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MAJOR LANDFORMS OF THE EARTH



- Tick the correct answers.**

 - (a) The mountain range that separates Europe from Asia is
 - (i) The Andes
 - (ii) the Himalayas
 - (iii) the Urals
 - (b) The continent of North America is linked to South America by
 - (i) an Isthmus
 - (ii) a Strait
 - (iii) a Canal
 - (c) The major constituent of atmosphere by per cent is
 - (i) Nitrogen
 - (ii) Oxygen
 - (iii) Carbon dioxide
 - (d) The domain of the earth consisting of solid rocks is
 - (i) the Atmosphere
 - (ii) the Hydrosphere
 - (iii) the Lithosphere
 - (e) Which is the largest continent?
 - (i) Africa
 - (ii) Asia
 - (iii) Australia

Fill in the blanks.

 - (a) The deepest point on the earth is _____ in the Pacific Ocean.
 - (b) The _____ Ocean is named after a country.
 - (c) The _____ is a narrow contact zone of land, water and air supports life.
 - (d) The continents of Europe and Asia together are known as _____
 - (e) The highest mountain peak on the earth is _____

3. Fill in the blanks.

1. Cut the outline of the continents from an outline map of the world and arrange them according to their decreasing sizes.
 2. Cut the outline of the continents from an outline map of the world and try to fit them together as a jigsaw puzzle.
 3. Collect pictures of expeditions to the Himalayas. Write about the kind of equipment carried by the climbers for protection against sunshine, temperature and the lack of air.

Things To Do

Do you know?

A hill is a land surface that rises higher than the surrounding area. Generally, a steep hill with an elevation of more than 600 metres is termed as a mountain. Name some mountains with a height of more than 8,000 metres.



You must have seen some of the landform features as shown in the Figure 6.1 below. You will notice that the surface of the earth is not the same everywhere. The earth has an infinite variety of landforms. Some parts of the lithosphere may be rugged and some flat.

These landforms are a result of two processes. You will be amazed to know that the ground you are standing on is slowly moving. Within the earth, a continuous movement is taking place. The first, or the **internal process** leads to the upliftment and sinking of the earth's surface at several places.



Figure 6.1 : Landforms

THE EARTH : OUR HABITAT



Let's Do
Making of a Mountain :
The second, or the **external process** is the continuous wearing down and rebuilding of the land surface. The surface is being lowered by the process of **erosion**. The surface is being lowered by the process of erosion and rebuilt by the process of **deposition**. These two processes are carried out by running water, ice and wind. Broadly, we can group different landforms depending on elevation and slope as **mountains, plateaus and plains**.

MOUNTAINS

- A **mountain** is any natural elevation of the earth surface. The mountains may have a small summit and a broad base. It is considerably higher than the surrounding area. Some mountains are even higher than the clouds. As you go higher, the climate becomes colder.
- In some mountains, there are permanently frozen rivers of ice. They are called **glaciers**. There are some mountains you cannot see as they are under the sea. Because of harsh climate, less people live in the mountain areas. Since the slopes are steep, less land is available for farming.
- All you require is a pile of paper.
 - Put the papers on your table.
 - Push the papers from both sides by your hands.
 - The sheet will be folded and rise into a peak.
 - You have made a mountain!
- In the same process our Himalayas and the Alps were formed.

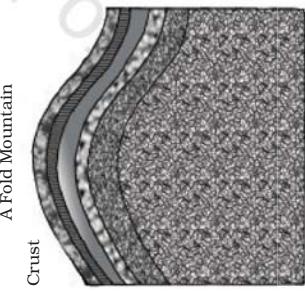


Figure 6.2 : Fold Mountains (Himalayas)

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Do you know?

Mauna Kea (Hawaii) in the Pacific Ocean is an underwater mountain. It is higher than Mount Everest being 10,205 metres high.

There are three types of mountains- **Fold Mountains, Block Mountains and the Volcanic Mountains**. The Himalayan Mountains and the Alps are young fold mountains with rugged relief and high conical peaks. The Aravali range in India is one of the oldest fold mountain systems in the world. The range has considerably worn down due to the processes of erosion. The Appalachians in North America and the Ural mountains in Russia (Figure 5.1) have rounded features and low elevation. They are very old fold mountains.

Block Mountains are created when large areas are broken and displaced vertically. The uplifted blocks are termed as **horsts** and the lowered blocks are called **graben**. The Rhine valley and the Vosges mountain in Europe are examples of such mountain systems. Locate them on the world map in the atlas and find out some more examples of this type of landforms.

Figure 6.3 : A Block Mountain

Volcanic mountains are formed due to **volcanic activity**. Mt.Kilimanjaro in Africa and Mt.Fujiyama in Japan are examples of such mountains.

Mountains are a very useful. The mountains are a **storehouse** of water. Many rivers have their source in the **glaciers** in the mountains. Reservoirs are made and the water is harnessed for the use of people. Water from the mountains is also used for irrigation and generation of hydro-electricity. The **river valleys** and **terraces** are ideal for cultivation of crops. Mountains have a rich variety of **flora** and **fauna**. The forests provide fuel, fodder, shelter and other products like

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African plateau is famous for gold and diamond mining. In India huge reserves of iron, coal and manganese are found in the Chhotanagpur plateau.

In the plateau areas, there may be several waterfalls as the river falls from a great height. In India, the Hunderu falls in the Chhotanagpur plateau on the river Subarnarekha and the Jog falls in Karnataka are examples of such waterfalls. The lava plateaus are rich in black soil that are fertile and good for cultivation. Many plateaus have scenic spots and are of great attraction to tourists.

