



# Environmental Studies

4

By  
Anusha  
B.Ed, M.A English

# Preface

Sapphire Publication book has been specially designed keeping on mind requirement of the students.

Our purpose in developing this series is to provide path-breaking, interactive, joyful experience for both teachers and students. The topic here have been specially structured keeping in mind the primary objectives of incorporating that covers all the aspects of a student's development.

Each chapter has focused and highlighted a variety of topics based on the world around us; bringing out interest of child. Along with these knowledge based evaluation is carried out with the skill sheet for practice.

## **Special Features :**

1. Course book is supported with for practice sessions based on the chapters provided Activity Bag and Project Bag .
2. Activity Bag and Project Bag are designed to reinforce for entire learning experience with child-friendly illustrations.
3. It links learning of the child through activity approach.

\_ Publisher



# Environmental Studies

Published By



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# Food Process in Plants

Chap.

1



Learning  
Points

After completing this chapter we will be able to know about :

- ◆ The process of making food in plant
- ◆ Energy flow in living things
- ◆ Dependency of plants, animals and human beings on each other
- ◆ Balance in nature
- ◆ The leaf and its parts
- ◆ Some unusual plants

Dear Children! When we feel hungry, we eat food. Animals need to eat food when they feel hungry. All living things need food to stay alive. Plants also need food to stay live. But unlike animals, they do not eat food. Instead, they make their own food.

All types of plants, shrubs, flowers and grasses depend on leaves to make food. Mostly leaves are in green colour due to the presence of chlorophyll. Only green leaves can prepare their own food in the presence of sunlight.

See the pictures of various kinds of leaves. Identify them and write the name of plant from which they belong.



## The Process of Making Food (Photosynthesis)

The green leaves make food for the whole plant by a process called **photosynthesis**. *Photo* means 'light' and *Synthesis* means 'putting together'. Leaves need sunlight, carbon dioxide, water and minerals to prepare food. The leaves take in carbon dioxide from the air through pores called **stomata**.

The roots absorb water and minerals from the soil and stem carries these materials to the leaves. Chlorophyll, the green pigment of the leaf absorbs energy from the sunlight. Carbon dioxide and water are cooked together with solar energy to make food in the leaf.

Water + Carbon dioxide + Chlorophyll + Sunlight → Plant Food

The food prepared by photosynthesis is used for growth of plant. Extra food is changed into a substance called **starch** and it stored in different parts of plant such as fruits, leaves, stems and roots.

We eat that part of a plant which has stored food in it. Apart from food, oxygen and water vapour is also given out by plants during photosynthesis through stomata. Oxygen is then used by animals and human beings for breathing.

### Parts of a Leaf

Take a leaf and observe the lower surface of the leaf we will see a **main vein** running along the centre of the leaf. It is called **midrib**. It is connected to the stem. It has a number of **side veins**. The arrangement of the veins in the leaf is called as **venation**.

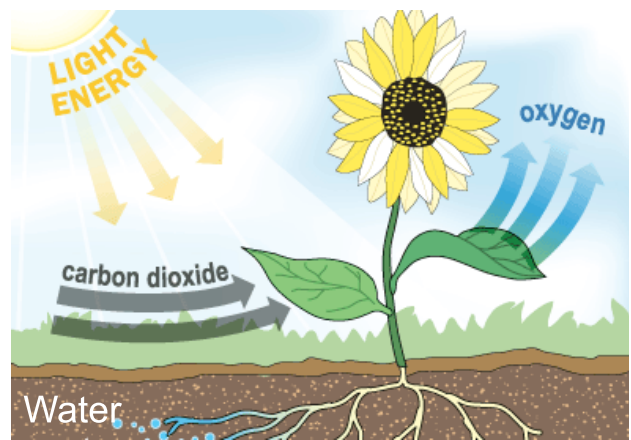
The main vein is formed by a double pipeline of cells one pipeline carries water and minerals to all the cells of the leaf. The other carries prepared food from the green cells to the other parts of the plant.

The leaf has tiny pores between the cells called **stomata**. The leaf takes in carbon dioxide and gives oxygen through these pores. Sometimes the leaf has extra water. This extra water goes out through the stomata as water vapour. Stomata get opened or closed according to the needs of the plant. Plants breathe through these stomata.

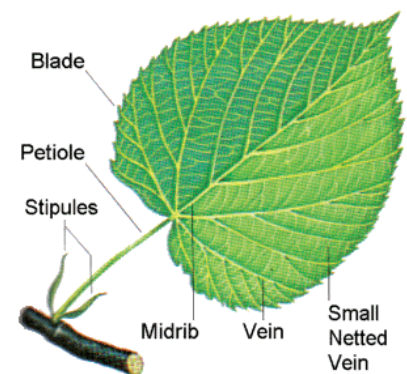
### Tasks of a Leaf

A green leaf performs the following tasks for the plant :

1. Leaf prepares food for the plant.
2. Leaf helps the plant to breathe through stomata.
3. Some leaves also store food prepared by the plant.



Photosynthesis



Parts of a leaf

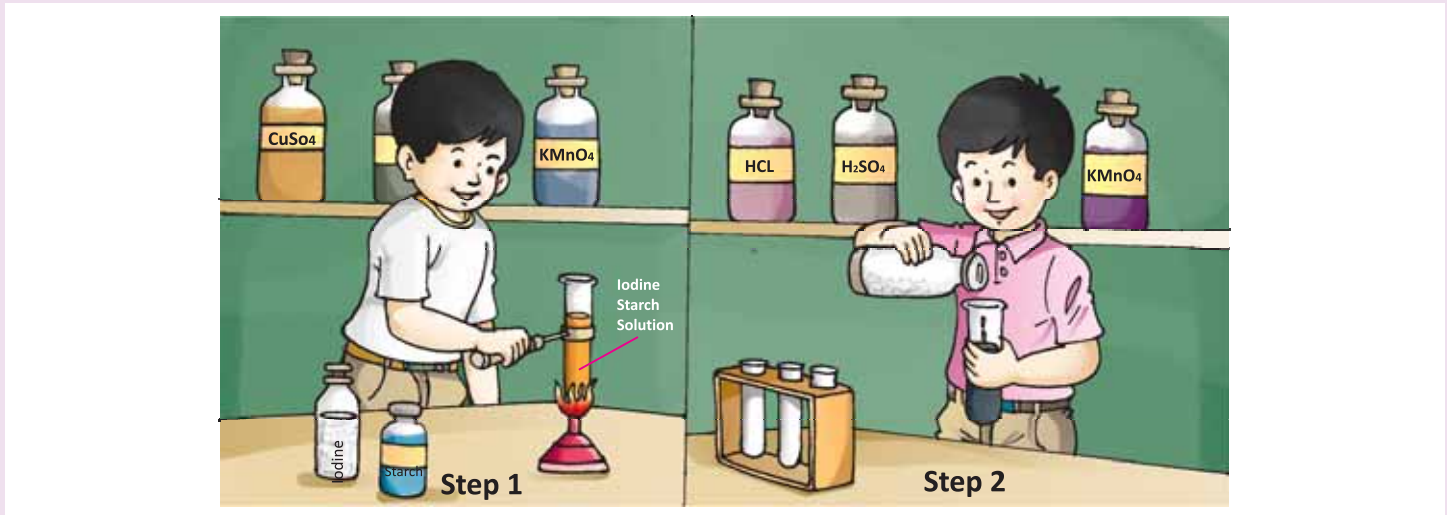


Stomata in Leaf

## Activity-1

### Starch-Iodine Test

**Step 1.** Take 10 to 15ml of water in a test-tube. Make starch solution by dissolving a gram or two starch.



**Step 2.** Boil the contents till a translucent solution is obtained.

**Step 3.** To about 2ml of this starch solution 2 drops of iodine solution.

**Conclusion:** When we add iodine to the bleached leaf, it turns blue-black. That shows starch is present in a green leaf.

## Activity-2

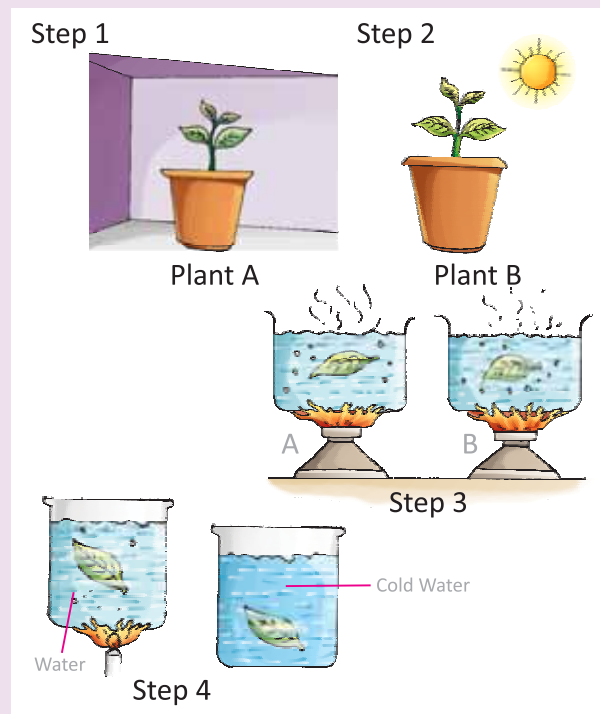
To show that green plants need Sunlight for photosynthesis.

**Step 1.** Take a well watered potted plant (plant-A) and keep it in a dark room. About 2-days water the plant regularly

**Step 2.** Keep the another plant (plant-B) in the sunlight, water the plant regularly too.

**Step 3.** Now, pluck a leaf each from both the plants. Boil each leaf separately first in water and then in alcohol.

**Step 4.** Wash both the leaves separately with cold water. You will find that the leaves get bleached (lose colour). This is done so that you can see the result clearly.



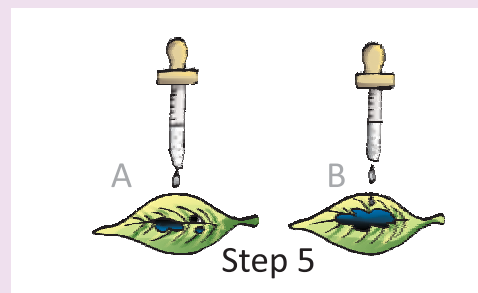
**Step 5.** Put a few drops of iodine solution on each leaf.

### What do We Observe?

We will find that the leaf of plant-A does not turn blue-black. This indicates that starch was not formed that of sunlight. In other words photosynthesis was not carried out.

While the leaf of plant-B turns blue-black showing the presence of starch. This means that plant-B carried out photosynthesis properly.

