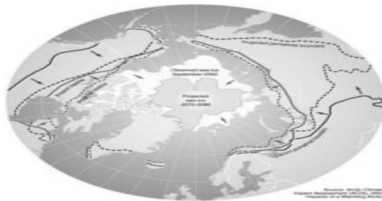# Lesson No. 4

The Temperature Zones of the World

Expected Learning Outcome

i. To learn about various factors which influence the climate of a place.
ii. To learn about the three temperature or heat zones as an introduction.
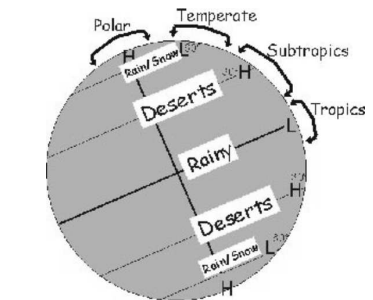
SOLUTIONS TO TEXT BOOK EXERCISES

1. **Fill in the blanks:**
   a. Climate is affected by the **distance** from the equator.
   b. Places near the equator receive **direct** rays of the Sun.
   c. The torrid zone extends within the **tropics.**
   d. In the torrid zone there is no **winter** season.
   e. The frigid zone is the **coldest** zone.

2. **Match the columns:**
   a. Places near the tropics   Hot zone
   b. Places near the poles   Get slanting rays of the Sun
   c. Wind blowing from the sea   Carry moisture
   d. Torrid zone   Is hottest
   e. Frigid zone   Cold zone

3. **Choose the correct options:**
   a. The higher we go the **cooler** it gets.
   b. Sea breeze has a **cooling** effect.
   c. There are **indistinct** seasons in the torrid zone.
   d. In the temperate zone summer days are **longer**.
   e. As we go higher the rays of the Sun become **slanting**.

4. **Unscramble the following letters to form the correct word:**
   a. FRIGID   This is the coldest zone
   b. TORRID   This is the hottest zone
   c. HUMIDITY   This affects climate of a place
   d. TEMPERATE   This is moderate climate
   e. EQUATOR   It has equal day and night

5. **Answer the following questions:**
   a. The temperature zones have been divided on the basis of the intensity of heat received by a particular place. The different divisions are torrid, temperate and frigid zones.
   b. The torrid zone extends within the tropics. It is the hottest zone on the earth as it receives the direct rays of the Sun. As it extends over both hemispheres it is divided into north torrid zone and south torrid zone. This region has tropical climate and is hot and wet because heat leads to lot of evaporation and rainfall. There is no winter season in this zone.
   c. The temperate zone lies between the torrid and frigid zones. Depending on its location it is divided into north temperate zone- between Tropic of Cancer and Arctic Circle- and south temperate zone- between the tropic of Capricorn and the Antarctic Circle.
   d. Life in the frigid zones is very difficult as frigid zones are the coldest region and in some parts there is permanent ice cover on the ground.

<u>**ADDITIONAL HIGHER ORDER QUESTIONS**</u>

1. What are the factors affecting climate of a place?

2. What is the difference between the torrid and the frigid zones?

<u>**ADDITIONAL QUESTIONS**</u>

1. **Answer the following questions:**

   a. **What are the factors that influence the climate of a place?**

   The factors that influence the climate of a place are:

   i. Distance of a place from the equator

   ii. Altitude

   iii. Distance from the sea

   iv. Humidity

   v. Winds

   b. **What is altitude? Does it affect the climate of a place?**

   The altitude of a place is its height above the sea level. As we know, the higher we go the cooler it becomes. So the places at higher altitudes are cooler than the places at lower altitudes.

   c. **How many temperature zones are there? Name them?**

   The earth has been divided into three temperature zones-

   i. The torrid zone

   ii. The temperate zone

   iii. The frigid zone

   d. **How does the latitude of a place affect its temperature?**

   Places located near the equator receive direct rays of the Sun and are hotter than the places at higher latitudes. Places nearer the poles get slanting rays of the Sun which have to travel through a greater distance and are thus less hot. This is how latitude affects the temperature of a place.

2. **Fill in the blanks:**

   a. Depending on the place of origin the winds can be either **hot** or **cool.**

   b. **Humidity** causes us to perspire.

   c. Places near the **sea** are neither very hot nor very cold.

   d. The **summer** and **winter** seasons are very distinct in temperate zone.

3. **Match the columns:**

   a. Torrid zones extend   within the tropics

   b. The frigid zone is   the coldest zone

   c. It has a moderate climate   temperate zone

   d. Heat zones are also called   temperature zones

* * * * * *