PLAINS

Plains are large stretches of flat land. They are, generally, not more than 200 metres above mean sea level. Some plains are extremely level. Others may be slightly rolling and undulating. Most of the plains are formed by rivers and their tributaries. The rivers flow down the slopes of mountains and erode them. They carry forward the eroded material. Then they deposit their load consisting of stones, sand and silt along their courses and in their valleys. It is from these deposits that plains are formed.

Generally, plains are very fertile. Construction of transport network is easy. Thus, these plains are very thickly-populated regions of the world. Some of the largest plains made by the rivers are found in Asia and North America. For example, in Asia, these plains are formed by the Ganga and the Brahmaputra in India and the Yangtze in China.

Plains are the most useful areas for human habitation. There is great concentration of people as more flat land is available for building houses, as well as for cultivation.



Figure 6.6 : Plains

MAJOR LANDFORMS OF THE EARTH

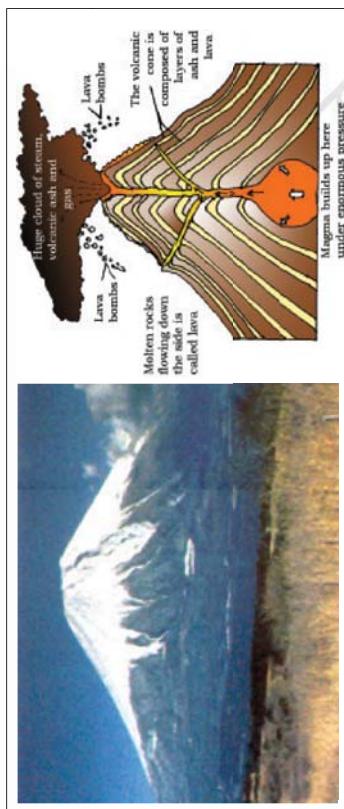


Figure 6.4 : A Volcanic Mountain

PLATEAUS

A plateau is an elevated flat land. It is a flat-topped **table land** standing above the surrounding area. A plateau may have one or more sides with steep slopes. The height of plateaus often varies from few hundred metres to several thousand metres. Plateaus, like mountains may be young or old. The Deccan plateau in India is one of the oldest plateaus. The East African Plateau in Kenya, Tanzania, and Uganda, and the Western plateau of Australia are other examples.

The Tibet plateau (Figure 5.1, p.31) is the highest plateau in the world with a height of 4,000 to 6,000 metres above the mean sea level.

Plateaus are very useful because they are rich in mineral deposits. As a result, many of the mining areas in the world are located in the plateau areas. The

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Figure 6.5 : Plateau



MAJOR LANDFORMS OF THE EARTH

Because of fertile soils, the land is highly productive for cultivation. In India too, the Indo-Gangetic plains are the most densely populated regions of the country.

LANDFORMS AND THE PEOPLE

Humans have been living on different kinds of landforms in different ways. Life is difficult in mountainous areas. Plains provide much better conditions. It is easy to grow crops, build a house or a road in a plain than a mountain. Can you point out some differences in the ways people live on different kinds of landforms? Sometimes, natural calamities such as earthquakes, volcanic eruption, storms and floods cause widespread destruction. Huge loss of life and property takes place. By creative awareness about such incidences we may lower the risks.

You may find out from your own surroundings in how many ways we use the land and water. Quite often we use the land in a wasteful manner, for example constructing houses on a fertile land. Similarly we throw garbage on land or in water making them dirty. We should avoid using such important gifts of nature in a careless manner. The available land is not only for our use. It is our duty to leave the earth a better place for future generations as well.



Figure 6.7 : Rope Bridge (Arunachal Pradesh)

Figure 6.8 : A polluted river



1. Look carefully at photographs nos. 1-10. Write one sentence about each of the photograph.

2. Name the landform features shown in the photographs nos. 1,2 and 7.

3. What appears to be the main use of this land? (Photograph no. 9)

4. What activities do you see in the photograph nos. 3,6,8 and 9.

EXERCISES

1. Answer the following questions briefly.

- What are the major landforms?
- What is the difference between a mountain and a plateau?
- What are the different types of mountains?
- How are mountains useful to man?
- How are plains formed?
- Why are the river plains thickly populated?
- Why are mountains thinly populated?

2. Tick the correct answers.

- The mountains differ from the hills in terms of
(i) elevation (ii) slope (iii) aspect
- Glaciers are found in
(i) the mountains (ii) the plains (iii) the plateaus
- The Deccan Plateau is located in
(i) Kenya (ii) Australia (iii) India
- The river Yangtze flows in
(i) South America (ii) Australia (iii) China
- An important mountain range of Europe is
(i) the Andes (ii) the Alps (iii) the Rockies

3. Fill in the blanks.

- A _____ is an unbroken flat or a low-level land.
- The Himalayas and the Alps are examples of _____ types of mountains.
- _____ areas are rich in mineral deposits.
- The _____ is a line of mountains.
- The _____ areas are most productive for farming.

THINGS TO DO

- What kind of landforms are found in your state? Based on the reading of this chapter, say how they are of use to the people.

Map Skills

- On an outline map of the world, mark the following:
 - Mountain ranges: Himalayas, Rockies and Andes.
 - Plateau : Tibet.



