

**SESSION : 1**

**CLASS : 5**

**SUBJECT : SOCIAL SCIENCE**

**CHAPTER NUMBER: 4**

**CHAPTER NAME : CLIMATE**

**SUBTOPIC : INTRODUCTION, WEATHER AND CLIMATE, FACTORS**

**AFFECTING CLIMATE**

---

**CHANGING YOUR TOMORROW**

---

## **LEARNING OBJECTIVES:**

**To enable the learner to know about:**

- **The difference between weather and climate**
- **The factors that affect the climate of a place**

**DID YOU KNOW**

The scientists who study and predict the weather are called meteorologists

**How was the weather in Bhubaneswar? Usually the climate is hot there but today it rained and the weather is pleasant.**

**Is there any difference between weather and climate? Let us find out.**

**WEATHER**

**Weather is the condition of the atmosphere at a particular place and time.**

**CLIMATE**

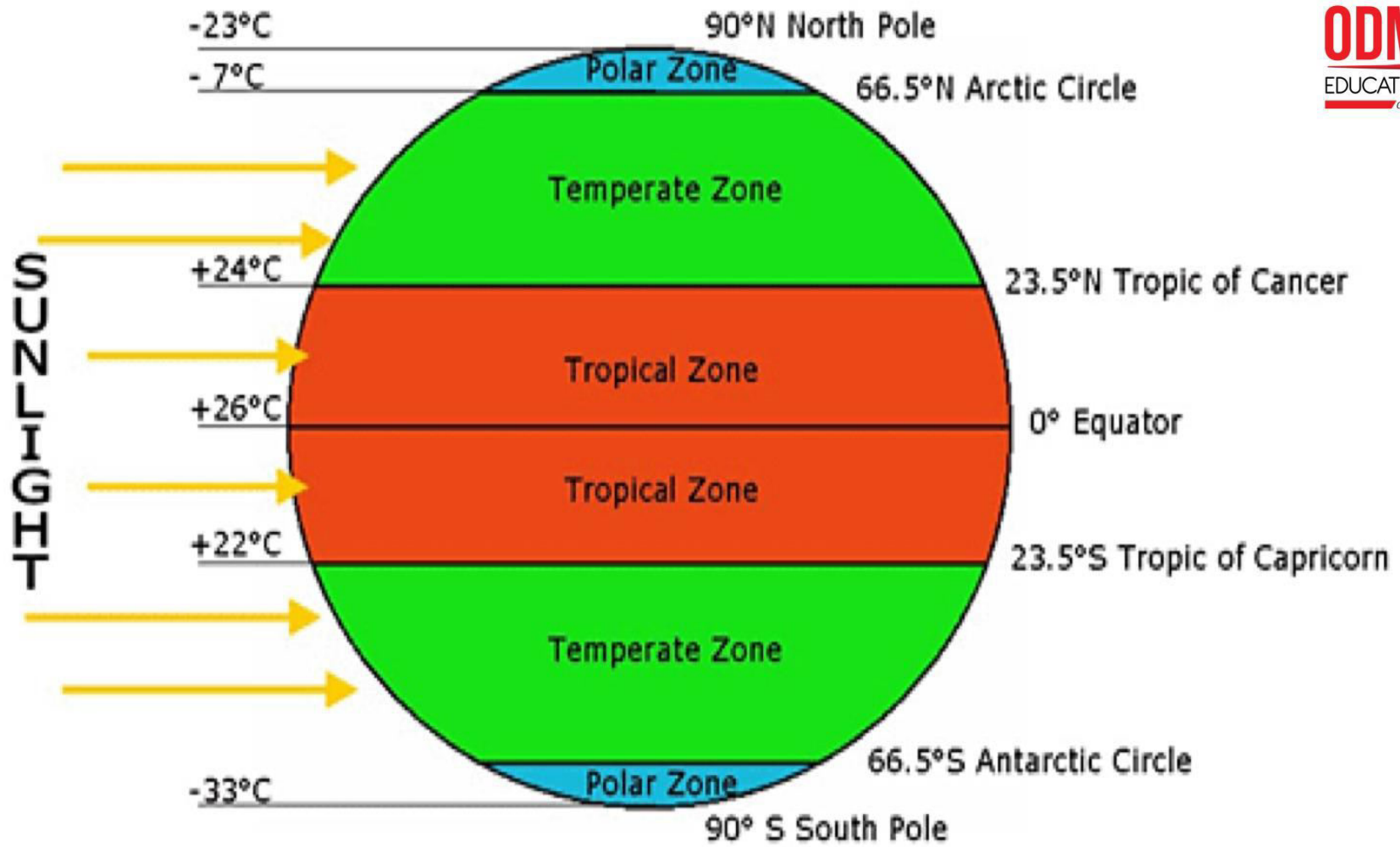
**Climate, on the other hand, is the average weather condition of a place over a long period of time.**

## **FACTORS AFFECTING CLIMATE:**

- **Latitude (Distance from the Equator)**

As we know that all parts of the Earth donot receive the same amount of sunlight from the Sun, therefore based on the amount of heat received, the Earth is divided into three heat zones -

- **the torrid zone**
- **the temperate zone**
- **the frigid zone**
- **Height above sea level**
- **Distance from the sea**
- **Winds**
- **Humidity**



## TORRID OR TROPICAL ZONE

- The region between Tropic of Cancer in North and Tropic of Capricorn in South is called torrid or tropical zone.
- Climate - hot and humid throughout the year
- Hottest zone as it receives direct rays of the Sun.
- Receives heavy rainfall.

The World densest forest, the South American Amazon lies in Torrid or Tropical zone. (Tropical Rainforest)

## TEMPERATE ZONES

- The region between the Tropic of Cancer and the Arctic Circle in the Northern Hemisphere, and the Tropic of Capricorn and the Antarctic Circle in the Southern Hemisphere is called temperate zone..
- Climate - neither very hot nor very cold

The largest temperate rainforests, the Tongass National Forest in U.S.

The land of midnight sun - Norway,  
where the Sun doesn't set between 20  
April and 22 August.

## POLAR OR FRIGID ZONE

- The areas between the Arctic Circle and the North Pole in the Northern Hemisphere, and between the Antarctic Circle and South Pole in the Southern Hemisphere is called the Frigid or polar zone.
- Climate - very cold

## SUMMING UP

### WEATHER

Weather is the condition of the atmosphere at a particular place and time.

### CLIMATE

Climate, on the other hand, is the average weather condition of a place over a long period of time.