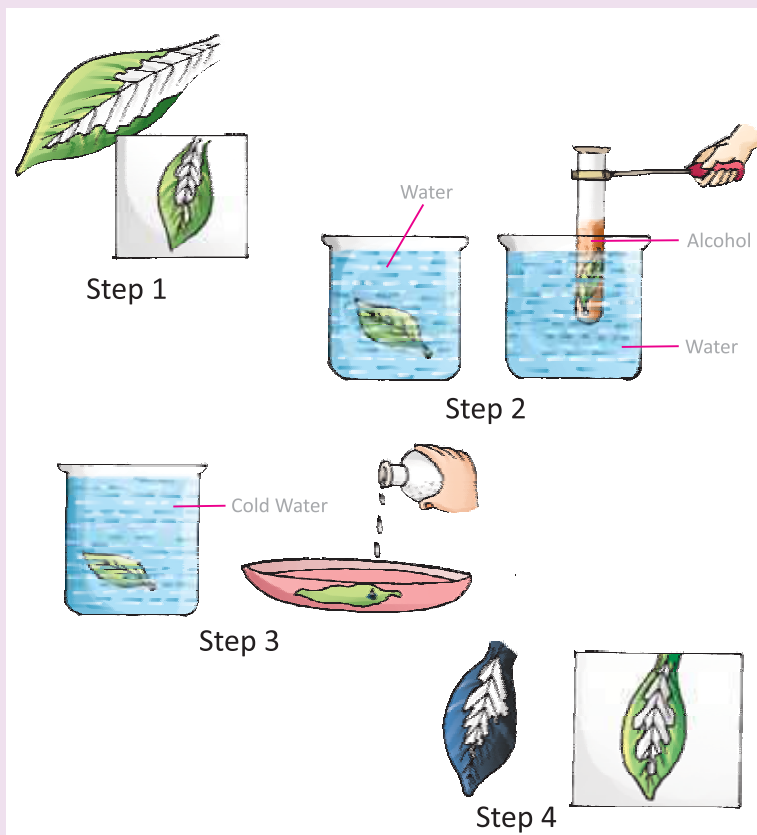
**Conclusion :** Sunlight is needed for photosynthesis. Only the part which gets sunlight is able to make and store food.



## Activity-3

### Chlorophyll is needed for photosynthesis.

- Step 1.** Take a coloured coleus leaf make a sketch of the leaf on a paper, clearly, marking the green parts of the leaf.
- Step 2.** Now bleach the leaf by first boiling it in water and then boiling it in alcohol.
- Step 3.** Now wash the leaf in cold water properly. Add a few drops of iodine.
- Step 4.** Compare the blue-black part of the leaf with your sketch. Find out which parts of the leaf turn blue-black.



### What do you observe ?

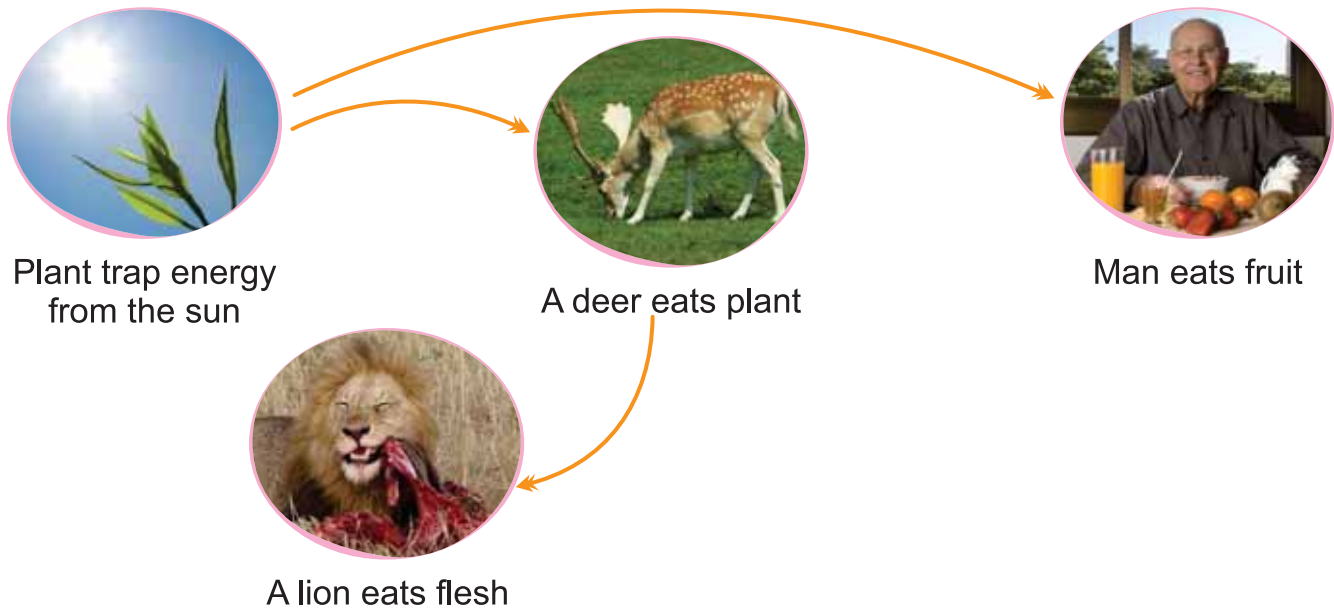
You will observe that the part of the leaf which are green in colour show the presence of starch. Thus, it is confirmed that photosynthesis has taken place only in those green parts. This shows that chlorophyll is needed for photosynthesis.



## Energy Flow in Living Things

Every living things need energy for different activities. For this energy we eat food. It means this energy comes from food. We have learnt that green plants make food trap the sun's energy during photosynthesis. Some food is used by the plant to grow and some food is used to repair a damaged part. The extra food is stored as starch in different parts of plant leaves, stems, roots, fruits and seeds, eaten by animals and humans. Thus, energy is passed on to humans and animals when they eat the plants. This way energy flows from the Sun to the plant and then to living things.

In a simple way we can say that plants help to transfer energy from the sun to animals and human beings.

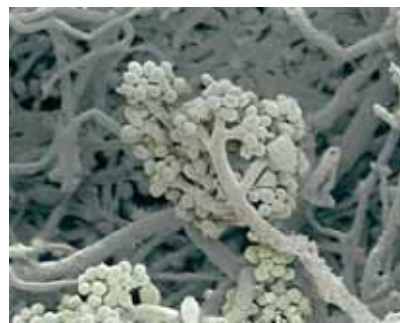


## Flew of Energy Living Things

### Unusual Plants

Some plants do not have leaves like **cactus**. Flew of Energy in Living Things. The leaves of cactus plant are reduced to spines and cannot perform photosynthesis. The food is prepared by the green stem.

Plants like **moulds** and **mushrooms** are non-green plants, because they do not have chlorophyll. They cannot make their own food. They get their food from dead plants and animals and hence grow in damp places.



Mould



Cactus

Some plants like **croton** have chlorophyll but they appear dark red because they have red leaves. This is because of the presence of a red substance that hides the green chlorophyll. Photosynthesis take place in such leaves too, because chlorophyll is present. Only the green part of such leaves perform photosynthesis.



Mushroom



Croton

### Dependency of Plants, Animals and Human Beings on Each other

Plants, animals and human beings show dependency on each other. Animals and human beings need food to eat and oxygen to breathe. Plants give animals and human beings this food and oxygen.

Plants need carbon dioxide to prepare food. Animals and human beings breathe out carbon dioxide. This is used by plants to make food. This way plants help to purify air. So plants and animals and human beings depend on each other.

### Balance in Nature

Nature keeps a balance between all the living things on the Earth. Plants use up some of the carbon dioxide that animals breathe out. Dead animals put some minerals back into soil. Animals eat up plants and prevent them from growing wild. We need to protect both plants and animals.

Many programmes like *Van Mahotsava* promote the planting of trees and make people aware of the harmful consequences of cutting trees. Various wildlife protection programmes have been started to give protection to wild animals, forest reserves and sanctuaries. Remember, if life on the Earth has to go on, a balance in nature must be maintained.

#### POINTS OF VIEW

- All living things need food to grow and stay healthy.
- Plants are only things that make their own food.
- Leaves are green in colour due to a substance called chlorophyll.
- Process in which plants prepared their food is called photosynthesis.
- Plant like moulds and mushrooms are non-green plants because they do not have chlorophyll.
- Plants take carbon dioxide to prepare food, which is release by all living things and all living things take oxygen which is release by plants.



# The Earth and Its Neighbours

Chap. **17**



After completing this chapter we will be able to know about :

- ◆ How the universe may have been formed? ◆ compare planets and stars.
- ◆ Planets and their features ◆ the sequence of planets in the solar system.
- ◆ Various layers of the Earth ◆ distinguish between rotation and revolution.

The size of the universe is difficult to imagine. It is so large that light from very distant objects must travel many billion of years before reaching the Earth.

It is still not proved how the Universe was formed but people have different beliefs about how it all started.

Some scientists believe that it all started with a big explosion. This explosion led to the formation of a huge cloud of gas which kept spinning continuously. The hotter part formed stars, while the cooler parts formed planets and heavenly bodies.

Observe the given picture of solar system. Write the name of eight planets according to situation :



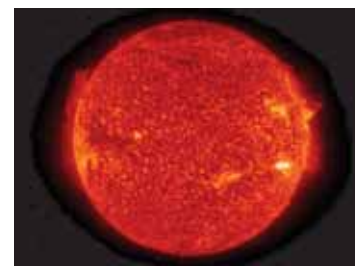
**Solar System**

## The Solar System

The Earth has seven neighbours. Together they make a family of eight planets which travel around the Sun. The Sun and the eight planets belong to the family called the **solar system**.

## The Sun

The Sun is the head of the solar system and is situated in its centre. All planets revolve around the Sun. It is a huge ball of fire and the main source of energy in the solar system. We get heat and light from the Sun.



Sun

## Planets

Planets are heavenly bodies that move around the Sun. They spin on their axis and at the same time revolve around the Sun. They do not have their own light. They only reflect the sunlight. There are eight planets in our solar system.

The first four planets are called **inner planets**. The last four planets are called **gas giants**.

1. **Mercury** : It is the first and smallest planet in the solar system. It is the nearest planet to the Sun. It moves very fast. Its surface is bare and rocky. Its Indian name is *Budh*.



Mercury



Venus

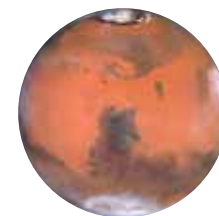
2. **Venus** : It is the second planet from the Sun. It is the brightest planet. It is also called the **evening star**. It is very hot and cream coloured. Its Indian name is *Shukra*.

3. **The Earth** : It is the third planet from the Sun. It is the only planet which supports life. It is also known as the **blue planet** because 70 per cent of its surface is covered with water. It is the only planet on which water exists in liquid form. Its Indian name is *Prithvi*.



Earth

4. **Mars** : It is the fourth planet from the Sun. It is also known as the **red planet**. It has a very thin atmosphere of 95% carbon dioxide. Its Indian name is *Mangal*.