7

OUR COUNTRY - INDIA

India is a country of vast geographical expanse. In the north, it is bound by the lofty **Himalayas**. The **Arabian Sea** in the west, the **Bay of Bengal** in the east and the **Indian Ocean** in the south, wash the shores of the Indian Peninsula.

India has an area of about 3.28 million sq. km. The north-south extent from Kashmir to Kanyakumari is about 3,200 km. And the east-west extent from Arunachal Pradesh to Kuchchh is about 2,900 km. The lofty mountains, the Great Indian Desert, the Northern Plains, the uneven plateau surface and the coasts and islands present a diversity of landforms. There is a great variety in the climate, vegetation, wildlife as well as in the language and culture. In this diversity, we find unity that is reflected in traditions that bind us as one nation. India has a population of more than one hundred twenty crores since the year 2011. It is the **second most populous country of the world** after China.

Do you know?

Large countries which stretch extensively from east to west do not have a single Standard Time for the whole country. The USA and Canada have seven and six time zones respectively. Do you remember how many time zones are there in Russia?

LOCATIONAL SETTING

India is located in the northern hemisphere. The **Tropic of Cancer (23°30'N)** passes almost halfway through the country (Figure 7.2). From south to north, main land of India extends between **8°4'N** and **37°6'N latitudes**. From west to east, India extends between **68°7'E** and **97°25'E longitudes**. If we divide the world into eastern and western hemispheres, which hemisphere would India belong to? Due to great longitudinal extent of about 29°, there could be a wide differences in local time of places located at two extreme points of India. As such, the difference between these two points would be of

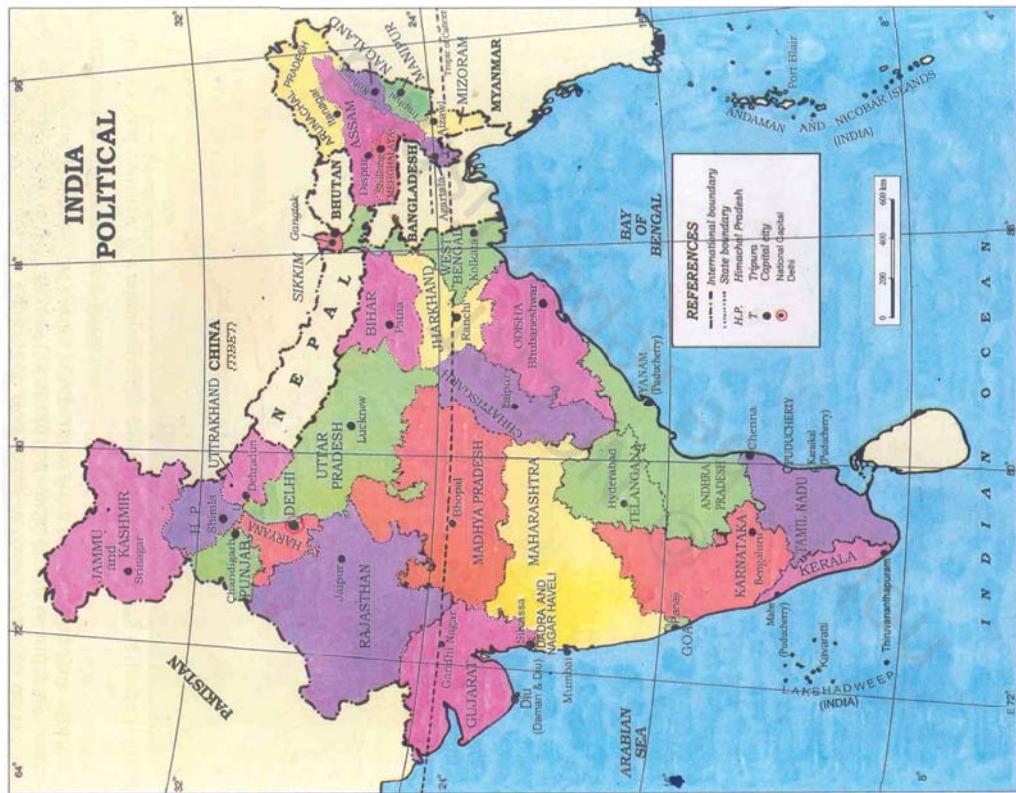


Figure 7.2 : Political map of India
* Telangana became 29th state of India in June 2014

OUR COUNTRY – INDIA

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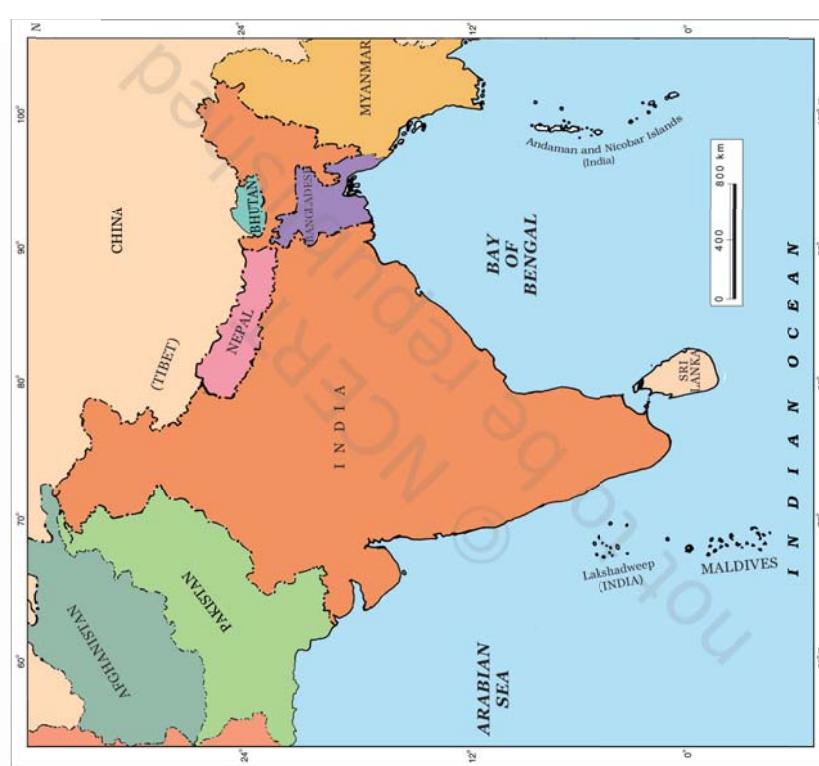