### FACTORS AFFECTING CLIMATE:

- Latitude (Distance from the Equator)
- As we know that all parts of the Earth donot receive the same amount of sunlight from the Sun, therefore based on the amount of heat received, the Earth is divided into three heat zones -
  - the torrid zone
  - the temperate zone
  - the frigid zone
- Height above sea level
- Distance from the sea
- Winds
- Humidity



**A video describing the difference between climate  
and weather**

[https://youtu.be/rGWLT8\\_89m8](https://youtu.be/rGWLT8_89m8)

## **QUICK RECALL**

- **Four factors that affect the climate of a place.**
- **Extend of torrid zone**
- **Climate of torrid zone**
- **Extend of north temperate zone**
- **Extend of south temperate zone**

## **HOME WORK**

**WRITE DIFFICULT WORDS FROM PAGE 27 IN NOTEBOOK**

## **LEARNING OUTCOME:**

**The learner will be able to :**

- **Know the meaning of weather and climate**
- **Know how distance from the equator affect the climate of a place.**

**THANKING YOU**  
**ODM EDUCATIONAL GROUP**

**SESSION : 3**

**CLASS : 5**

**SUBJECT : SOCIAL SCIENCE**

**CHAPTER NUMBER: 4**

**CHAPTER NAME : CLIMATE**

**SUBTOPIC : HEIGHT ABOVE SEA LEVEL, DISTANCE FROM THE SEA,  
WIND, HUMIDITY**

---

**CHANGING YOUR TOMORROW**

---

## **LEARNING OBJECTIVES:**

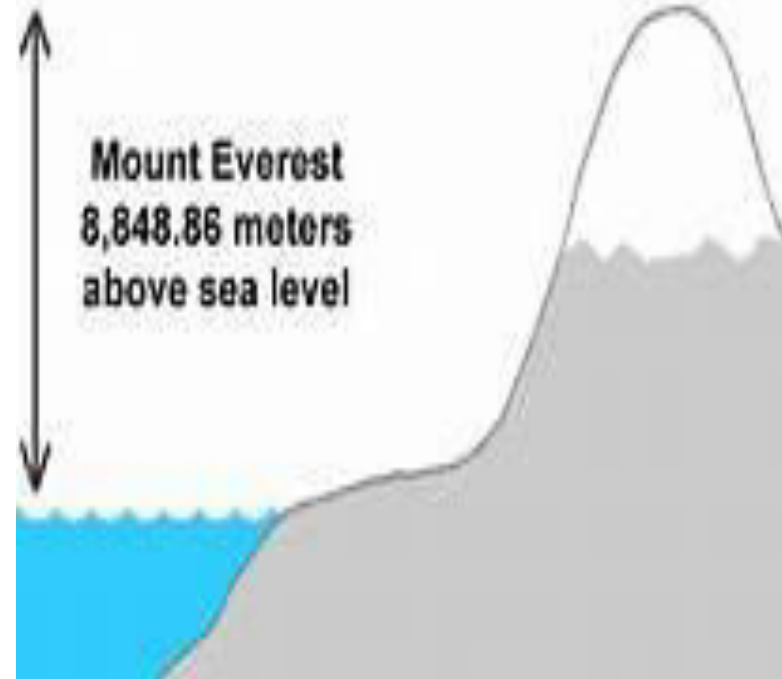
**To enable the learner to know about:**

- **The difference between weather and climate**
- **The factors that affect the climate of a place**
- **How distance from the sea, winds, humidity affects the climate**

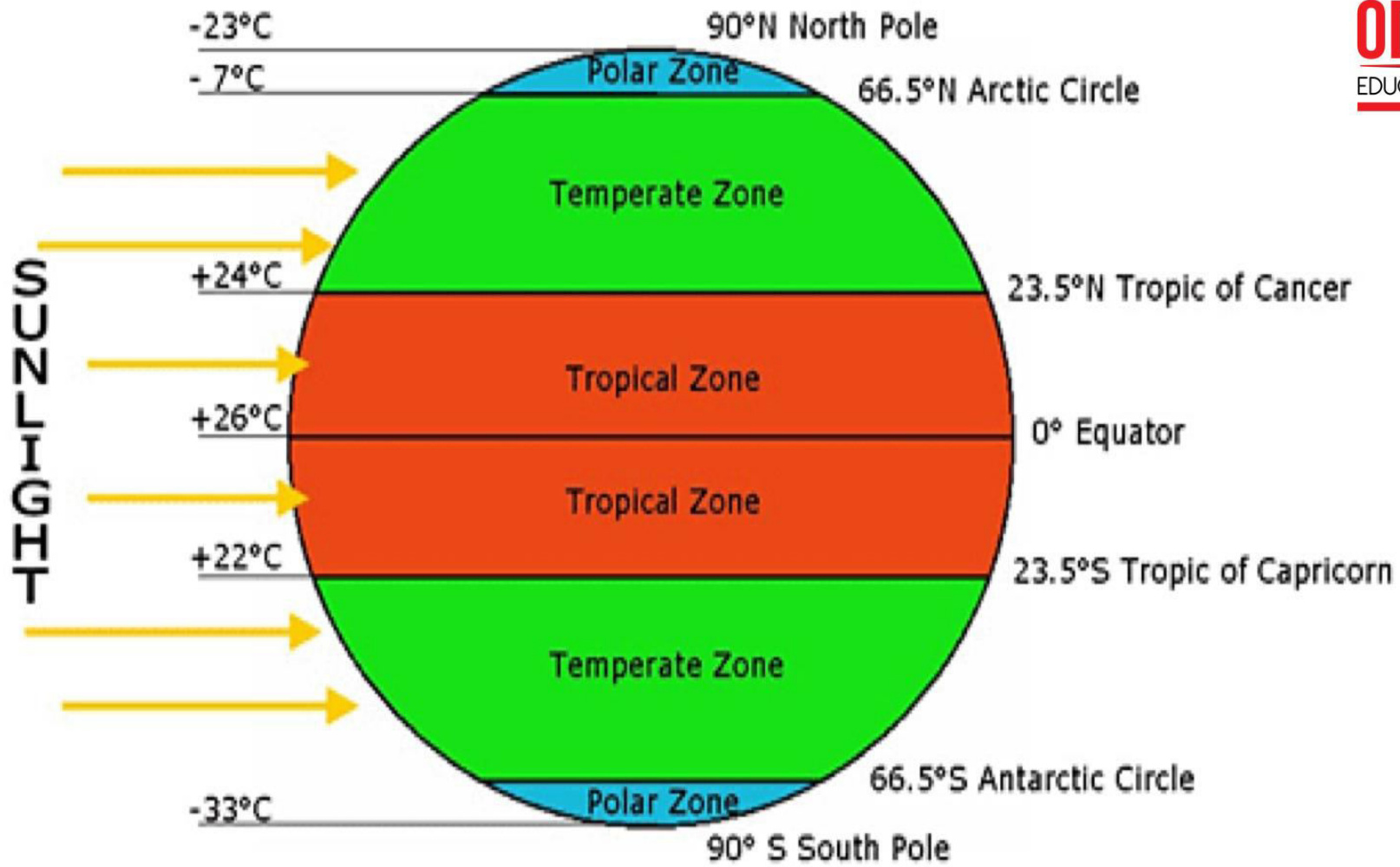
## RECAPITULATION

- **FACTORS AFFECTING CLIMATE:**
- **Latitude (Distance from the Equator)**
- **As we know that all parts of the Earth donot receive the same amount of sunlight from the Sun, therefore based on the amount of heat received, the Earth is divided into three heat zones -**
- **the torrid zone**
- **the temperate zone**
- **the frigid zone**
- **Height above sea level**
- **Distance from the sea**
- **Winds**
- **Humidity**