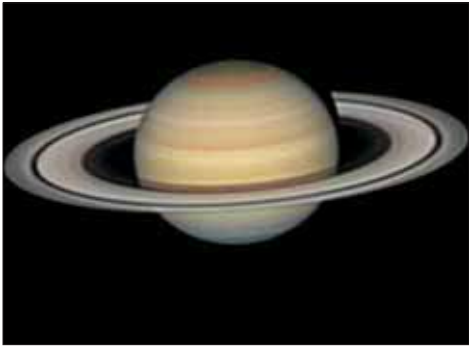


Mars



Jupiter

5. **Jupiter** : It is the fifth planet from the Sun. It is the largest planet in the solar system. It has red spots. Its Indian name is *Brihaspati*.



Saturn

6. **Saturn** : It is the sixth planet from the Sun. It is the second largest planet in the solar system. It is called **Lord** of rings, because it has three major rings around it. These rings are made up of ice, rocks and dust. It's Indian name is **Shani**.

7. **Uranus** : It is the seventh planet from the Sun. It appears like a greenish disc when viewed through telescope because it is covered with a thick layer of beautiful blue green gas. Its Indian name is **Arun**.



Uranus

8. **Neptune** : It is the eighth planet from the Sun. It is the fastest planet from the Sun in our solar system. It appears as a light blue planet through telescope. It has cold winds that blow faster than planes fly. Its Indian name is **Varun**.



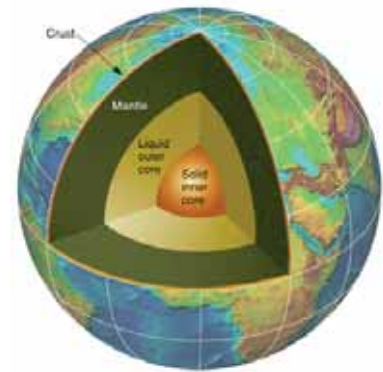
Neptune

On August 24, 2006 the **International Astronomical Union** passed a new definition of planet that excludes **Pluto** and puts it in a new category of “dwarf planet.”

## The Earth

It is a beautiful planet. It has land, water, mountains, valleys, hills and plains. It has flowers and plants, animals and people. Life is only possible on the earth; because of its moderate temperature, presence of oxygen and water.

The Earth is made up of three major layers as follow :



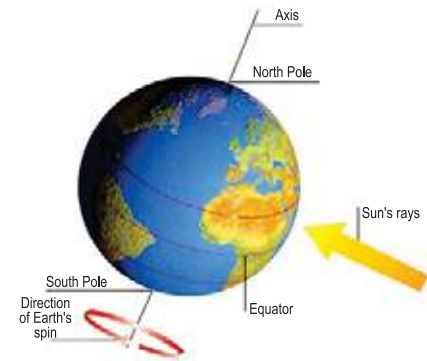
Layers of the Earth

1. **Crust** : The uppermost layer of the Earth is called **crust**. The 3/4th of the Earth's crust is covered with water. It is covered by a layer of atmosphere. It is crust of the Earth which supports all life upon the earth.
2. **Core** : The innermost part of the Earth is called **core**. It is a ball of hot, solid metal and the outer core is of thick liquid metal.
3. **Mantle** : Between the outer crust and the inner core, there are layers of rocks, minerals and metals in solid form. This layer is called the **mantle**.

## Movements of the Earth

The Earth moves on its axis. The axis of the Earth is an imaginary line that runs through the centre of the Earth. The movement of the Earth on its axis is called **rotation**. The time taken by the Earth to complete one rotation is 24 hours. Rotation of the Earth causes day and night.

**Day and Night :** The Earth rotates from west to east on its axis. As the Earth spinning, one of its half part faces the Sun and other half is away from the Sun, so it cannot get sunlight. The part which gets sunlight is cause day here and at the same time the other part which is not getting light, it is night.

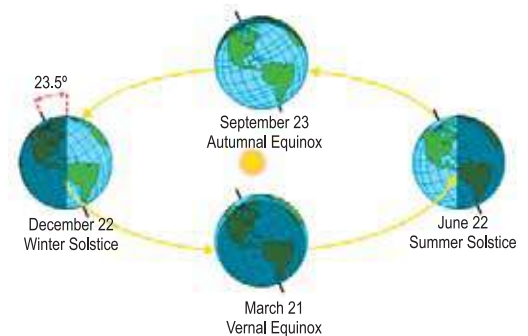


Day and Night

Besides rotating on its axis, the Earth also revolves around the Sun. This movement of the Earth around the Sun is called **revolution**. The Earth takes  $365\frac{1}{4}$  days to complete one revolution. This time is known as **solar year**. Seasons are caused by the revolution of the Earth around the Sun in changing tilt of the Earth's axis.

## Seasons

The season depends on sunlight getting by the Earth. When the Earth gets much strong and direct rays on a small area are cause summer season. But when Earth gets slanting rays falling on a large area are weaker cause winter season. As the Earth continues to revolve, the part that was tilted towards the Sun slowly tilts away and has winter. The other part now has summer. We change our living activities according to the change in the seasons.



Seasons

## Earth and Its Moon

The Earth has only one natural satellite which is the moon. The moon has mountains, valleys, old volcano sites and many bowl-like holes called **craters** on its surface. It is not a luminous body but it shines because it bounces back the light of the Sun.



Surface of the Moon

## The Stars

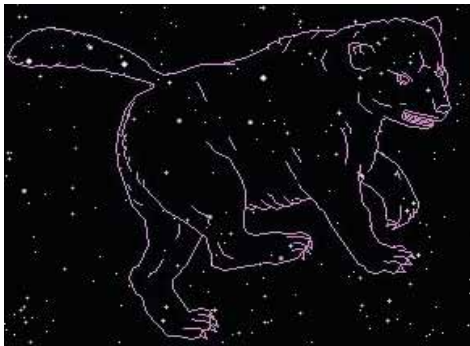
We can see numberless twinkling stars in the sky at a clear night. These appear so small because they are very far from the Earth.

A star is a huge ball of gases. It gives out light and heat. Stars differ greatly in their sizes. Some stars are small while others are very big than sun. Stars shine for millions of years.

We see the stars in groups in the sky. These groups are called **galaxies**. Certain groups of stars seem to form a recognizable patterns in the sky. We call these patterns **constellations**. Some of constellations are **Ursa Major (Great Bear)**, **Leo (Lion)** and **Orion (Hunter)**.



Stars



Ursa Major



Leo

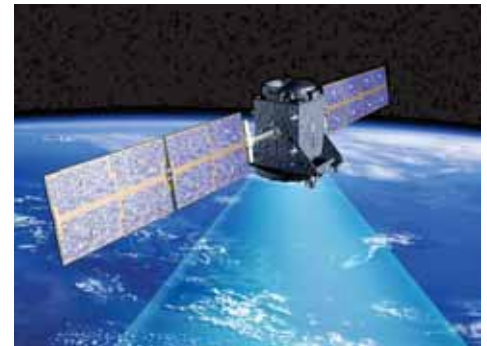


Orion

## Satellites

Satellites are small heavenly bodies that revolve around planets. Most of the planets have satellites. The moon is a **natural satellite** of the Earth. It does not have light of its own. It shines as it reflects the light from the Sun.

**Artificial satellites** are man-made machines sent into space to orbit a planet. They help to study space, forecast weather and in communication. The first artificial satellite to go into space was Sputnik-I. **Aryabhata** was India's first artificial satellite.



Artificial Satellite

## POINTS OF VIEW

- We can see the planets and other heavenly bodies with the help of telescope.
- The sun and the eight planets belong to the family called the solar system.
- All planets revolve around the Sun. They do not have their own light. They only reflect the sunlight.
- Earth is also known as the blue planet because its surface is covered with water.
- Jupiter is the largest planet in the solar system.
- Rotation of the Earth causes day and night.



- Seasons are caused by the revolution of the Earth around the Sun.
- A star is a huge ball of gases. It gives out light and heat.
- The moon is a natural satellite of the Earth.
- Artificial satellites help to study space, forecast weather and in communication.



### A. Tick (T) the correct option :

1. It is a huge ball of gases that has heat and light of its own \_\_\_\_\_.  
 (a) planet  (b) star  (c) moon
2. The movement of the Earth around the Sun is called \_\_\_\_\_ .  
 (a) rotation  (b) revolution  (c) gravitation
3. The outer surface of the Earth is called \_\_\_\_\_ .  
 (a) core  (b) crust  (c) mantle
4. Which of these is the smallest planet in the solar system ?  
 (a) Venus  (b) Mercury  (c) Neptune
5. Satellites are small heavenly bodies that revolve around the \_\_\_\_\_ .  
 (a) Sun  (b) stars  (c) moon

### B. Fill in the blanks :

1. The Sun is the \_\_\_\_\_ of the solar system.
2. \_\_\_\_\_ is the largest planet in the solar system.
3. \_\_\_\_\_ of the Earth causes day and night.
4. \_\_\_\_\_ does not have light of its own.
5. \_\_\_\_\_ was India's first artificial satellite.

### C. Write True or False against each statement :

1. Mercury is the first and smallest planet in the solar system. \_\_\_\_\_
2. Neptune has cold winds, that blow faster than planes fly. \_\_\_\_\_
3. The earth rotates from east to west on its axis. \_\_\_\_\_



4. The seasons depends on sunlight getting by the Earth. \_\_\_\_\_
5. Holi marks the beginning of the spring season. \_\_\_\_\_

D. Match the following :

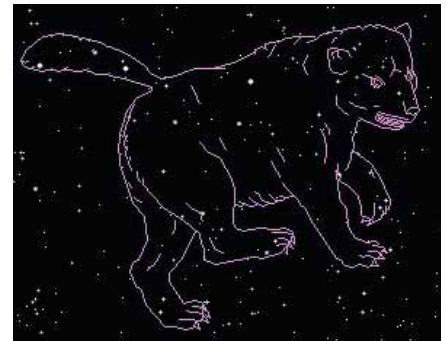
- |            |                           |
|------------|---------------------------|
| 1. Mercury | a. hot and cream coloured |
| 2. Jupiter | b. three rings around it  |
| 3. Venus   | c. cold winds blow faster |
| 4. Saturn  | d. largest planet         |
| 5. Neptune | e. smallest planet        |

E. Answer the following questions :

1. How is the Earth different from the other planets ?
2. How does rotation of the Earth cause day and night ?
3. How is revolution of the Earth responsible for change in seasons ?
4. How was the solar system form ?
5. What are the differences between planets and stars ?
6. Explain the layers of the Earth.



- Observe the pictures of constellations. Identify them and write their name.



\_\_\_\_\_

# The Indian Government

Chap. **18**



After completing this chapter we will be able to know about :

- ◆ The Indian Government.
- ◆ The three main organs of Central Government such as the executive, the legislative and the judiciary.
- ◆ The elections

India is big country. It is divided into states and union territories with Delhi as the National Capital Territory NCR. It become easier to govern small units. To govern such a big country, the government of Indian functions at two levels. The Central and the State. The Central Government and the Union Government deals in matters of National concerns and importance. It maintains the defence forces, runs the railways, posts and telegraph departments control currency and exchange, revenues, coinage and also looks after relations with foreign countries. While State Government deals with local matters like agriculture, forestry, health, education, law and order, jails etc.