Figure 7.1 : India and its neighbouring countries

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about two hours. As you have learnt earlier, the local time changes by four minutes for every one degree of longitude. The sun rises about two hours earlier in the east (Arunachal Pradesh) than in the west (Gujarat). You have already read earlier, why the local time of longitude of 82°30'E has been taken as the *Indian Standard Time*. This meridian or longitude is also termed as the *Standard Meridian of India*.

INDIA's NEIGHBOURS

There are seven countries that share land boundaries with India. Find out names

INDIA'S POLITICAL MAP

of these countries from the Figure 7.1. How many of these countries do not have access to any ocean or sea? Across the sea to the south, lie our island neighbours—Sri Lanka and Maldives. Sri Lanka is separated from India by the *Palk Strait*.

POLITICAL AND ADMINISTRATIVE DIVISIONS

India is a vast country. For administrative purposes, the country is divided into 29

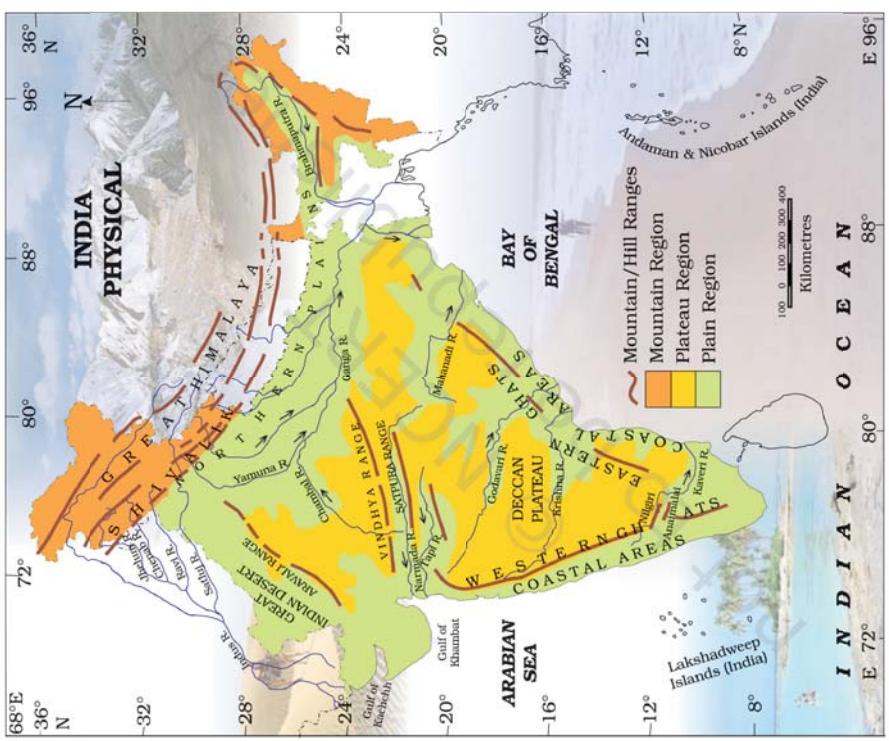


Figure 7.3 : India : Physical Divisions

States and 7 Union Territories (Appendix-I). Telangana became the 29th state of India on 2 June 2014. It was previously a part of Andhra Pradesh. Delhi is the national capital. The states have been formed mainly on the basis of languages. Rajasthan is the *largest state* and Goa is the *smallest state* in terms of area. The states are further divided into districts.

PHYSICAL DIVISIONS

India is marked by a diversity of physical features such as mountains, plateaus, plains, coasts and islands. Standing as sentinels in the north are the lofty snow-capped Himalayas. *Him+alaya* mean 'the abode of snow'. The Himalayan mountains are divided into three main parallel ranges. The northernmost is the **Great Himalaya** or **Himadri**. The world's highest peaks are located in this range. **Middle Himalaya** or **Himachal** lies to the south of Himadri. Many popular hill stations are situated here. Find out the names of five hill stations. The **Shivalik** is the southernmost range.

The **Northern Indian plains** lie to the south of the Himalayas. They are generally level and flat. These are formed by the alluvial deposits laid down by the rivers—the Indus, the Ganga, the Brahmaputra and their *tributaries*. These river plains provide fertile land for cultivation. That is the reason for high concentration of population in these plains.

In the western part of India lies the **Great Indian desert**. It is a dry, hot and sandy stretch of land. It has very little vegetation.