**Mount Everest has the HIGHEST ALTITUDE**  
(altitude is measured in feet above sea level)



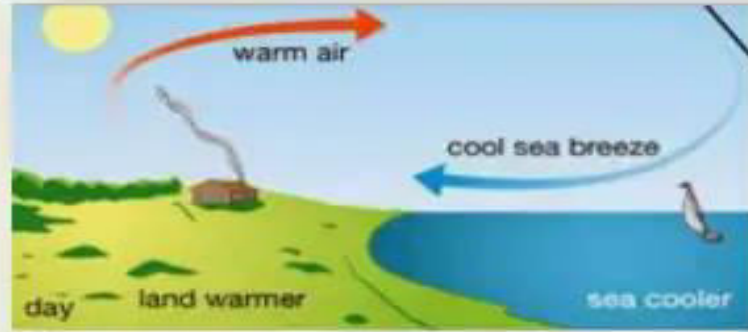




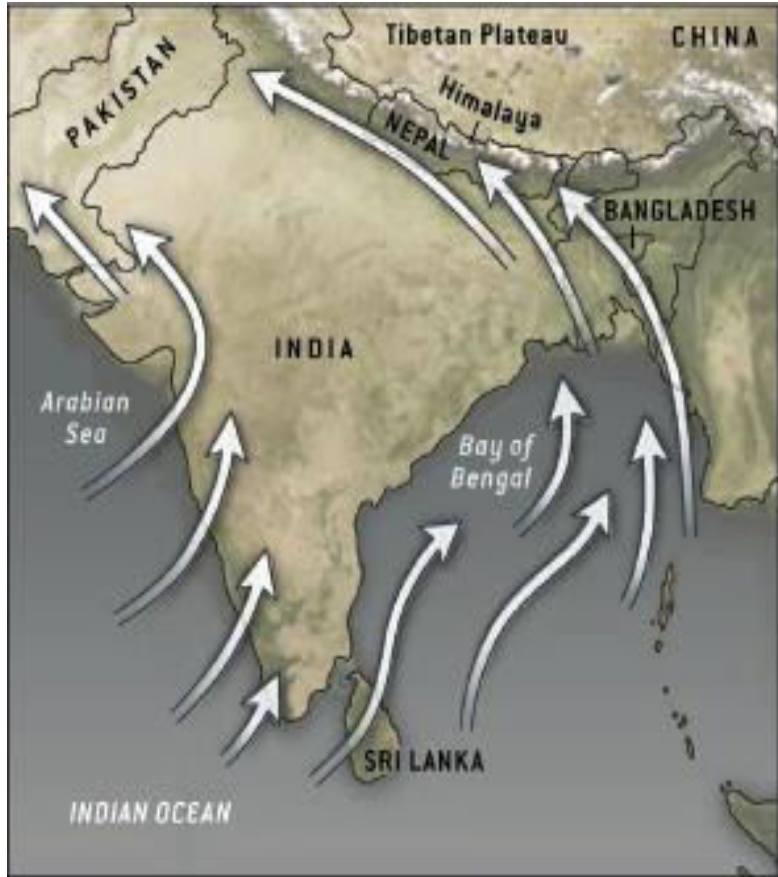
## Distance from the sea

16

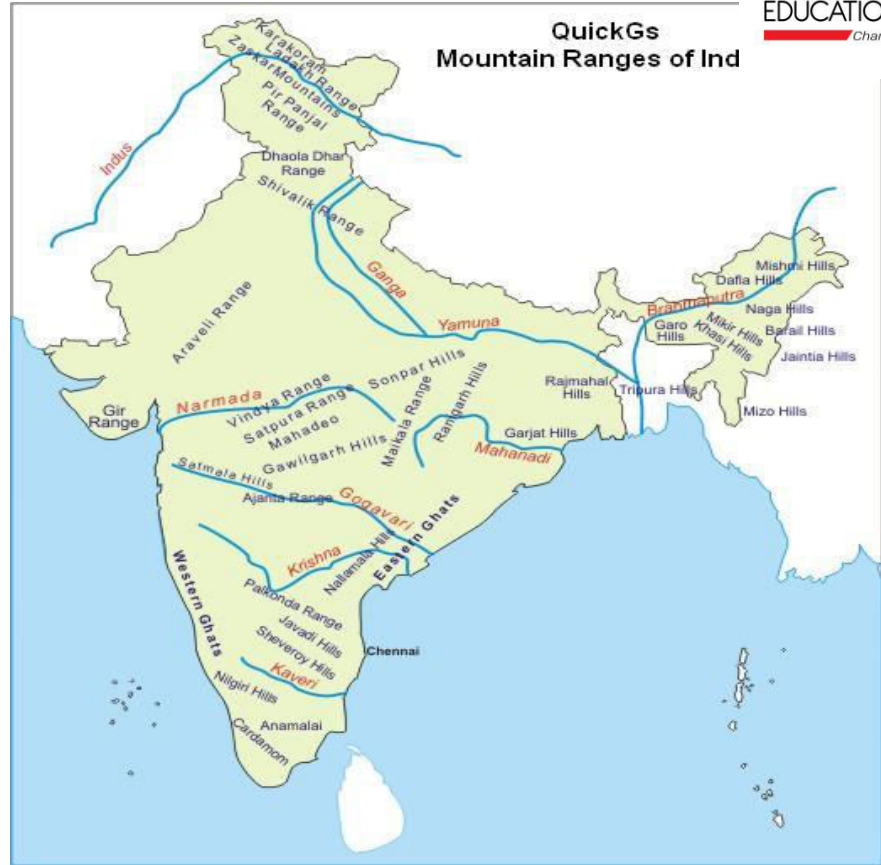
- The sea regulates the temperature because it takes a long time to warm up or to cool down.