Parliament House

**Central Government :** The three main organs of the Central Government are: the executive, the legislative and the judiciary.

The union executive consists of the President, Vice President, Prime Minister and his council of minister.

The legislature is known as the Parliament, it is a law making body which has two houses.



The Electronic Voting Machine

The Lok Sabha or lower house. The Rajya Sabha or the upper house. The members of the Lok Sabha are directly elected by the people through voting. It consists of 545 members. The members are elected for a period of 5 years. An Indian citizen of above 25 years of age can stand for the Lok Sabha elections. All Indians above 18 years of age have the right to vote. The Rajya Sabha is the council of the states. It can be consisted of maximum 150 members of which 238 are elected by the members of the state above 30 years of age eligible to be a Rajya Sabha member.

The elected members of the Lok Sabha, Rajya Sabha and state legislative elect the President. The President is the head of the country. He/She is elected for a period of 5 years. He or she should be citizen of India and not less than 35 years of age. The President live in Rashtrapati Bhavan in New Delhi. The Prime Minister, minister of his council, cabinet minister, secretaries, delegates, embassies and other important officials live in NCR and works from Delhi.



Rashtrapati Bhawan

**Elections :** There is a number of political parties in India. Every party has its own symbols. Parties select their candidates for a particular area.

They campaign through advertisement, posters, speeches, etc. On the election day, the people go to special polling booths and give their votes through a ballot paper or Electronic Voting Machine which contain the name of candidates and symbols of the party. The candidates who get the votes in majority is elected for the parliament. The party which has the maximum numbers of members in the parliament becomes the winner and is called the majority party. Now the President called the majority party to form the Central Government. The leader of it is appointed as a Prime Minister of the country by the President. As the total strength of Lok Sabha is 543 members the President ask the Prime Minister to show the majority of 272 members from his party. Sometimes a single political party may not have this strength, other parties make a single acceptance and join together and form a coalition government.

The Prime Minister select the team of ministers called the council of ministers or the minister of cabinet to work in different fields and sections.

The Governor is the highest authority in the state. The President appoints him/her for the period of 5 years on the advice of the Prime Minister.

He is a link between the central and the State Government. The Governor appoints the leaders of the majority party as the chief minister of the state. Then on the advice of the Chief Minister, the Governor appoints the members of state council

of the ministers. Thus, the procedures of formation of State Government is completed.

The State Government has the power decide at the State level matter concerned with education, agriculture, health, law and order, etc.

**Judiciary :** It is most important orgen of our Government. It gives justice to innocents and punishment to the law breakers and settles disputes between the people. For the purpose, we have law court at different level.

The Supreme Court is the highest court of justice. It is situated in New Delhi. The President appoints the Chief Justice of the Supreme Court. The decision of the Supreme Court is final to all. The High Court is at the state level and the district court at the district level. Any decision taken by the district court can be reviewed by the High Court and further by the Supreme Court.



Supreme Court

Most states have own High Court. In some cases, two states may have a common High Court. Each district has its district court under a district and session judge. The judges of the High Court are also apointed by the President. The High Courts supervise the functioning of the district court.

We should proud to be an Indian and put our best to owe it has India is the largest democracy in the world.

**POINTS OF VIEW**

- The executive legislative and the judiciary are the main organs of Central Government.
- The legislature is known as the parliament.
- All Indians above 18 years of age have the right to vote.
- The President is the head of the country.
- The Governor is the highest authority in the state.
- Supreme Court is the highest court of justice.



**Exercise**



A. Tick (✓) the correct option :

1. Our Indian Government works at \_\_\_\_\_ levels.  
(a) three  (b) two  (c) four
2. The Central Government deals with \_\_\_\_\_ .  
(a) local malters  (b) national concerned  (c) None of them



## Exercise

### A. Tick (✓) the correct option :

1. Photosynthesis takes place in a \_\_\_\_\_ .  
(a) root  (b) leaf  (c) flower
2. Plants prepare food in the form of simple \_\_\_\_\_ .  
(a) sugar  (b) salt  (c) way
3. Which of these traps the sunlight ?  
(a) Stomata  (b) Chlorophyll  (c) Root
4. Which of these is known as the food factory of a plant ?  
(a) Root  (b) Stem  (c) Leaves
5. Which of the following is not a non-green plant ?  
(a) Cactus  (b) Mango  (c) Croton
6. The leaf covered with a thin transparent skin called \_\_\_\_\_ .  
(a) stomata  (b) chlorophyll  (c) midrib
7. Which of the following plant have no leaf ?  
(a) Croton  (b) Mushroom  (c) Cactus

### B. Fill in the blanks :

1. There would be no life on the Earth without \_\_\_\_\_.
2. The leaf takes in \_\_\_\_\_ and gives out \_\_\_\_\_.
3. Leaf helps the plants to breathe through \_\_\_\_\_.
4. Every \_\_\_\_\_ need energy for different activities.
5. Plants need \_\_\_\_\_ to prepare food.
6. The leaf has tiny pores between the \_\_\_\_\_ called stomata.

### C. Write True or False against each statement :

1. Photosynthesis takes place at night. \_\_\_\_\_
2. The green colour of leaves is due to the presence of stomata. \_\_\_\_\_
3. Chlorophyll helps to trap sunlight. \_\_\_\_\_
4. Stomata help plants in breathing. \_\_\_\_\_
5. Croton is a non-green plant. \_\_\_\_\_
6. Food prepared by plant is called sugar. \_\_\_\_\_

3. The Central Government consists mainly \_\_\_\_\_ organs.  
(a) two  (b) three  (c) four
4. The President of India elected for a period of \_\_\_\_\_ .  
(a) 6 years  (b) 3 years  (c) 5 years
5. \_\_\_\_\_ is a highest court of India.  
(a) District Court  (b) High Court  (c) Supreme Court

**B. Fill in the blanks :**

1. An Indian Citizen of above \_\_\_\_\_ years of age can stand for Lok Sabha election.
2. The members of Lok Sabha and Rajya Sabha and \_\_\_\_\_ elect the \_\_\_\_\_ .
3. \_\_\_\_\_ selects team of ministers called the \_\_\_\_\_ .
4. The \_\_\_\_\_ has the highest authority of state.
5. The \_\_\_\_\_ court is the highest court of justice.

**C. Match the following :**

- |                |                   |
|----------------|-------------------|
| 1. Parliament  | (a) Supreme Court |
| 2. Rajya Sabha | (b) 545 members   |
| 3. State Level | (c) Upper house   |
| 4. Highest     | (d) Lower house   |
| 5. Lok Sabha   | (e) High Court    |

**D. Answer the following questions :**

1. Explain the functions of the two levels of the Indian Government.
2. How is the Rajya Sabha formed?
3. How is the President selected?
4. Explain the role of Governor.
5. How is the Central Government formed?
6. Write a short note on :  
(a) Lok Sabha  
(b) Judiciary



- ▶ Conduct elections in your class to select the class monitor.
- ▶ Find out the name of different political parties and their symbols. Now draw or paste pictures of these in your scrap book.

# Test Paper-2

(Based on chapter 11 to 18)

Note : All questions are compulsory :

A. Tick (✓) correct option :

- Nati is the folk dance of \_\_\_\_\_ .  
(a) Himachal Pradesh  (b) Shimla  (c) Kohima
- Which industry is the back bone of all industries ?  
(a) mica  (b) Iron and steal  (c) copper
- Agartala is the capital of \_\_\_\_\_ .  
(a) Asam  (b) Uttar Pradesh  (c) Tripura
- Bihu is the folk dance of \_\_\_\_\_ .  
(a) Uttar Pradesh  (b) Asam  (c) Haryana
- Udaipur is called the \_\_\_\_\_ .  
(a) city of hills  (b) city of lakes  (c) None of these
- Bangluru is the capital of \_\_\_\_\_ .  
(a) Maharashtra  (b) karnataka  (c) Madhya Pradesh
- Which of these is called 'a tourist paradise' ?  
(a) Mumbai  (b) Lakshadweep  (c) Goa
- The outer surface of the Earth is called \_\_\_\_\_ .  
(a) core  (b) crust  (c) mantle
- The central Government mainly consists \_\_\_\_\_ organs.  
(a) two  (b) three  (c) four
- \_\_\_\_\_ is the highest court of India.  
(a) District Court  (b) High Court  (c) Supreme Court

B. Fill in the blanks :

- \_\_\_\_\_ is also called the 'silican valley of India'.
- Seven sister is the group of seven \_\_\_\_\_ .
- \_\_\_\_\_ is called the ship of desert.

4. chhattisgarh is a par of \_\_\_\_\_ .
5. \_\_\_\_\_ is the largest planet in the solar system.

C. Match the following :

- |              |                      |
|--------------|----------------------|
| 1. Mussoorie | (a) Largest Mountain |
| 2. Himalayas | (b) Himachal Pradesh |
| 3. Dehradun  | (c) Hill station     |
| 4. Shimla    | (d) Jammu & Kashmir  |
| 5. Srinagar  | (e) Uttar Pradesh    |

D. Write 'True' or 'False' against each statement :

1. Industries is a place where raw materials are produced \_\_\_\_\_
2. Uttarakhand is the paradise of the Earth. \_\_\_\_\_
3. Durga Puja is celebrated in Punjab. \_\_\_\_\_
4. Chennai is the capital of Tamil Nadu. \_\_\_\_\_
5. Any Indian citizen whose age is 18 years has the right to vote. \_\_\_\_\_

E. Answer the following questions :

1. What is a large scale industry ?
2. Describe the agricultural production of Uttar Pradesh ?
3. What is the life style of Rajasthani people ?
4. Which region is called the 'rice bowl of India' and why ?
5. What are the differences between planets and stars ?
6. How is the President selected ?



D. Give the reason :

1. Sunlight is needed during photosynthesis.
2. Leaves are green in colour.
3. Mushrooms and croton are non-green plants.
4. Leaves are called food factory of plant.

E. Match the following :

- |                |                             |
|----------------|-----------------------------|
| 1. Leaves      | (a) green coloured pigment  |
| 2. Stomata     | (b) non-green plant         |
| 3. Chlorophyll | (c) red substance           |
| 4. Mushroom    | (d) pores between the cells |
| 5. Croton      | (e) food factory            |

F. Answer the following questions :

1. What are the functions performed by a leaf ?
2. How do the plants make their own food ?
3. In what form is extra food stored in plants ?
4. How are plants and animals interdependent ?
5. Why is it essential to maintain a balance between plants and animals in nature?
6. How will you test that starch-iodine is present in leaf or not ?



## ACTIVITY BAG

- Find the presence of starch in the following food items by starch-iodine test.



