME TO VIRTUAL CLASS-IX

SUBJECT : (GEOGRAPHY)
CHAPTER NUMBER: 4
CHAPTER NAME : CLIMATE

Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

CHAPTER AT A GLANCE

- CLIMATE AND WEATHER
- ELEMENTS OF CLIMATE AND WEATHER
- CLIMATIC CONDITIONS
- FACTORS AFFECTING INDIA’S CLIMATE
- MONSOON
- IMPORTANT FACTS TO UNDERSTAND MONSOON MECHANISM
- FOUR SEASON IN INDIA
- DISTRIBUTION OF RAINFALL IN INDIA IS UN EVEN

ODM EDUCATIONAL GROUP
Changing your Tomorrow

DEFINATION OF WEATHER AND CLIMATE

Weather is what you see outside on any particular day. So, for example, it may be 75° degrees and sunny or it could be 20° degrees with heavy snow.
That's the weather.
Climate is the average of that weather. For example, you can expect snow in the Northeast in January or for it to be hot and humid in the Southeast in July. This is climate. The climate record also includes extreme values such as record high temperatures or record amounts of rainfall. If you've ever heard your local weather person say "today we hit a record high for this day," she is talking about climate records.
So when we are talking about climate change, we are talking about changes in *long-term* averages of daily weather. In most places, weather can change from minute-to-minute, hour-to-hour, day-to-day, and season-to-season. Climate, however, is the average of weather over time and space.

ODM EDUCATIONAL GROUP
Changing your Tomorrow

ELEMENTS OF WEATHER AND CLIMATE

Various elements make up the climate of a region, but the following are the most common:

Temperature .

Temperature is the amount of heat energy that is in the air. Its measure unit is Celsius degrees or Fahrenheit degrees in some countries. Heat is the energy radiated from the Sun to the Earth in the form of light. Clouds, water vapour, and atmospheric dust deflect about half of the solar energy back into space, while the rest is absorbed by the soil and water and becomes heat. The temperature is characterized by its variation during a day due to Earth's rotation and during the annual seasons due to the translational motion of the Earth around the sun.

Precipitation.

It is a process that ends with the fall of water, in liquid or solid form, to the earth's surface. A large percentage of rainfall drains into lakes and rivers while the rest evaporates from the earth's surface or passes through plants. The latter process is known as evapo transpiration and is part of the water cycle.

ODM EDUCATIONAL GROUP
Changing your Tomorrow

ELEMENTS OF WEATHER AND CLIMATE

Various elements make up the climate of a region, but the following are the most common:

Humidity .

It is the water vapour contained in the air. Its amount varies according to the amount of rainfall and solar radiation in a zone. Water vapour is present in any region of the world, even the hottest ones. As the temperature increases, so does the possibility of having water vapour.

Atmospheric pressure.

It is the force exerted on a given surface due to the weight of the atmosphere. It varies vertically; the values decrease as you ascend in altitude.

Cloudiness.

The number of clouds in the atmosphere is also an element of climate. Clouds form when humid air cools down to its dew point, and water droplets or ice attach to small particles of dust, ash, or other contaminants.

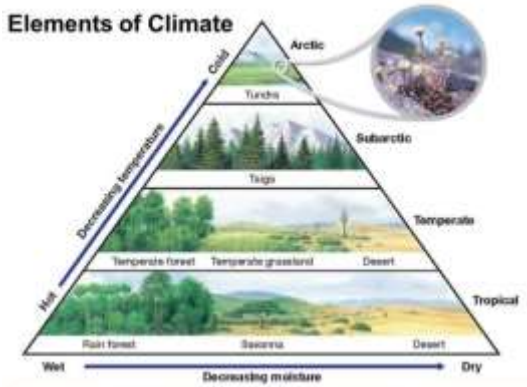
ODM EDUCATIONAL GROUP
Changing your Tomorrow

ELEMENTS OF WEATHER AND CLIMATE

Various elements make up the climate of a region, but the following are the most common:

Wind.
The Wind is the moving air. It causes variations in climate by drying humidity, causing storms, and contributing to water evaporation.

Solar radiation.
Although it is an unseen element, it significantly impacts climate by providing heat. The amount of sunlight the ground receives is called isolation.



ODM EDUCATIONAL GROUP
Changing your Tomorrow

THANKING YOU

ODM EDUCATIONAL GROUP

ODM EDUCATIONAL GROUP
Changing your Tomorrow