# WINDS



## QuickGs Mountain Ranges of Ind



# HUMIDITY

- Humidity is how much water vapor is in the air.
- *Low humidity* is when the air feels dry.
- *High humidity* is when the air feels damp.
- Another weather factor is affected by humidity. This factor is known as “precipitation.”



## SUMMING UP:

# Factors which affect climate

Certain factors affect climate and these explain why climates differ from one region to another.

**Humidity**

**Distance from the sea**

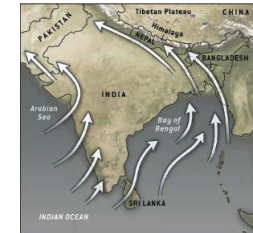

**Altitude**

**Proximity to the Equator**

**Wind**

**HUMIDITY**

- Humidity is how much water vapor is in the air.
- Low humidity is when the air feels dry.
- High humidity is when the air feels damp.
- Another weather factor is affected by humidity. This factor is known as "precipitation."



# Factors affecting climate of a place:

<https://youtu.be/lqIKkOZV3uY>

**Live worksheet on factors affecting climate:**

<https://www.liveworksheets.com/lp1320896gr>

## **HOMEWORK**

**Draw the diagram of climatic zones in the project record.**



## **LEARNING OUTCOME:**

**The learner will be able to :**

- **Know the meaning of weather and climate**
- **Know how climate is affected by distance from the sea, winds & humidity**

**THANKING YOU**  
**ODM EDUCATIONAL GROUP**

**SESSION : 4**

**CLASS : 5**

**SUBJECT : SOCIAL SCIENCE**

**CHAPTER NUMBER: 4**

**CHAPTER NAME : CLIMATE**

**SUBTOPIC : SHORT QUESTION ANSWER, LONG QUESTION ANSWER**

---

**CHANGING YOUR TOMORROW**

---

## **LEARNING OBJECTIVES:**

**To enable the learner to know about:**

- **The difference between weather and climate**
- **The factors that affect the climate of a place**
- **How distance from the sea, winds, humidity affects the climate**

# RECAPITULATION


## Factors which affect climate

Certain factors affect climate and these explain why climates differ from one region to another.

**Humidity**

**HUMIDITY**

- Humidity is how much water vapor is in the air.
- Low humidity is when the air feels dry.
- High humidity is when the air feels damp.
- Another weather factor is affected by humidity. This factor is known as "precipitation."



**Distance from the sea**



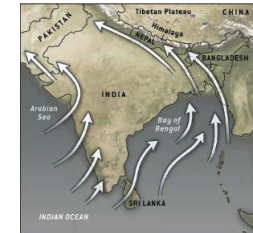
**Altitude**



**Proximity to the Equator**



**Distance from the sea**



## SHORT QUESTION AND ANSWERS

### A. Fill in the blanks.

1. The condition of the atmosphere at a particular place and time is called weather.
2. The rays of the Sun fall vertically on land near the equator, but are slanting near the poles.
3. The heat zone within which the Equator lies is the torrid zone.
4. The heat zone farthest from the Equator is the frigid zone.
5. The heat zone which enjoys a mild climate is the temperate zone.
6. The amount of water vapour in the air is known as humidity.
7. As we go up on a mountain, it becomes cooler ( cooler/warmer )

**B. Write T for true and F for false sentences.**

1. Climate changes from day to day. **F**
2. The air in deserts has low humidity. **T**
3. During the summer months, days are longer near the Equator than far away from it. **F**
4. Most places in the Temperate Zone have a mild climate. **T**
5. The climate near the Equator is hot and wet. **T**

## Multiple choice questions

- The climate of a place is affected by
  - distance from the Equator
  - humidity
  - height above sea level
  - d. all of these**
- Which of these zones receive the maximum heat from the Sun ?
  - a. Tropical zone**
  - Frigid zone
  - Temperate zone
  - d. All of these receive equal amounts of heat
- A city is expected to have a moderate climate if it is
  - near the equator
  - b. near the sea**
  - near the mountains
  - d. near the poles
- If the latitude of a place is 30 N it lies in the
  - Tropical zone
  - b. North temperate zone**
  - Frigid zone
  - d. South temperate zone
- A city lies on the equator. It is located on the plains, far away from the coast. Its climate is expected to be
  - a. hot throughout the year**
  - b. cold throughout the year
  - c. hot in summers and cold in winters
  - d. neither very hot nor very cold



# LONG QUESTION AND ANSWERS

## C. Answer the following questions.

### 1. What is the difference between weather and climate?

Ans. Difference between weather and climate:-

WEATHER	CLIMATE
Weather is the condition of the atmosphere at a particular place and time.	Climate is the average weather condition of a place over a long period of time.
Atmospheric conditions can change within a short period like minutes, hours, days, etc.	2. Atmospheric conditions remains unchanged over a long period of time.
The study of weather forecasting is known as meteorology.	3. The study, observe and predict the changes in climate is known as climatology.

### 2. How does the climate of a place affect the people living there?

Ans. The climate of a place affects the people living there in many ways. Like-

i. The clothes they wear.

ii. The food they eat.

iii. The types of houses they live .

### **3. Name the five important factors that determine the climate of a place.**

**Ans. Five important factors that determine the climate of a place are-**

- i. Distance from the Equator**
- ii. Height above sea level**
- iii. Distance from the sea**
- iv. Winds**
- v. The amount of moisture in the air**

### **4. Why do areas near the Equator receive more heat from the Sun, than those near the poles?**

**Ans. Areas near the Equator receive more heat from the Sun because:-**

- i. Sun rays are vertical or direct at the Equator and slanting at the poles.**
- ii. The direct rays have to heat up a smaller area and slanting rays have to heat up a larger area of the Earth's surface.**

**Hence, places near the Equator get heated more than places near the poles.**

## **LONG QUESTION AND ANSWERS**

### **C. Answer the following questions.**

**5. Where are the following heat zones located? Describe the general climate of each zone.**

**a. Frigid Zones;      b. Temperate Zones;      c. Tropical zone**

**Ans.5.a) Frigid Zones -**

**i. Heat zone between Arctic Circle and the North Pole in Northern Hemisphere - North Frigid Zone, Climate - Very cold.**

**ii. Heat zone between Antarctic Circle and the South Pole in Southern Hemisphere - South Frigid Zone, Climate - Very cold.**

**b) Temperate Zones-**

**i) Heat zone between Tropic of Cancer and the Arctic Circle in Northern Hemisphere - North Temperate Zone, Climate - Mild ( neither hot nor cold)**

**ii) Heat zone between Tropic of Capricorn and the Antarctic Circle in Southern Hemisphere - South Temperate Zone, Climate - Mild ( neither hot nor cold )**

**c) Tropical Zone -**

**i) Heat zone between the Tropics of Cancer and Capricorn - Tropical or Torrid Zone, Climate - Hot and wet**

## 6. How do winds affect the climate of a place?

Ans. Winds flow in particular directions in different parts of the world. They may be -

- i) Hot wind - Raise the temperature of the lands over which they blow.
- ii) Cool wind - Blow from the Polar regions fall the temperature over which they blow.
- iii) Dry or warm wind - Blow from the sea are full of moisture bring rainfall to coastal areas.