Write your observation.

---

---

---

---

# Adaptation in Animals

Chap.

2



After completing the chapter we will be able to know about :

- ◆ Classify animals on the bases of place where they live
- ◆ Analyse the need of animals to adjust to their habitat
- ◆ List the different types of adaptations
- ◆ Develop awareness about the need for protecting the natural habitat

Animals have inhabited the Earth for millions of years. Animals are found all over the world. They also adapt themselves to their surroundings. Those animals that are not able to adapt, die out slowly.

Like plants, animals have also developed special structures to survive in their unique surroundings.

Look at the pictures carefully. Identify them and write the name of place where they live :



Adapting to a particular environment is not one or two day process. It takes over hundreds or thousands of years.

Let's learn how animals adapt themselves in different ways to survive.

## Adaptations to Habitat

The home or natural environment of a living being is called its **habitat**. There is a

variety of habitats on the Earth. Animals can therefore be grouped as terrestrial, aquatic, amphibians, aerial and arboreal on the basis of the habitats they live in.

1. **Terrestrial Animals** : Animals like dogs, cats, horses and lions, etc., which live on land are called **terrestrial animals**. They have legs to walk or run on the ground. They have lungs to breathe. Some animals like snakes do not have legs. They have plates or scales which help them to crawl. They have well developed nervous system and sense organs which enable them to sense changes in their surroundings.



Dog



Cat



Lion



Horse

2. **Aquatic Animals** : Aqua means water. So animals that live in water are called **aquatic animals**. Fish, octopus, shrimp, whale, snail, turtle, crabs, etc. are aquatic animals.



Fish



Octopus



Whale



Snail

They have fins or suitable limbs for swimming. Fish and crabs breathe air dissolved in water through gills. Whales and dolphins do not have gills, so they have to come to water surface to breathe. Aquatic birds like ducks and geese have webbed feet which help them to push water back while swimming. Some aquatic animals have a thick layer of fat called blubber under the skin to keep them warm and help them to float.



Duck in Water

3. **Amphibians** : Animals that spend their lives partly in water and partly on land are called **amphibians**. Frogs, toads, crocodiles, salamanders, etc. are amphibians. They breathe through their moist skin when they are in water. On

land, they breathe through lungs. They have limbs that help them in swimming. Some of them have webbed feet and tails to help in swimming.



Frog



Crocodile

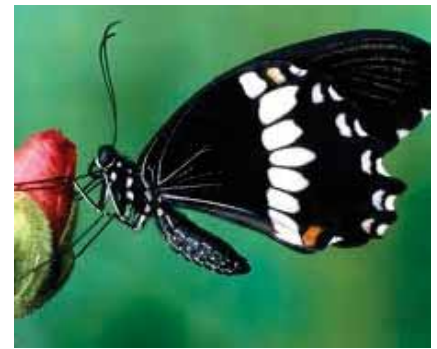
### Knowledge Corner

- ◆ Bats are the only mammals that can fly.

4. **Aerial Animals** : Animals that fly in the air are called **Aerial Animals**. They have wings to fly. They are of light weight due to hollow and light bones and feather. Feathers keep them warm and help during flight.



Bird



Butterfly

Shape of their bodies is boat-like which help them to push through the air. They have flight muscles to fly. Their toes and claws help them to perch on the branches of the trees.

5. **Arboreal Animals** : Animals who spend most of their time on trees are called **arboreal animals**. Monkeys, apes, lizards, squirrel, etc., are arboreal animals. They have strong arms and legs to climb on trees. The spines or plates on their bodies prevent from slipping while climbing. They have claws and broad hip girdles to support their body while climbing. Their fingers and thumb are shaped in such a way that they can hold the branches firmly. Monkeys use their tails to grip branches and hang down for swinging.



Monkey



Squirrel



Lizard

## Adaptations for Food

Animals eat plants and flesh of other animals. So they adapted themselves according to the food they eat. According to the type of food they eat, they can be classified into four major types : herbivores, carnivores, omnivores and parasites.



Cow eating grass



Goat eating grass

1. **Herbivores** : Animals that eat plants grass and leaves are called **herbivores**. Cow, goat, buffalo, sheep, zebra, rabbit, etc., eat plants, so they are herbivorous animals. They are also called **plant-eating animals**.

They have sharp biting cutting teeth to bite leaves and grass. They have long and strong legs to roam long distances in search of food.

These adaptations also help to protect them from being caught and eaten by other animals.

2. **Carnivores** : Animals that hunt small animals to eat the flesh are called **carnivores**. Lion, tiger, fox, vulture, jackal, etc., eat flesh of other animals, so they are carnivorous animals. They are also called **flesh-eating animals**. They have strong muscles, well developed tearing teeth and claws for catching their prey. Flesh - eating birds like vulture, eagles have sharp beaks and claws to catch their prey and to tear their flesh. They are known as **scavengers**.



Lion eating flesh



Tiger eating flesh



Jackal eating flesh

3. **Omnivores** : Animals that eat both plants and animals are called **omnivores**. Bear, crow, cockroach, etc., are some omnivores. They eat both plants and animals.



Bear eating plant



Bear eating flesh



Crow eating flesh



Crow eating bread

## Knowledge Corner

- ◆ Only female mosquito sucks human blood to nourish her eggs.

### Parasites

Animals that live either on or inside the bodies of other animals to obtain food, are called **parasites**. Mosquitoes, leeches, hookworms, bugs are parasites. They have suckers or sucking tubes to suck blood from their host.



Mosquito



Leeche



Bug

### Adaptation for Protection

We have read that animals develop various features that help them to obtain food, live in their habitats and protect themselves from predators.

Let's read about that how animals adapt to protect themselves from their enemy.

- The body colour of some animals like chameleon, zebra, parakeet, polar bear, etc., have the ability to easily blend with their surrounding. Thus, they confuse their enemies and escape from them. For example : stick insect, leaf insect and grasshopper usually resemble very fit with nearby green plant. Garden lizard can change its colour according to its surrounding. This process of changing body colour is called **camouflage**.



Parakeet



Grasshopper



Gardenlizard



Leaf insect

- Some animals like whales, elephants and hippos have huge bodies which protect them from enemies.

- Animals like fish, houseflies and deer move very fast to escape from their enemies. Some animals mainly birds as belican and cranes migrate to places which have suitable climate and plenty of food. Such birds which show migration are called **migratory birds**. In polar region, arctic foxes have brown coats in summer but grow water fur in winter. Their colour merge with their surroundings and it becomes difficult to spot them. Thus they keep themselves safe from their enemies.



Fish



Crane



Polar Bear



Elephant

**POINTS OF VIEW**

- The process of changing to suit the surrounding is called adaptation.
- The home or natural environment of a living being is called its habitat.
- Animals which live on land are called terrestrial animals.
- Animals which live in water are called aquatic animals.
- Animals which live partly in water and partly on land are called amphibians animals.
- Animals that fly in the air are called aerial animals.
- Animals that eat plants are called herbivores.
- Animals that eat the flesh of other animals are called carnivores.
- Animals that eat both plants and animals are called omnivores.
- Parasites animals depend on the hosts for their food.
- Pangolin is covered with overlapping scales.



**Exercise**



A. Tick (✓) the correct option :

- The natural home of an animal is called its \_\_\_\_\_ .  
 (a) water  (b) house  (c) habitat
- Terrestrial animals breathe through \_\_\_\_\_ .  
 (a) lungs  (b) gills  (c) air holes
- Aquatic animals breathe by their \_\_\_\_\_ .  
 (a) lungs  (b) gills  (c) moist skin

4. Which of these is an arboreal animal ?

(a) Bear

(b) Monkey

(c) Peacock

5. It can change its colour according to its surrounding \_\_\_\_\_ .

(a) chameleon

(b) monkey

(c) elephant

**B. Fill in the blanks :**

1. There is a variety of \_\_\_\_\_ on the Earth.

2. Animals like \_\_\_\_\_ and \_\_\_\_\_ live in cold regions.

3. \_\_\_\_\_ breathe through their moist skin.

4. \_\_\_\_\_ and \_\_\_\_\_ are aerial animals.

5. \_\_\_\_\_ are also called plant-eating animals.

**C. Write True or False against each statement :**

1. Adapting takes over hundreds or thousands of years.

---

2. Terrestrial animals walk or run on the ground.

---

3. Some animals have a thick layer of fat called blubber.

---

4. Animals do not adapt themselves according to the food they eat.

---

5. Omnivores are known as scavengers.

---

**D. Match the following :**

1. Blubber

(a) polar bear

2. Habitat

(b) parasites

3. Camouflaging animal

(c) birds

4. Sucking tubes

(d) the natural home of an animal

5. Hollow bones

(e) a thick layer of fat under the skin

**E. Write an example for each of the following :**

1. Animal that lives on land.

---

2. Animal that breathes with gills.

---

3. Animal that live partly in water and partly live on land.

---

4. Animal that lives in air for most of the time.

---

5. Terrestrial animal without legs.

---

**F. Answer the following questions :**

1. What do you mean by adaptation ? How can animals be grouped according to their natural surrounding ?



2. What is the difference between aquatic and amphibian animals? Give one example of each.
3. Why do some animals have skin which matches with the surroundings ?
4. How are arboreal animals adapted to their habitat ?
5. Why do most herbivores have long and strong legs ?
6. What are parasite animals ? Give examples.



## ACTIVITY BAG

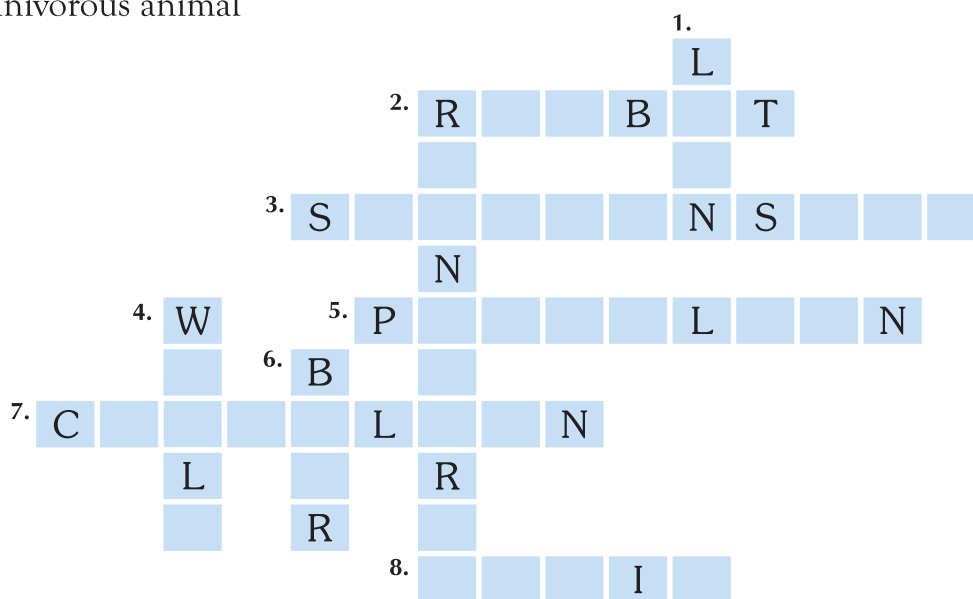
► Read the clues and complete the given crossword puzzle :

Across (→)

2. A herbivorous animal
3. An insect that looks like a tige
5. Has sharp spines on its body
7. Changes colour according to the surroundings
8. Has a shell to protect itself

Down (↓)

1. A carnivorous animal
2. A big animal which has a single horn
4. An aquatic animal that breathes through their lungs
6. An omnivorous animal





After completing this chapter we will be able to know about:

- ◆ The need and importance of food
- ◆ To know about the nutrients of food
- ◆ To classify the five major nutrients of food
- ◆ importance of balanced diet

All living things need food to stay alive. Food helps us to grow and stay healthy. It give us energy to work and play. We eat wheat, rice, vegetables, fruits and pulses. Some of us also eat meat, fish and eggs.