To the south of northern plains lies the **Peninsular plateau**. It is triangular in shape. The relief is highly uneven. This is a region with numerous hill ranges and valleys. Aravali hills, one of the oldest ranges of the world, border it on the north-west side. The **Vindhya** and the **Satpuras** are the important ranges. The rivers **Narmada** and **Tapi** flow through these ranges. These are west-flowing rivers that drain into the Arabian Sea. The **Western Ghats** or **Sahyadris** border the plateau in the west and the **Eastern Ghats** provide the eastern boundary. While the Western Ghats are almost continuous, the Eastern Ghats are broken and uneven (Figure 7.3). The plateau is rich in minerals like coal and iron-ore.

To the West of the Western Ghats and the East of Eastern Ghats lie the **Coastal plains**. The western

Alluvial deposits : These are very fine soils, brought by rivers and deposited in the river basins.

Tributary : A river or stream which contributes its water to a main river by discharging it into either side (Figure 6.1).

Do you know?

The Ganga and the Brahmaputra form the world's largest delta, the Sundarbans delta. The delta is triangular in shape. It is an area of land formed at the mouth of the river (Where rivers enter the sea, that point is called the mouth of the river, Figure 6.1).

Let's Do

Many girls are named after rivers e.g. Yamuna, Mandakini, and Kaveri. Do you know anyone in your locality who is named after a river? Ask your parents and others and make a list of such names. Could you also find other names related to water e.g. Shabnam?



Do you know?

Corals are skeletons of tiny marine animals called **Polyps**. When the living polyps die, their skeletons are left. Other polyps grow on top of the hard skeleton which grows higher and higher, thus forming the coral islands. Figure 7.4 shows Coral islands.



Figure 7.4 : Coral Islands

coastal plains are very narrow. The eastern Coastal plains are much broader. There are a number of east flowing rivers. The rivers **Mahanadi**, **Godavari**, **Krishna** and **Kaveri** drain into the Bay of Bengal. These rivers have formed fertile deltas at their mouth. The Sunderban delta is formed where the Ganga and Brahmaputra flow into the Bay of Bengal.



Aparna Sinha
IX Std.



Vednath Suvain
IV Std.

Danger Waters

Down there in Sumatra started a big quake,
But no one had expected the Tsunami it did make,
Waves big as mountains like an army they charged,
And into the South Asian lands with all might
they barged.
Full with fury, they killed people in thousands,
And destroyed everything from buildings to farmlands.
The waves came and went from Sumatra to
other places,
And left nothing there except empty spaces.
People were left without shelter and food,
Tourists who had come decided they never should.
People lost their loved, near and dear ones,
Survivors snatched and fought for clothes and buns.
Relief to the affected was being sent out,
But now of disease there was a big bout.
People feared going near the sea,
Could it swell up again giving no time to flee?
The fear installed in them may stay by the days,
But in this darkness of sorrow there's still a happy ray!

Two groups of islands also form part of India.
Lakshadweep Islands are located in the Arabian Sea. These are coral islands located off the coast of Kerala.

The **Andaman** and the **Nicobar Islands** lie to the southeast of the Indian mainland in the Bay of Bengal.

Do you know which group of islands were affected by the Tsunami in 2004? Find out through newspaper reports and by speaking to people how in different ways people faced this challenge when Tsunami struck the Indian coast. Tsunami is a huge sea wave generated due to an earthquake on the sea floor.

EXERCISES

1. Answer the following questions briefly.

- Name the major physical divisions of India.
- India shares its land boundaries with seven countries. Name them.
- Which two major rivers fall into the Arabian Sea?
- Name the delta formed by the Ganga and the Brahmaputra.
- How many States and Union Territories are there in India? Which states have a common capital?
- Why do a large number of people live in the Northern plains?
- Why is Lakshadweep known as a coral island?

2. Tick the correct answers.

- The southernmost Himalayas are known as
 - (i) Shiwalks
 - (ii) Himadri
 - (iii) Himachal
- Sahyadrish is also known as
 - (i) Aravali
 - (ii) Western Ghats
 - (iii) Hrimadri
- The Palk Strait lies between the countries
 - (i) Sri Lanka and Maldives
 - (ii) India and Sri Lanka
 - (iii) India and Maldives
- The Indian islands in the Arabian Sea are known as
 - (i) Andaman and Nicobar Islands
 - (ii) Lakshadweep Islands
 - (iii) Maldives

- The oldest mountain range in India is the
 - (i) Aravali hills
 - (ii) Western ghats
 - (iii) Himalayas

3. Fill in the blanks.

- India has an area of about _____.
- The Greater Himalayas are also known as _____.
- The largest state in India in terms of area is _____.
- The river Narmada falls into the _____ sea.
- The latitude that runs almost halfway through India is _____.

Map skills

- On an outline map of India, mark the following.

- Tropic of Cancer
- Standard Meridian of India
- State in which you live
- Andaman Islands and Lakshadweep Islands
- Western Ghats and Eastern Ghats



8

INDIA : CLIMATE, VEGETATION AND WILDLIFE



You read in newspapers daily and watch on T.V. or hear others talking about weather. You must know that **weather** is about *day to day changes* in the atmosphere. It includes changes in temperature, rainfall and sunshine etc. For example, as such it may be hot or cold; sunny or cloudy; windy or calm. You must have noticed that when it is not continuously for several days you don't need any warm clothing. You also like to eat or drink cold things. In contrast there are days together, you feel cold without woolen clothes when it is very windy and chilly, you would like to have something hot to eat.