## 7. How is the humidity in Chennai different from that of Jaisalmer in the Thar Desert?

Ans. Difference in humidity in Chennai and Jaisalmer -

Chennai	Jaisalmer
i. It is a coastal area	i. It is in Thar Desert
ii. The air is laden with moisture and thus the humidity level is high.	ii. The air has less moisture due to lack of availability of water and thus humidity level is low.

## **HOMEWORK**

### **Activity**

**Define land breeze and sea breeze in the project record and paste the picture related to it.**

## **LEARNING OUTCOME:**

**The learner will be able to :**

- **Know the meaning of weather and climate**
- **Know how climate is affected by distance from the sea, winds & humidity**

**THANKING YOU**  
**ODM EDUCATIONAL GROUP**

**SESSION : 5**  
**CLASS : 5**  
**SUBJECT : SOCIAL SCIENCE**  
**CHAPTER NUMBER: 4**  
**CHAPTER NAME : CLIMATE**  
**SUBTOPIC : CLASS TEST, MAP WORK PAGE-9**

---

**CHANGING YOUR TOMORROW**

---



## **LEARNING OBJECTIVES:**

**To enable the learner to know about:**

- **Their talent**
- **How much they have sharpen their mind.**

# RECAPITULATION


## Factors which affect climate

Certain factors affect climate and these explain why climates differ from one region to another.

### Humidity

**HUMIDITY**

- Humidity is how much water vapor is in the air.
- Low humidity is when the air feels dry.
- High humidity is when the air feels damp.
- Another weather factor is affected by humidity. This factor is known as "precipitation."



### Distance from the sea



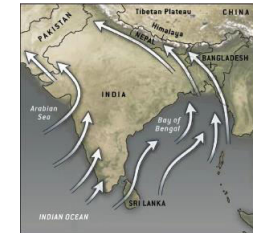
### Altitude



### Proximity to the Equator



### Distance from the sea

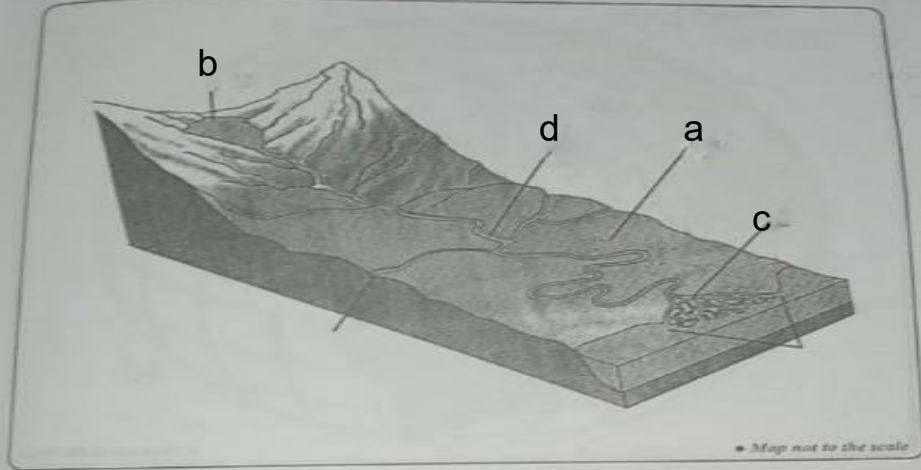


<https://youtu.be/sn6GLgaTY0M>

## MAP WORK PAGE-9

### 9. RIVER BED

CONE MAP SHEET



1. Indicate the following in the given map-
  - a) Alluvial plain
  - b) Source of River
  - c) Delta
  - d) Tributary

## Class Test

### A. Define:

(1X5=5)

#### 1. Humidity -

Ans. The amount of water vapour in the air is called humidity.

#### 2. North Frigid Zones -

Ans. The area between the Arctic Circle and the North Pole in the Northern Hemisphere is North Frigid Zone.

#### 3. Mild climate -

Ans. Climate which is neither very hot nor very cold is called mild climate.

#### 4. Meteorologists -

Ans. Scientists who study and predict the weather are called meteorologists.

#### 5. Altitude -

Ans. The distance above sea level is called altitude.

## **B. Answer the following questions.**

**1. Delhi is further away from the equator than Chennai. But summer in Chennai is not as hot as in Delhi. What are the reasons for this? (3)**

**Ans.** Delhi is further away from the equator than Chennai. But summer in Chennai is not as hot as in Delhi . Because Chennai has the moderating effect of the sea as it is nearer to to the sea. But Delhi is far from the moderating effect of the sea and thus experience more hot in summer.

**2. Why do areas near the Equator receive more heat from the Sun, than those near the poles? (2)**

**Ans.** Areas near the Equator receive more heat from the Sun because:-

- i.** Sun rays are vertical or direct at the Equator and slanting at the poles.
- ii.** The direct rays have to heat up a smaller area and slanting rays have to heat up a larger area of the Earth's surface.

**Hence, places near the Equator get heated more than places near the poles.**

**HOMEWORK**  
**No home work**

## **LEARNING OUTCOME:**

**The learner will be able to :**

- **Have a brief view on the chapter**
- **Use their content knowledge in their day-to-day life**



**THANKING YOU**  
**ODM EDUCATIONAL GROUP**

**SESSION : 2**

**CLASS : 5**

**SUBJECT : SOCIAL SCIENCE**

**CHAPTER NUMBER: 4**

**CHAPTER NAME : CLIMATE**

**SUBTOPIC : DISTANCE FROM THE EQUATOR**

---

**CHANGING YOUR TOMORROW**

---

## **LEARNING OBJECTIVES:**

**To enable the learner to know about:**

- **The difference between weather and climate**
- **The factors that affect the climate of a place**
- **How distance from the equator affects the climate**