Look at the given pictures and put a cross (X) food items that are not healthy to our body:


















The process by which living beings obtain and utilize food for their growth and development is called nutrition.

### Nutrients in Food

The different types of food give our body all that it needs to perform different activities. These are called nutrients. The five main nutrients or food groups present in the different food are : 1. Carbohydrate, 2. Fat, 3. Protein, 4. Vitamins 5. Minerals. Food also contains roughage and water.

1. **Carbohydrate**: Nutrients which give us energy to do work are known as **carbohydrate**. **Sugar** and **starch** are two types of carbohydrates. Rice, wheat, potato, bread, sweets and chocolates contain starch and sugar. People who do more physical work need more carbohydrate.



Sources of Carbohydrate

2. **Fat**: Nutrient which gives us more energy than carbohydrate and keeps our body warm is known as **fat**. Oil, nuts, butter and meat are rich in fats. Our body stores extra fat for future use. However, we must not have too much food. It is not good for us.



Sources of Fat

### Knowledge Corner

◆ Fat and carbohydrate together are known as energy-giving food.

3. **Protein**: Nutrient which helps us to grow is known as **protein**. This is why children need more



Sources of Protein

protein. Eggs, fish, meat, cheese, peas, pulses and beans are rich in protein. They are also known as **body-building food**.



Child



Boy



Man

4. **Vitamins** : Nutrients which help our body to fight from diseases are known as **vitamins**.

Fruits, vegetables, milk, meat and fish are rich in vitamins. We must regularly have food which contains vitamins. Our body needs vitamins in a very small quantity.



Sources of Vitamins

### Knowledge Corner

◆ Food rich in vitamins and minerals keep us fit and healthy. So they are called **protective food**.

5. **Minerals** : Nutrients which help in the formation of bones, teeth and blood are known as **minerals**. Calcium, potassium, sodium, iodine and iron are some examples of minerals. We get minerals from fruits, vegetables, meat, fish and milk.

There are different kinds of vitamins. They are referred to as vitamins A, B, C, D, E and K. Here is a table that shows vitamins and their sources.



Sources of Minerals

Vitamins	Sources
Vitamin A	Milk, butter, eggs, carrots, spinach
Vitamin B	Milk, peas, spinach, meat, seafood
Vitamin C	Amla, tomatoes, citrus fruits, green leafy vegetables
Vitamin D	Sunlight, milk, butter, vegetables, whole grains
Vitamin E	Vegetables oil, milk, butter, whole grains
Vitamin K	Spinach, cabbage, soyabean oil

**Roughage** : Besides nutrients fibre is also present in our body. This fibre is known as **roughage**. Roughage helps in the proper functioning of the digestive system by moving wastes out of the body.



Sources of Roughage

Brown rice, cucumber, tomato, onion, carrot fruits, etc., are rich in roughage. It adds bulk to the food.

**Water :** Water is very essential for our body to function properly. Three-fourth of our body weight is water. We should drink at least 6-8 glasses of water everyday.



### A Balanced Diet

The food that we eat on a regular basis forms our diet. A diet has the right quantity of protein, fat, carbohydrate, vitamins and mineral salts. We need to take a balanced diet for healthy growth and development of our body.

#### POINTS OF VIEW

- Food give us energy to work and keeps us fit and healthy.
- Nutrients present in our food can be grouped into different categories according to what they do for the body.
- Carbohydrate and fat give us energy and keep us warm, so these are called body-building food.
- Vitamins and minerals keep us fit and healthy.
- Besides nutrients, fibre is also present in our body.
- Water is very essential for our body to function properly.
- The food that we eat on a regular basis forms our diet.



### Exercise



A. Tick (✓) the correct option :

1. Food rich in carbohydrate and fat is known as \_\_\_\_\_ food.
 

(a) energy-giving	<input type="checkbox"/>	(b) body-building	<input type="checkbox"/>	(c) protective	<input type="checkbox"/>
-------------------	--------------------------	-------------------	--------------------------	----------------	--------------------------
2. Bread, wheat and potato are rich in \_\_\_\_\_.
 

(a) fat	<input type="checkbox"/>	(b) carbohydrate	<input type="checkbox"/>	(c) roughage	<input type="checkbox"/>
---------	--------------------------	------------------	--------------------------	--------------	--------------------------
3. Calcium, iron, potassium and iodine are some of the \_\_\_\_\_.
 

(a) proteins	<input type="checkbox"/>	(b) vitamins	<input type="checkbox"/>	(c) minerals	<input type="checkbox"/>
--------------	--------------------------	--------------	--------------------------	--------------	--------------------------
4. Food rich in vitamins and minerals keep us \_\_\_\_\_.
 

(a) fit	<input type="checkbox"/>	(b) healthy	<input type="checkbox"/>	(c) both (a) and (b)	<input type="checkbox"/>
---------	--------------------------	-------------	--------------------------	----------------------	--------------------------

5. It helps in the formation of bones, teeth and blood \_\_\_\_\_ .  
(a) fat  (b) minerals  (c) vitamins

**B. Fill in the blanks :**

1. \_\_\_\_\_ is one of the basic needs of all living beings.
2. Food also contains \_\_\_\_\_ and water.
3. Nutrient which helps us to grow is known as \_\_\_\_\_ .
4. \_\_\_\_\_ is a complete food.
5. \_\_\_\_\_ of our body weight is water.

**C. Write True or False against each statement :**

1. People who do more physical work need more carbohydrates. \_\_\_\_\_
2. Protein is also known as body-building food. \_\_\_\_\_
3. Our body need vitamins in more quantity. \_\_\_\_\_
4. Roughage helps in the proper functioning of the digestive system by moving wastes. \_\_\_\_\_
5. Two-third of our body weight is water. \_\_\_\_\_

**D. Match the following :**

- |                 |                                      |
|-----------------|--------------------------------------|
| 1. Carbohydrate | (a) help us to grow                  |
| 2. Fat          | (b) helps body to fight from disease |
| 3. Protein      | (c) helps in formation of bones      |
| 4. Vitamins     | (d) gives us more energy             |
| 5. Minerals     | (e) give energy to do work           |

**E. Answer the following questions :**

1. Why do we need food ?
2. What are nutrients ?
3. What are vitamins and minerals ?
4. What is a balanced diet ?
5. Why do we need roughage ?

**F. Give the reason :**

1. We need more milk than our elders. Why ?
2. Why do we not eat too much ?
3. Why we should drink eight glasses of water everyday ?



# ACTIVITY BAG

► Complete this table of nutrients:

Nutrients	Sources	Function
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____



After completing this chapter we will be able to know about :

- ◆ Importance and need of clothes
- ◆ Sources of clothes
- ◆ Clothes and profession
- ◆ Care of clothes

Food, shelter and clothes are our basic needs. We have read about food and shelter in previous class. In this chapter we read about our clothes.

Long ago people live in jungles and did not wear clothes. They covered their bodies with leaves, barks of trees and skin of animals.

Later they learnt to weave clothes using threads of cotton and silk. They also used wool from sheep to make warm clothes for winter.

Look at the pictures of clothes. Identify of them and write the name of season in which we wear.



### Why do we need clothes ?

We choose different kinds of clothes to suit our needs. Clothes protect us from cold, heat, rain, dust and insects. Good clothes make us look smart. Shoes and socks protect our feet from germs, dust, cold, heat and cuts. Our clothes protect us from insect bites too.



We wear woollen clothes in winter to protect ourselves from cold. In summer we wear light cotton clothes, which absorb sweat and protect us from the heat of the sun. We wear raincoats when we go out in the rain. They are made of waterproof materials.

### Sources of Clothes

We already know that clothes are made from fibres. Fibres are tiny pieces of threads. Many fibres when twisted together make yarns. These yarn make fibres. Fibre is spun into long, strong thread. These threads are woven into clothes. Clothes can be made from **natural** or **synthetic fibres**.

1. **Natural Fibres** : The fibres obtained from nature are called **natural fibres**. These fibres are obtained from either plants or animals. Cotton, jute, flax and hemp are plant fibres. On the other hand wool, silk and fur are animal fibres.



Natural clothes are healthier to wear as it has tiny spaces which let air pass in and out. So our skin can breathe and the sweat dries easily.

2. **Synthetic Fibres** : These are prepared artificially and are called **man-made fabrics**. They do not occur in nature. Nylon, rayon, lycra and polyester are some examples of synthetic fibres. These are made in factories from crude oil and chemicals. These are stretchable, wrinkle free and dry very quickly. They are non-porous that is, water and other fluids may not pass easily through



them. They do not absorb sweat as they are waterproof and they catch fire easily.

## The Clothes We Wear

In hot weather, we wear clothes made of cotton. White or light-coloured clothes suit the hot weather because they reflect the heat and keep the body cool. In cold weather we wear woollen clothes. Woollen clothes keep our body warm. People living in different regions wear different types of clothes, depending on the climate and the tradition of the region.

**For example :** Srinagar will be different from that of a person living in Chennai. People living in different countries wear different types of clothes. The kind of clothes they wear depends on the type of weather in the region where they live.

For example, people of Jammu and Kashmir wear a thick long dress called **phiran**. The traditional dress of Kerala consists of mundu and neriyathu. Some of these



traditional clothes have become national dresses. The national dress of an Indian woman is the saree and that of a Japanese woman is the Kimono. Indian wear salwar-kameez, lehenga choli and modern dresses like shirt and jeans.

## Clothes and Profession

People wear different clothes according to their jobs or profession.

A **doctor** and **nurse** wear white coat.

A **soldier** wears a uniform made from tough material so that it does not tear easily.

**School children** wear a uniform so that they can be recognized as a student of a particular school.

A **waiter** wears a uniform so that he looks different from the guests.

People working in **factories** wear overalls over their clothes to prevent their clothes from becoming dirty.