- Broadly, the major seasons recognised in India are:
- Cold Weather Season (Winter) December to February
 - Hot Weather Season (Summer) March to May
 - Southwest Monsoon Season (Rainy) June to September
 - Season of Retreating Monsoon (Autumn) October and November

COLD WEATHER SEASON OR WINTER

During the winter season, the sun rays do not fall directly in the region. As a result the temperatures are quite low in northern India.

HOT WEATHER SEASON OR SUMMER

In the hot weather season sun rays more or less directly fall in this region. Temperature becomes very high. Hot and dry winds called **loo**, blow during the day.

Let's have fun :

1. People in all parts of our country drink delicious cool drinks called Sharbat made from fruits available in their regions. They are excellent thirst-quenchers and protect our bodies from the ill-effect of the harsh 'loo'. Have you tried 'Sharbat', made from raw mango, bel, lemon, tamarind, kokum, phalsa, watermelon and buttermilk made from curds; for example chhaachh, martha, morti, chash, etc? Many make banana and mango milkshakes too.

2. After a hot summer, the first rains bring much joy. All our languages have melodious songs on 'rains'. They sound happy and bring cheer. Learn two songs on rains and sing them together. Write or collect five poems on rains. Ask your friends, neighbours and family members for names for rains and other seasons in different languages. For instance, Varsha - Hindi Pous - Marathi Barish - Urdu Borsha - Bengali

SOUTH WEST Monsoon SEASON OR RAINY SEASON

This season is marked by the onset and advance of monsoon. The winds blow from Arabian Sea and Bay of Bengal towards the land. They carry moisture with them. When these winds strike the mountain barriers, rainfall occurs.

SEASON OF RETREATING Monsoons OR AUTUMN

Winds move back from the mainland to the Bay of Bengal. This is the season of the retreating monsoons. The southern parts of India, particularly Tamil Nadu and Andhra Pradesh receive rainfall in this season.

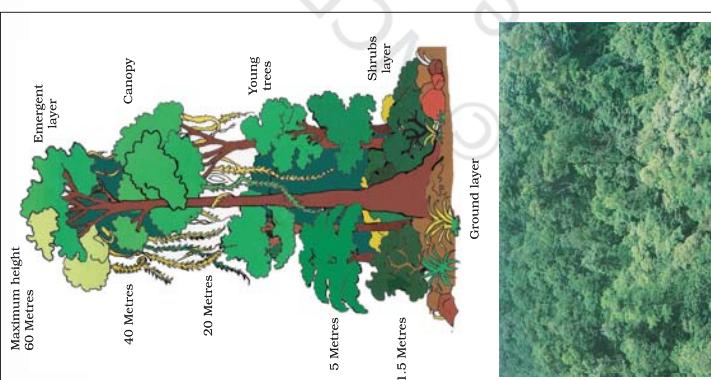
However, the **climate** is about the average weather condition, which have been measured over many years. The climate of India has broadly been described as Monsoon type. **Monsoon** is taken from the Arabic word '**mausim**', which means seasons. Due to India's location in the tropical region, most of the rain is brought by monsoon winds. Agriculture in India is dependent on rains. Good monsoons mean adequate rain and a bountiful crop.

- What would happen if monsoons were weak, or even worse, failed to occur one year? Tick (✓) the correct answer.
- Crops will be affected/not affected
 - The level of the water in a well will come-up/go-down
 - Summer will be longer/shorter



Let's Do

The climate of a place is affected by its **location**, **altitude**, **distance from the sea**, and **relief**. Therefore, we experience regional differences in the climate of India. *Jaisalmer* and *Bikaner* in the desert of Rajasthan are very hot, while *Dross* and *Kargil* in Jammu and Kashmir are freezing cold. *Coastal places* like *Mumbai* and *Kolkata* experience *moderate climate*. They are neither too hot nor too cold. Being on the coast, these places are *very humid*.



NATURAL VEGETATION

We see a variety of plant life in our surroundings. How nice it is to play in a field with green grasses. There are also small plants called bushes and shrubs like cactus and flowering plants etc. Besides there are many tall trees some with many branches and leaves like neem, mango or some which stand with few leaves such as palm. The grasses, shrubs and trees, which grow on their own without interference or help from human beings are called natural vegetation. Do you wonder how these differ from each other. Different types of natural vegetation are dependent on different climatic conditions, among which the amount of rainfall is very important.

Due to varied climatic conditions, India has a wide range of natural vegetation. Vegetation of India can be divided into five types – Tropical evergreen forest, Tropical deciduous forest, Thorny bushes, Mountain vegetation and Mangrove forests.

TROPICAL RAIN FOREST

Tropical Rain Forests occur in the areas which receive heavy rainfall. They are so dense that sunlight doesn't reach the ground. Many species of trees are found in these forests, which shed their leaves at different times of the year.

Figure 8.1 : Tropical Rain Forests



year. Therefore, they always appear green and are called evergreen forest as you may notice in Figure 8.1. Important trees found in these forests are *mahogany*, *ebony* and *rosewood*. Andaman and Nicobar Islands, parts of North-Eastern states and a narrow strip of the Western slope of the Western Ghats are home of these forests.

TROPICAL DECIDUOUS FORESTS

In a large part of our country we have this type of forest. These forests are also called monsoon forests. They are less dense. They *shed* their leaves at a particular time of the year. Important trees of these forests are *sal*, *teak*, *peepal*, *neem* and *shisham*. They are found in Madhya Pradesh, Uttar Pradesh, Bihar, Jharkhand, Chhattisgarh, Odisha, and in parts of Maharashtra.