### WEATHER

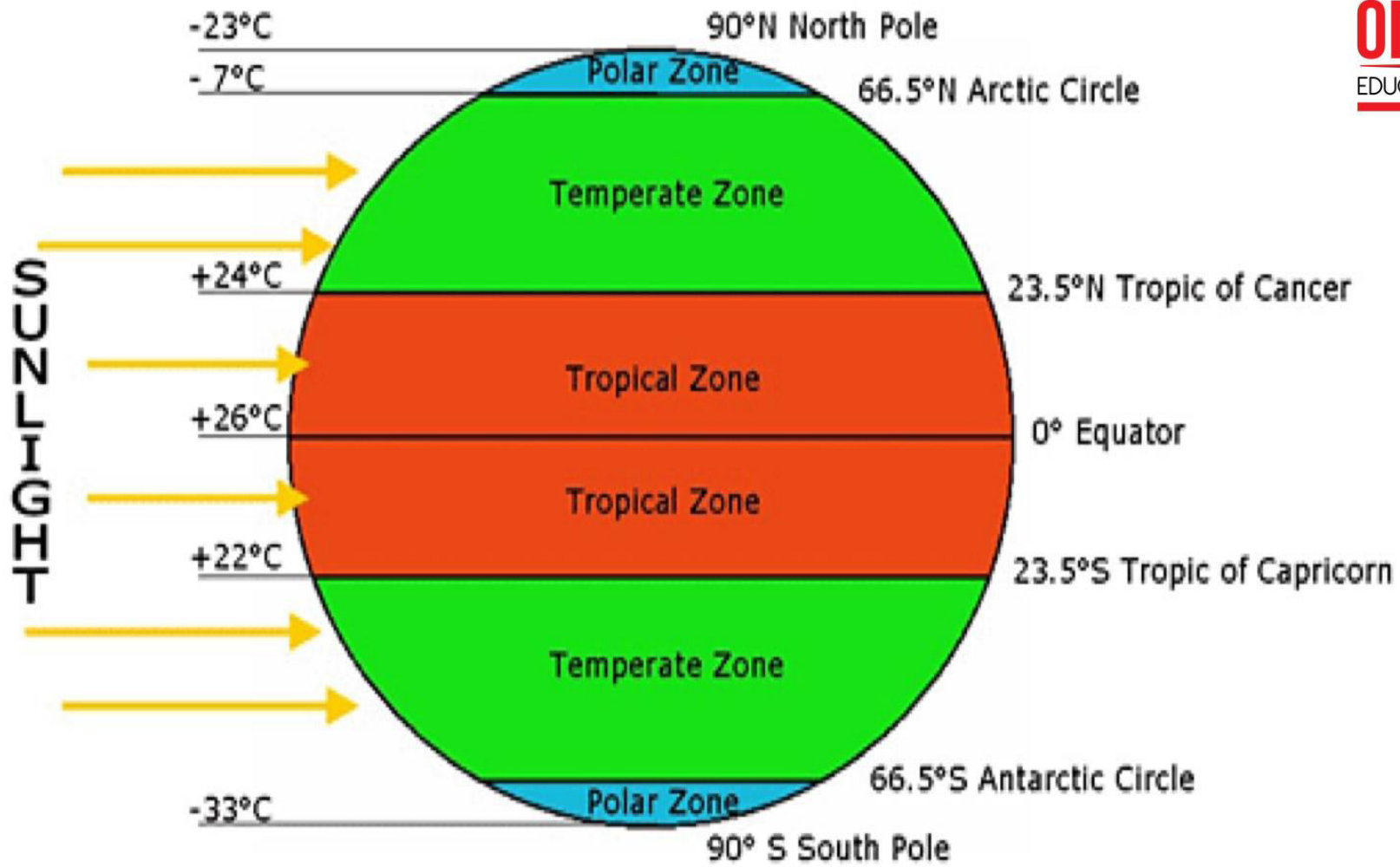
Weather is the condition of the atmosphere at a particular place and time.

### CLIMATE

Climate, on the other hand, is the average weather condition of a place over a long period of time.

### FACTORS AFFECTING CLIMATE:

- Latitude (Distance from the Equator)
- As we know that all parts of the Earth donot receive the same amount of sunlight from the Sun, therefore based on the amount of heat received, the Earth is divided into three heat zones -
  - the torrid zone
  - the temperate zone
  - the frigid zone
- Height above sea level
- Distance from the sea
- Winds
- Humidity

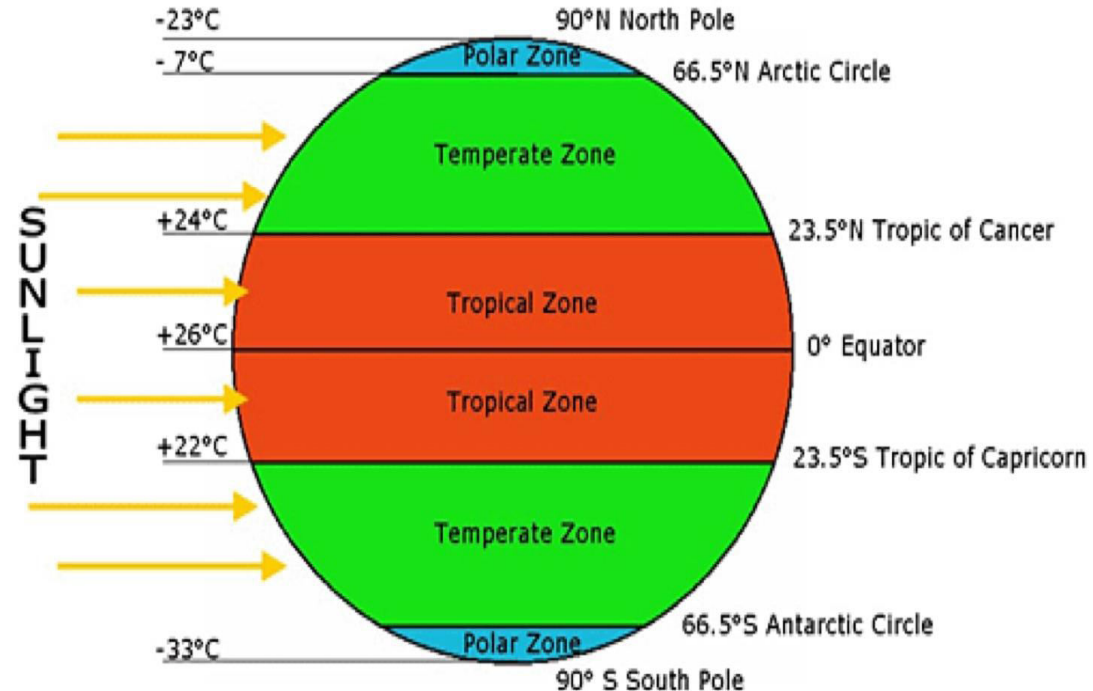


The World densest forest, the South American Amazon lies in Torrid or Tropical zone. (Tropical Rainforest)

**DID YOU KNOW**  
Torrid zone was first identified by the ancient Greek philosopher Aristotle

## TORRID OR TROPICAL ZONE

- The region between Tropic of Cancer in North and Tropic of Capricorn in South is called torrid or tropical zone.
- Climate - hot and humid throughout the year
- Hottest zone as it receives direct rays of the Sun.
- Receives heavy rainfall.