## Socks and Shoes

We wear socks and shoes to protect our feet from dust, heat, cold, germs and worms. Walking barefoot can cause cuts. Dirt germs and worms may get into the cut and cause an infection. We should not wear wet or dirty socks or tight shoes.



## Care of Clothes

We should wear clean and well-ironed clothes, to look smart, neat and tidy. So we should take proper care of our clothes to keep them in good condition for a long time.

- Clothes should be washed properly with a good quality detergent or soap.
- Cotton clothes should be washed with soap and water and be squeezed, stretched and dried properly.
- Coloured clothes should be dried in shade and white clothes should be dried in the Sun.
- Woollen and silk clothes are very delicate. They should either be dry-cleaned or washed with a mild detergent.
- Cotton clothes should be ironed before wearing.
- A tear in a cloth should be mended in time. Remember, a stitch in time saves nine!
- A patient's clothes must always be disinfected with an antiseptic solution.

## Storing of Clothes

- Clothes need good care, especially silk and woollen clothes because certain insects feed on silk and wool.
- Before storing and packing clothes should be put out in the sun to rid them of germs.
- Keep naphthalene balls or dried neem leaves between the folds of woollen clothes. These keep insects and rats away. Proper care of clothes makes them last longer.

### POINTS OF VIEW

- We choose different kinds of clothes to suit our needs.
- Natural fibres are obtained from either plants or animals.
- Natural clothes are better to wear.
- Synthetic fibres are prepared artificially and are called man-made fabrics.
- Woollen clothes keep our body warm.
- The national dress of Indian woman is the saree.
- We should wear clean and well ironed clothes.



## Exercise



A. Tick (✓) the correct option :

1. We wear thick and warm clothes in \_\_\_\_\_ .  
(a) winter  (b) summer  (c) rainy season
2. It is a natural fibre which is obtained from plant \_\_\_\_\_ .  
(a) nylon  (b) rayon  (c) linen
3. The national dress of Indian woman is \_\_\_\_\_ .  
(a) saree  (b) salwar-kameez  (c) kimona
4. The national dress of a Japanese woman is \_\_\_\_\_ .  
(a) kimona  (b) saree  (c) salwar-kameez

5. Which of these does not absorb sweat ?

(a) wool



(b) lycra



(c) cotton



**B. Fill in the blanks :**

1. Raincoats are made of \_\_\_\_\_ materials.

2. Fibres are tiny pieces of \_\_\_\_\_ .

3. Natural clothes are \_\_\_\_\_ to wear.

4. \_\_\_\_\_ clothes catch fire easily.

5. We should wear \_\_\_\_\_ and well \_\_\_\_\_ clothes.

**C. Write True or False against each statement :**

1. Clothes are not as important to us as house. \_\_\_\_\_

2. Natural fibres are called man-made fabrics. \_\_\_\_\_

3. A soldier wear a uniform made from tough material. \_\_\_\_\_

4. Woollen and silk clothes are very delicate. \_\_\_\_\_

5. Silk and woollen clothes need good care. \_\_\_\_\_

**D. Match the following :**

1. Natural fibre

(a) Jammu & Kashmir

2. Synthetic fibre

(b) Kerala

3. Phiran

(c) Japan

4. Mundu

(d) Lycra

5. Kimona

(e) Hemp

**E. Give the reason :**

1. Woollen clothes keep our body warm.

2. We wear cotton clothes in summer season.

3. Reyon, nylon and polyester clothes catch fire easily.

**F. Answer the following questions :**

1. Why do we need clothes?

2. What are natural and synthetic fibres ? Give some examples.

3. How should we care our clothes ?

4. How should we store clothes ?



## ACTIVITY BAG

- ▶ Collect small pieces of clothes made of different materials. Paste them in your science notebook. Put suitable labels on them.

# Air, Water and Weather

Chap. **5**



After completing this chapter we will be able to know about :

- ♦ The role of the Sun in changing the weather
- ♦ The formation of land breeze and sea breeze
- ♦ The process of evaporation, condensation and precipitation
- ♦ How water becomes impure or polluted?

We know that air is all around us. Around the earth is a thick layer of air. We cannot see it, but we can feel its presence when it blows. Moving air is called **wind**. Gently moving wind is called **breeze**, while fast moving wind is called **storm**.

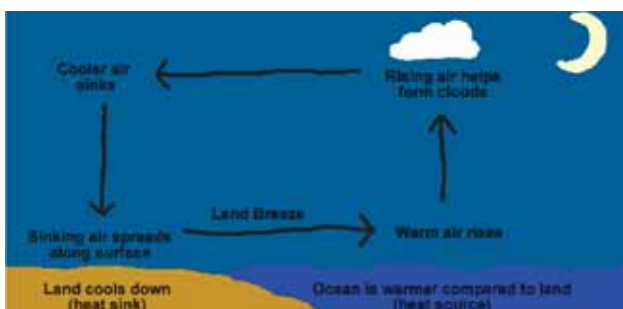
We already learnt that air is a mixture of gases. It has two main gases oxygen and nitrogen. Out of these, nitrogen forms its largest part and oxygen forms the second largest part. About of from these, some amount of other gases like carbon dioxide and water vapour are also found in air. Smoke, dust and germs are the other components of air.

## Hot and Cold Air

The continuous movement of air from hot to cold regions and vice-versa is called **air current**. To learn about air current we need to know how hot and cold air move.

## Activity-1

Light a candle. Bring your hands close to the sides of the flame first then above it. You will find that the air by the sides of the flame is not as hot as the air above. Its proves that hot air rises up.



Land Breeze

In coastal areas, these air currents are responsible for causing sea and land breeze.

## Land Breeze

At night the land cools down faster than the sea. So the air above the sea is hotter than that over the land.

This hot air above the sea rises up. The cold air above the land blows towards the sea to take the place of the rising warm air. This is called **land breeze**.

### Sea Breeze

During the day, the land heats up faster sea water is still cool. Air above the land gets heated and rises. Cool air from above the sea blows towards the land. This is called **sea breeze**.

### How does Breeze Blow ?

The Sun heats up both land and water. Land gets heated up faster and cools down faster than water. During the day, the land heats up and the air above the land becomes hot. Hot air is light and rises up. Cool air from above takes its place and so the breeze blows. This movement caused by hot and cold winds is called **convection current**.

### Water

Water is essential for life. About 3/4 part of the Earth consists water. Water is not found only in rivers, seas and oceans, but it is also found underground. Rain is the main source of water. Most of our body weight is made up of water. Water is a good solvent. It changes its form on heating and cooling.

### Evaporation

The Sun slowly heats the water on the surface of the earth to change it into water vapour.

The process of change of water into water vapour due to heating is called **evaporation**. In nature, evaporation takes place all the time. Sometimes it is slow, sometimes it is fast. Evaporation of water takes place at a faster rate when there is a strong wind and the air is dry.

The amount of water vapour in the air is called **humidity**. When the humidity is more we feel uncomfortable. We keep sweating.

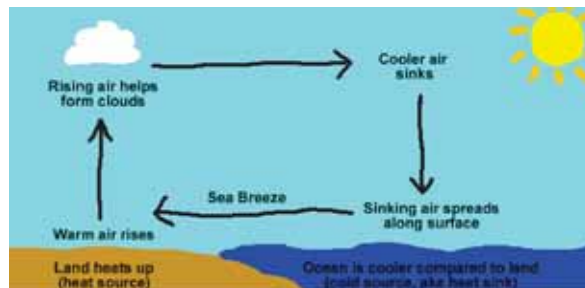
### Condensation

When water vapour cools down it changes into drops of water. This is called **condensation**.

### Impurities in Water

There are two types of impurities in water : soluble impurities and insoluble impurities.

1. **Soluble Impurities** : Impurities like salt and some minerals that can dissolve in water are called **soluble impurities**.
2. **Insoluble Impurities** : Impurities like mud, twigs, stones, etc; that do not dissolve in water are called **insoluble impurities**.



Sea Breeze



## Purification of Water

Insoluble impurities can be removed in the following ways :

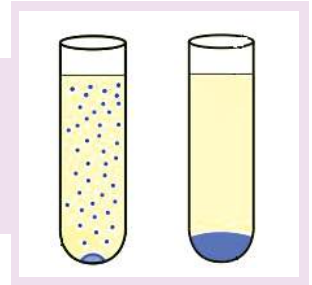
1. **Sedimentation** : Impurities that are heavier than water will settle at the bottom of the water leaving it clear. This is called **sedimentation**.



Sedimentation

## Activity-2

Stir a handful of soil into a glass container. Allow the solid particles to settle down at the bottom as sediments. This is sedimentation.

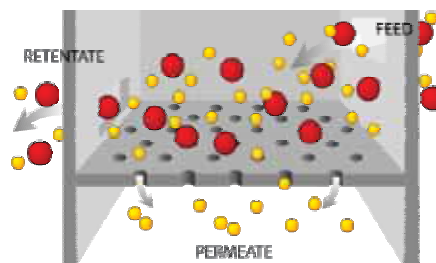


Decantation

2. **Decantation** : After the sedimentation, water remains on upper layers in clear than in lower layers. Now slowly pour this clear water into another vessel. This is called **decantation**.

3. **Filtration** : The separation of insoluble impurities with the help of filter

paper or other similar objects is called **filtration**. The insoluble material is left above the filter paper, while the liquid is transmitted through and collected in the other vessel. Now this work is done by filter machine at home.



Filtration



Filtration Machine

## Drinking Water

Pure and clean water is necessary for healthy living. Impure water may contain many disease germs like bacteria, protozoa and viruses. These produce serious diseases in man and animals. So we should follow some ways to get rid of these disease germs from water.

- ❑ Chemicals like chlorine are used to kill germs at waterworks of a city.
- ❑ Addition of potassium permanganate crystals to water is a popular way of cleaning water since long-long ago.
- ❑ Bleaching powder also kills germs in water.
- ❑ The safest method of purifying water is to boil it as boiling destroys germs.



Pure Water

- We can also use a water filter machine for cleaning water.
- It is important to store and handle water properly. It must be kept in covered vessels which are cleaned regularly.

### Knowledge Corner

- ◆ Water is precious natural resource. We should not waste water.

### Underground Water

Rain is the main source of water. Most of rainwater falls on the ground and seeps through the layers of soil to form **underground water**. We draw out this underground water from tubewells and wells. Places that are dry have less underground water. The level of underground water in an area is called the **water table**.

### Weather

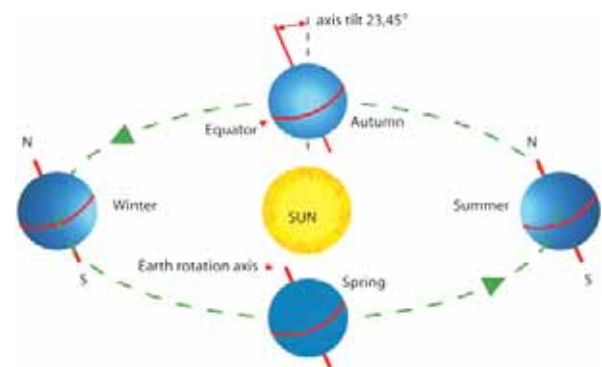
Weather is the condition of the atmosphere surrounding us at a particular time, in terms of temperature, atmospheric pressure, wind and moisture. It keeps on changing everyday. The weather can be hot, cold, windy, dry or humid.