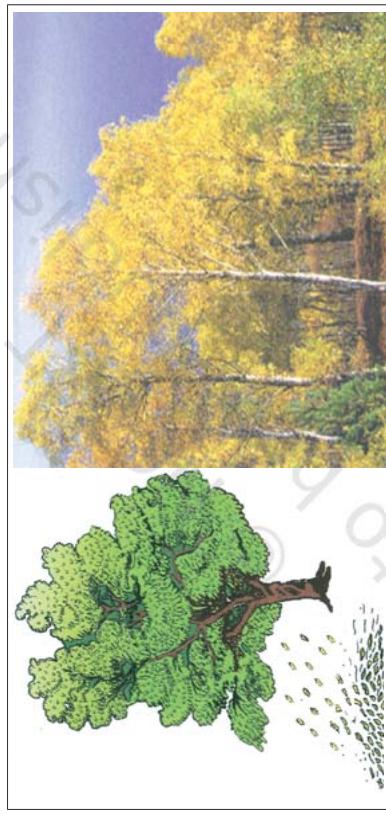


Figure 8.2 : Tropical Deciduous Forests

THORNY BUSHES

This type of vegetation is found in dry areas of the country. The leaves are in the form of spines to reduce the loss of water. *Cactus*, *khair*, *babool*, *keekar* are important and are found in the states of Rajasthan, Punjab, Haryana, Eastern slopes of Western Ghats and Gujarat.

West Bengal and in the Andaman and Nicobar Islands. Sundari is a well-known species of trees in mangrove forests after which Sunderbans have been named.

WHY ARE FORESTS NECESSARY?

Forests are very useful for us. They perform various functions. Plants release oxygen that we breathe and absorb carbon dioxide. The roots of the plants bind the soil; thus, they control soil erosion. Forests provide us with timber for furniture, fuel wood, fodder, medicinal plants and herbs, lac, honey, gum, etc.

Forests are the natural habitat of wild life.

Natural vegetation has been destroyed to a large extent because of the reckless cutting of trees. We should plant more trees and protect the existing ones. We can have special programmes like Van Mahotsav to involve more people in making our earth green.



Figure 8.3 : Thorny Bushes

MOUNTAIN VEGETATION

A wide range of species is found in the mountains according to the variation in height. With increase in height, the temperature falls. At a height between 1500



Figure 8.4 : Mountain Vegetation



Figure 8.4 : Mountain Vegetation

metres and 2500 metres most of the trees are conical in shape. These trees are called coniferous trees. Chir, Pine and Deodar are important trees of these forests.

MANGROVE FORESTS

These forests can survive in saline water. They are found mainly in Sunderbans in

INDIA : CLIMATE, VEGETATION AND WILDLIFE

THE EARTH : OUR HABITAT

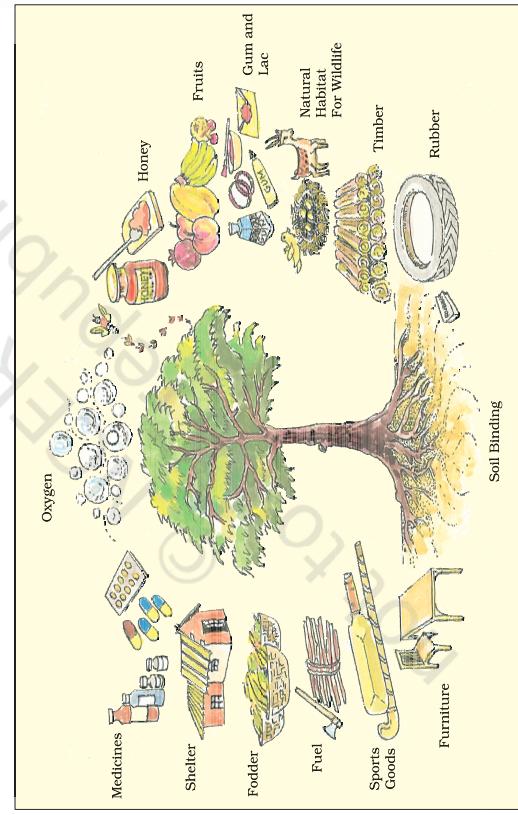


Figure 8.6 : What we get from forests

Leela's parents planted a sapling of "neem" to celebrate her birth. On each birthday, a different sapling was planted. It was watered regularly and protected from severe heat, cold and animals. Children took care not to harm it. When Leela was 20, twenty-one beautiful trees, stood in and around her house. Birds built their nests on them, flowers bloomed, butterflies fluttered around them, children enjoyed their fruits, swung on their branches and played in their shade.

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WILD LIFE

Forests are home to a variety of wild life. There are thousands of species of animals and a large variety of reptiles, amphibians, mammals, birds, insects and worms which dwell in the forest.