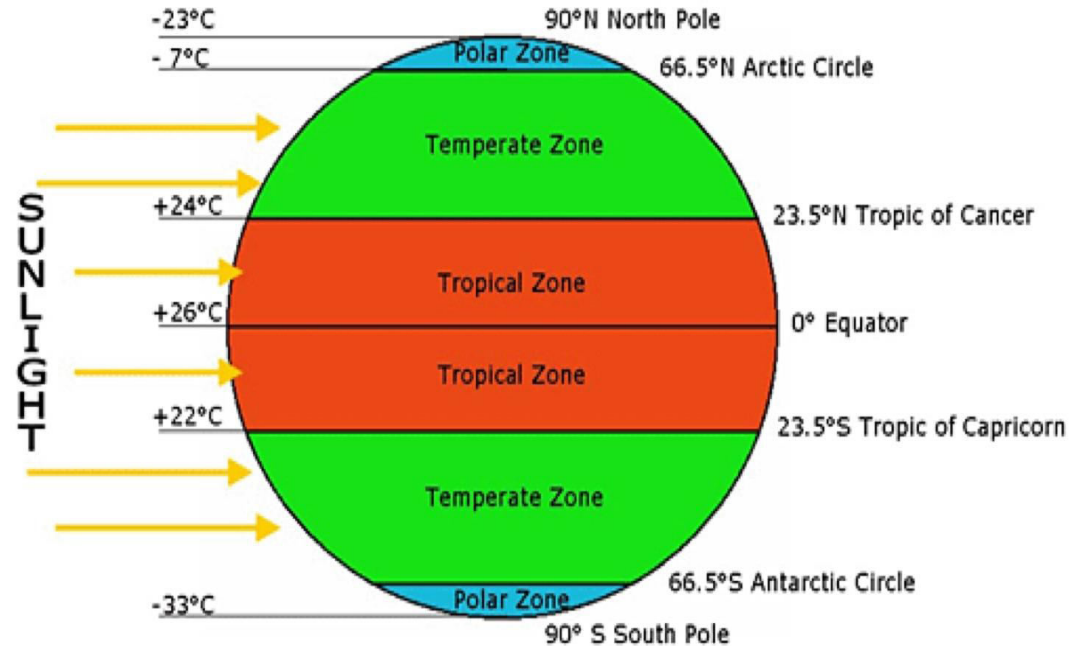


The World densest forest, the South American Amazon lies in Torrid or Tropical zone. (Tropical Rainforest)

**DID YOU KNOW**  
Torrid zone was first identified by the ancient Greek philosopher Aristotle

## TORRID OR TROPICAL ZONE

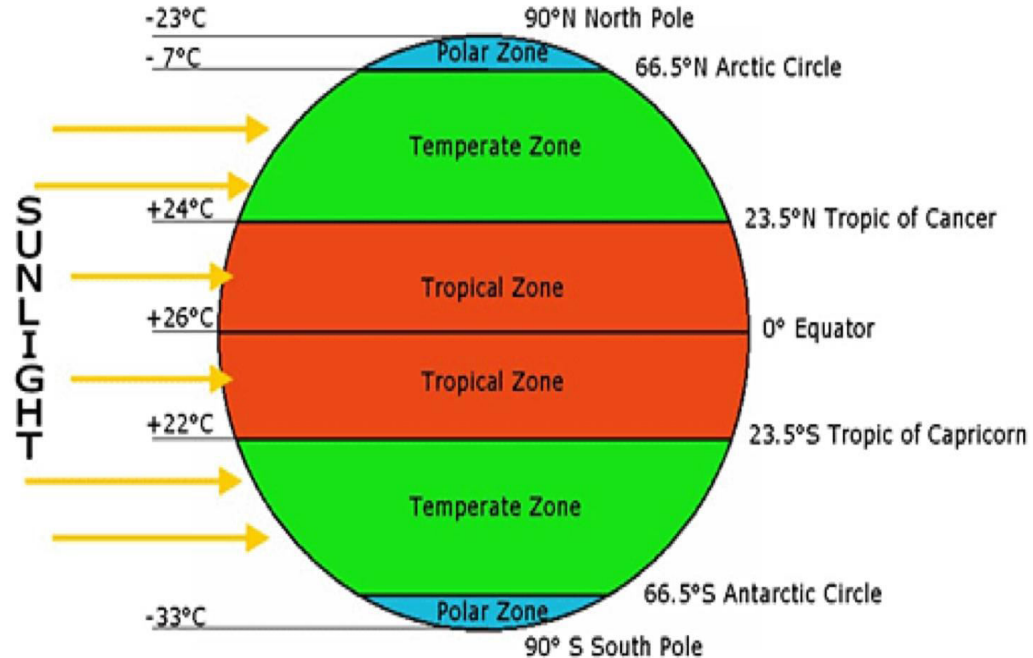
- The region between Tropic of Cancer in North and Tropic of Capricorn in South is called torrid or tropical zone.
- Climate - hot and humid throughout the year
- Hottest zone as it receives direct rays of the Sun.
- Receives heavy rainfall.



The largest temperate rainforests, the Tongass National Forest in U.S.

## TEMPERATE ZONES

- The region between the Tropic of Cancer and the Arctic Circle in the Northern Hemisphere, and the Tropic of Capricorn and the Antarctic Circle in the Southern Hemisphere is called temperate zone..
- Climate - neither very hot nor very cold, or mild climate.

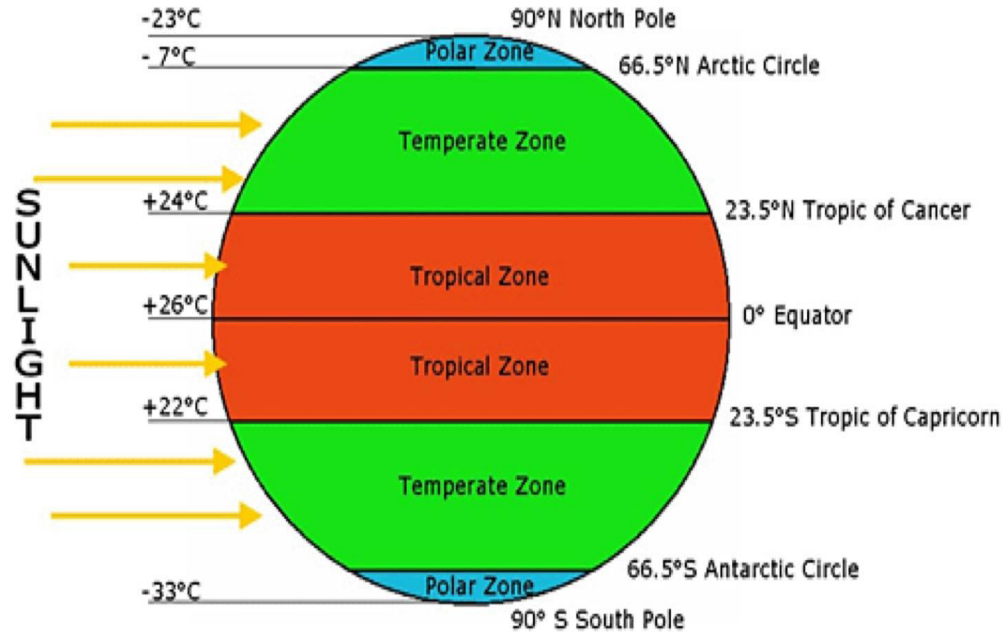




The land of midnight sun - Norway, where the Sun doesn't set between 20 April and 22 August.

## POLAR OR FRIGID ZONE

- The areas between the Arctic Circle and the North Pole in the Northern Hemisphere, and between the Antarctic Circle and South Pole in the Southern Hemisphere is called the Frigid or polar zone.
- Climate - very cold

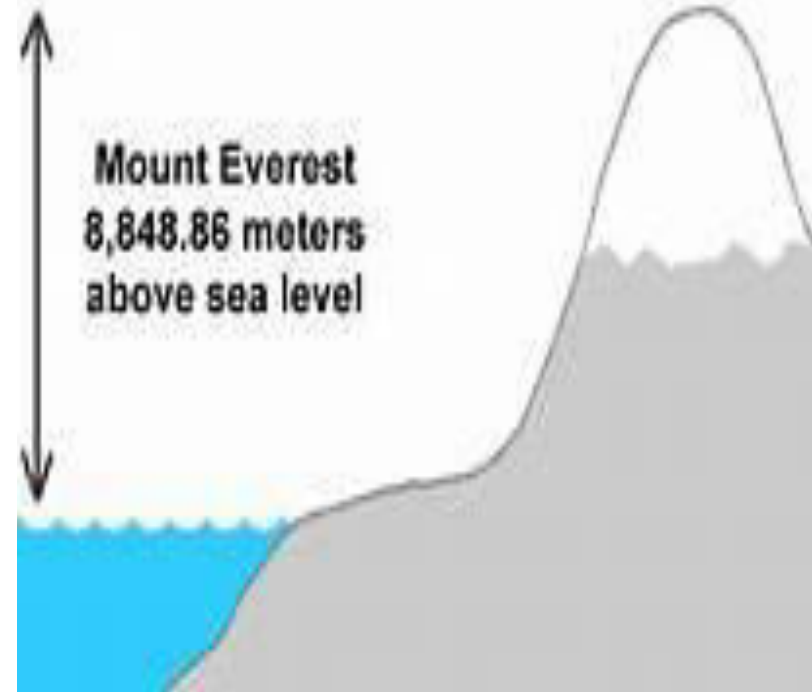


## HEIGHT ABOVE THE SEA LEVEL

- The height of a place above the sea level is known as its 'altitude'.
- The temperature of a place depends upon its altitude.
- As we move above the sea level the temperature begins to decrease. This is the reason why peaks of mountains remain covered with snow.

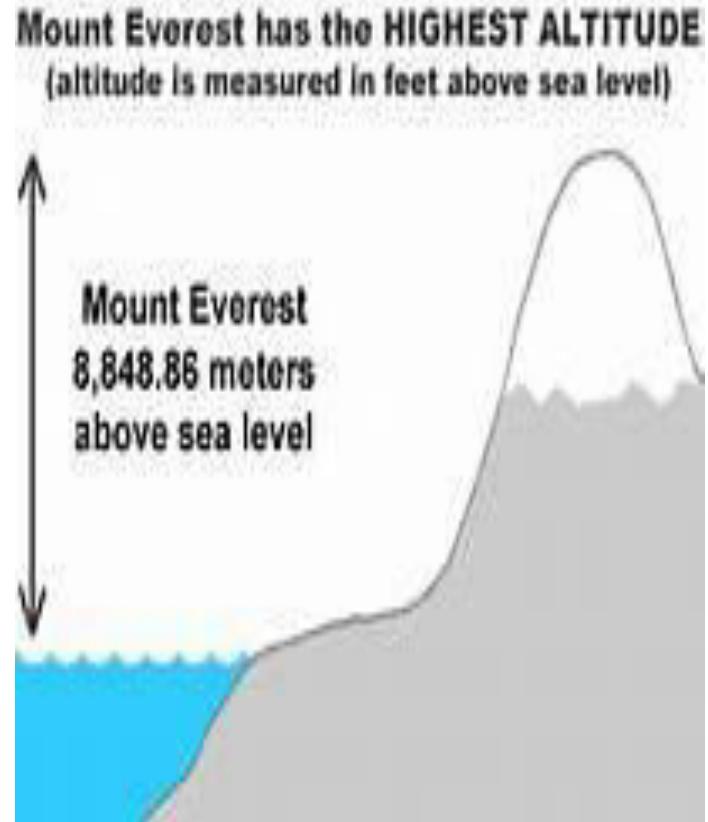
Therefore, two places located on the same temperature zones may have different climates because of the difference in their altitude.

**Mount Everest has the HIGHEST ALTITUDE**  
(altitude is measured in feet above sea level)



## SUMMING UP

- **FACTORS AFFECTING CLIMATE:**
- **Latitude (Distance from the Equator)**
- **As we know that all parts of the Earth donot receive the same amount of sunlight from the Sun, therefore based on the amount of heat received, the Earth is divided into three heat zones -**
- **the torrid zone**
- **the temperate zone**
- **the frigid zone**
- **Height above sea level**
- **Distance from the sea**
- **Winds**
- **Humidity**



# Factors affecting climate of a place:

<https://youtu.be/lqIKkOZV3uY>

**Live worksheet on Earth's Climate Zones:**

<https://www.liveworksheets.com/jg1547139ec>

## **HOMEWORK**

**Delhi is farther away from the Equator than Chennai. But summer in Chennai is not as hot as in Delhi. What are the reasons for this? Write in the project record.**

## **LEARNING OUTCOME:**

The learner will be able to :

- Know the meaning of weather and climate
- Know how distance from the equator affect the climate of a place.
- Know how climate is affected by altitude

**THANKING YOU**  
**ODM EDUCATIONAL GROUP**