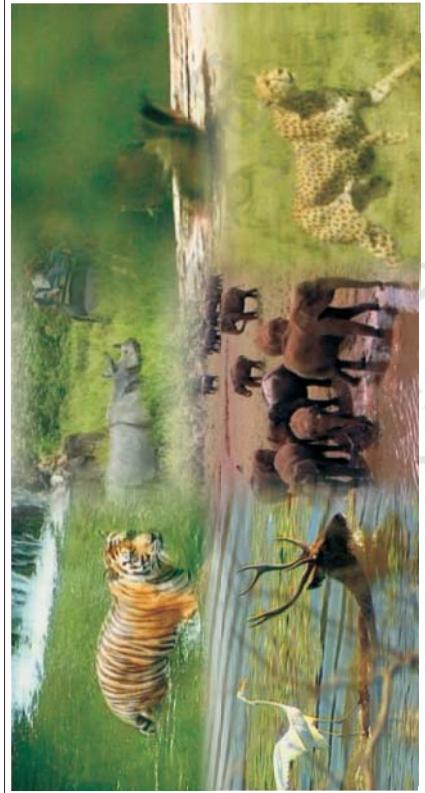


Figure 8.7: Wildlife

The tiger is our **national animal**. It is found in various parts of the country. *Gir* forest in Gujarat is the home of Asiatic lions. Elephants and one-horned rhinoceroses roam in the forests of Assam. Elephants are also found in Kerala and Karnataka. Camels and wild asses are found in the Great Indian desert and the Rann of Kuchchh respectively. Wild goats, snow leopards, bears, etc. are found in the Himalayan region. Besides these, many other animals are found in our country such as monkey, wolf, jackal, nilgai, cheetah, etc.

India is equally rich in bird life. The peacock is our **national bird**. Other common birds are parrots, pigeons, mynah, geese, bulbul and ducks. There are several bird sanctuaries which have been created to give birds their natural habitat. These provide the birds protection from hunters. Can you name five birds that are commonly found in your area?

There are several hundreds of species of snakes found in India. Cobras and kraits are important among them.

Due to cutting of forests and hunting, several species of wildlife of India are declining rapidly. Many species have already become extinct.

In order to protect them many national parks, sanctuaries and biosphere reserves have been set up. The Government has also started *Project Tiger* and *Project Elephant* to protect these animals. Can you name some wildlife sanctuaries of India and locate them on a map?

You can also contribute in conserving wildlife. You can refuse to buy things made from parts of the bodies of animals such as their bones, horns, fur, skins, and feathers. Every year we observe wildlife week in the first week of October, to create awareness of conserving the habitats of the animal kingdom.

Largescale poaching alleged in Simlipal reserve



THE EARTH : OUR HABITAT

- (e) During the south west monsoon period, the moisture laden winds blow from

(i) land to sea

(ii) sea to land

(iii) plateau to plains

3. Fill in the blanks.

- (a) Hot and dry winds known as _____ blow during the day in the summers.

- (b) The states of Andhra Pradesh and Tamil Nadu receive a great amount of rainfall during the season of _____.

(c) _____ forest in Gujarat is the home of _____.

(d) _____ is a well-known species of mangrove forests.

(e) _____ are also called monsoon forests.



FOR FUN

1. Make a list of trees in your neighbourhood and collect pictures of plants, animals and birds and paste them in your copy.
2. Plant a sapling near your home and nurture it and write down the changes you observe for a few months.
3. Does any migratory bird come in your locality? Try to identify that. Be watchful in the winter season.
4. Visit a zoo in your city or visit a nearby forest or sanctuary with your elders. Look carefully at the various types of wildlife there.



Stork – a migratory bird

EXERCISES

1. Answer the following questions briefly.

- Which winds bring rainfall in India? Why is it so important?
- Name the different seasons in India.
- What is natural vegetation?
- Name the different types of vegetation found in India.
- What is the difference between evergreen forest and deciduous forest?
- Why is tropical rainforest also called evergreen forest?

2. Tick the correct answers.

- The world's highest rainfall occurs in
 - (i) Mumbai
 - (ii) Asansol
 - (iii) Mawsynram
- Mangrove forests can thrive in
 - (i) saline water
 - (ii) fresh water
 - (iii) polluted water
- Mahogany and rosewood trees are found in
 - (i) mangrove forests
 - (ii) tropical deciduous forests
 - (iii) tropical evergreen forests
- Wild goats and snow leopards are found in
 - (i) Himalayan region
 - (ii) Peninsular region
 - (iii) Gir forests

State and Union Territories of India

State	Capital	Union Territory	Capital
Andhra Pradesh	Hyderabad	Andaman and Nicobar Islands	Port Blair
Arunachal Pradesh	Itanagar	Chandigarh	Chandigarh
Assam	Dispur	Dadra & Nagar Haveli	Silvassa
Bihar	Patna	Daman & Diu	Daman
Chhattisgarh	Raipur	Lakshadweep	Kavaratti
Goa	Panaji	Puducherry	Puducherry
Gujarat	Gandhi Nagar		
Haryana	Chandigarh	National Capital Territory of Delhi	Delhi
Himachal Pradesh	Shimla		
Jammu & Kashmir	Srinagar		
Jharkhand	Ranchi		
Karnataka	Bengaluru		
Kerala	Tiruvananthapuram		
Madhya Pradesh	Bhopal		
Maharashtra	Mumbai		
Manipur	Imphal		
Meghalaya	Shillong		
Mizoram	Aizawl		
Nagaland	Kohima		
Odisha	Bhubaneswar		
Punjab	Chandigarh		
Rajasthan	Jaipur		
Sikkim	Gangtok		
Tamil Nadu	Chennai		
Telangana	Hyderabad		
Uttarakhand	Dehradun		
Uttar Pradesh	Lucknow		
Tripura	Agartala		
West Bengal	Kolkata		

Some Internet Sources for more information

- www.sci.edu/public.html
- www.si.edu and www.nasm.edu
- http://volcanoes.usgs.gov/
- discoveryschool.com/dysee
- www.futureforests.com/calculators/flightcalculatorshop.asp
- www.nationalgeographic.com/earthpulse
- http://www.cpcb.nic.in