But why does the weather keep on changing ? Who is responsible for this ? The answer to these questions is the sun. The sun is responsible for causing changes in the weather. Let us read on further to see how.

#### Sun's role in causing changes in weather

You must have noticed that some days are hot, some are cold, while some are cloudy or rainy. The sun causes all these weather changes. It affects the movement of the air. It also changes the form of water making the day cloudy, rainy or sunny.

We know that **rotation** of the earth causes day and night and **revolution** of the earth around the sun causes seasons. The part of the earth that is closer to the sun has warmer and longer days. So, it is **summer** in this part of the world. The part of the earth away from the sun has cooler and shorter days. So, it is winter in this part of the world. In countries like India, **winter**, **summer** and **monsoon** are the three main seasons. However, even during one season, the weather changes from day to day and sometimes from hour to hour.



Rotation of Earth

### Sun's role in blowing of winds

The Sun also plays an important role in blowing of winds. The heat of the Sun heats up the air. The heated air becomes lighter and rises. To fill its space, cool air which is heavier comes in. This movement continues and causes winds.



## Sun's Role in Causing The States of Water

The heat of the Sun changes water into water vapour. This water vapour rises and forms clouds. When clouds become too heavy, they fall or rain and atmosphere becomes cool. Water vapour falls as snow when the atmosphere is extreme cold.



### POINTS OF VIEW

- Moving air is called wind. Gently moving wind is called breeze, while fast moving wind is called storm.
- In coastal areas, air currents are responsible for causing sea and land breeze.
- All living things need air to breathe. Without air, we cannot survive.
- About 3/4 of Earth consists water. It is essential for life.
- Water changes its form on heating and cooling.
- The Sun slowly heats the water on the surface of the Earth to change it into water vapour.
- Soluble impurities and insoluble impurities are the two types of impurities that are found in water.
- Pure and clean water is necessary for healthy living. Chemicals like chlorine are used to kill germs at waterworks of a city.



## Exercise



A. Tick (✓) the correct option :

1. Air flowing towards the land from the sea is called \_\_\_\_\_ breeze.  
(a) sea  (b) land  (c) cyclone
2. Air flowing towards the sea from the land is called \_\_\_\_\_ breeze.  
(a) sea  (b) land  (c) cyclone
3. It is not a way of purifying water \_\_\_\_\_ .  
(a) cooling  (b) filtration  (c) sedimentation
4. It is responsible for changes in weather and seasons \_\_\_\_\_ .  
(a) Sun  (b) Earth  (c) Air

5. It is not used to kill germs in water \_\_\_\_\_ .

(a) bleaching powder



(b) chlorine



(c) boiling



**B. Fill in the blanks :**

1. Air has two main gases \_\_\_\_\_ and \_\_\_\_\_ .

2. \_\_\_\_\_ changes its form on heating and cooling.

3. The amount of water vapour in the air is called \_\_\_\_\_ .

4. The weather can be \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ or humid.

5. The heat of the Sun changes \_\_\_\_\_ into \_\_\_\_\_ .

**C. Write True or False against each statement :**

1. Hot air does not rise up. \_\_\_\_\_

2. Cool air is light and rises up. \_\_\_\_\_

3. There will be no rain without air. \_\_\_\_\_

4. Most of our body weight is made up of water. \_\_\_\_\_

5. When water vapour cools down it changes into drops of water. \_\_\_\_\_

**D. Match the following :**

1. Forms of water

(a) mud

2. Soluble impurities

(b) air blows towards the sea

3. Insoluble impurities

(c) air blows towards the land

4. Land breeze

(d) salt

5. Sea breeze

(e) ice, water, water vapour

**E. Give the reason :**

1. In winter, early in the morning we can see drops of water on plants or grasses, why ?

2. We cannot use chemicals to kill germs in water. Then how will you kill the germs in water ?

**F. Answer the following questions :**

1. How is air important to us ?

2. What are the different ways of purifying water ?

3. What are sea and land breeze ?

4. Explain how the sun causes changes in weather and seasons ?

5. What are evaporation and condensation ?



## ACTIVITY BAG

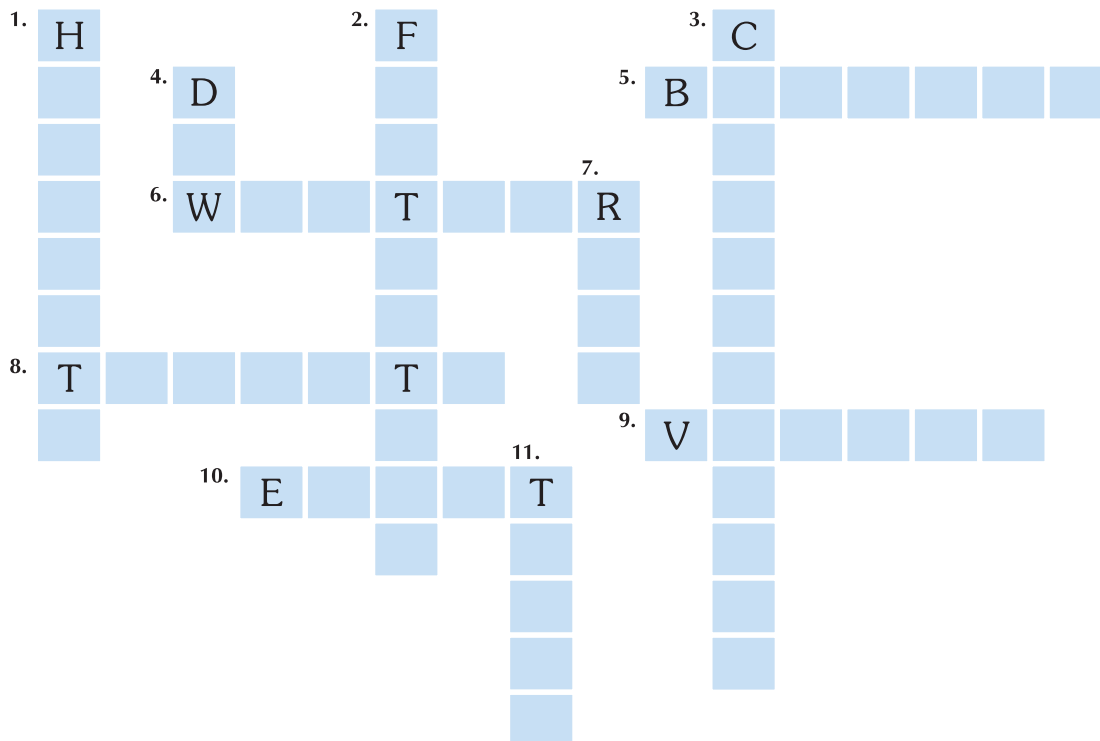
- Solve the crossword puzzle read with the given clues :

Across (→)

5. Water is safe for drinking by
6. The heat of the Sun causes changes in the
8. When the body needs water we feel \_\_\_\_\_.
9. Gaseous form of water
10. Frozen water-vapour

Down (↓)

1. Amount of water vapour in the air
2. Insoluble particles can be removed by
3. Changing water vapour into liquid
4. On a cold morning we can see this on the grass
7. \_\_\_\_\_ is the main source of water
11. Water is found in \_\_\_\_\_ forms



# Physical Features of India

Chap.

6



After completing this chapter we will be able to know about :

- ◆ The physical features of India
- ◆ The political division of India
- ◆ States and their capitals of India
- ◆ Climate of India

India is a very beautiful country. It has unique physical features and cultural diversities. India is located in the central part of South Asia. It is the seventh largest country in area. After China it is the second most populous country in the world.



The varied land features of its surface like hills, mountains, valleys, plains add to its beauty. Since India is a very big country it has been divided into 29 states, 7 union territories, and 'Delhi' being the National Capital Territory of India.



India's Physical Features

The southern part of India is a peninsula it is surrounded by water on three sides. It has the Bay of Bengal in the east, the Arabian Sea in the west and the Indian Ocean in the south.

The Great Himalayan ranges are situated in the north. Kanyakumari is the southern most part of the mainland of India and the southern most tip of India is the Pygmalion Point or Indira Point is in great Nicobar Islands. The Andaman and Nicobar Islands in the Bay of Bengal and Lakshadweep Islands in the Arabian Sea are Indian Islands.

## Our Neighbours

The Himalayan mountain ranges runs from North-west to North-east forming a boundary with many countries such as Nepal, Bhutan and China are in the North, Pakistan and Afghanistan to the north-west, Bangladesh and Myanmar to the east ; Sri Lanka and Maldives are in the south. As such the Himalayas create a distinctive landmass known as the Indian-sub continent India with its neighbouring countries not only share its physical features, but also the climate, vegetation cultural and economic traits.

## Physical Features of India

India is a very big country and its land surfaces vary from place-to-place. It has high snow-covered mountains, valleys, rivers, plains, plateaus, waterfalls, sea-coasts and islands. On the basis of these land features, India can be divided into following physical divisions :

1. The Northern Mountains
2. The Northern Plains
3. The Great Indian Desert
4. The Southern Plateau
5. The Coastal Plains and Islands



Physical Features of India

## Political Division of India

India's varied land features adds to its beauty, but it is very difficult to govern such a large country. In order to do so India has been divided into smaller political divisions called the **states** and **union territories**. There are 29 states and 7 union territories, including the National Central Territory of Delhi. These are further divided into districts and smaller administrative units for the purpose of easy governance.

### States and Urban Territories and their Capital

#### States and their Capitals

##### States

1. Andhra Pradesh
2. Arunachal Pradesh
3. Assam
4. Bihar
5. Chhattisgarh
6. Goa
7. Gujarat
8. Haryana
9. Himachal Pradesh
10. Jammu & Kashmir
11. Jharkhand
12. Karnataka
13. Kerala
14. Madhya Pradesh
15. Maharashtra
16. Manipur
17. Meghalaya
18. Mizoram
19. Nagaland
20. Odisha
21. Punjab
22. Rajasthan
23. Sikkim

##### Capitals

- Hyderabad
- Itanagar
- Dispur
- Patna
- Raipur
- Panaji
- Gandhi Nagar
- Chandigar
- Shimla
- Srinagar
- Ranchi
- Bengaluru
- Thiruvanan the puram
- Bhopal
- Mumbai
- Imphal
- Shillong
- Aizawl
- Kohima
- Bhubaneshwar
- Chandigarh
- Jaipur
- Gangtok

24. Tamil Nadu	Chennai
25. Telan gana	Heyderabad
26. Tripura	Agartala
27. Uttar Pradesh	Lucknow
28. Uttarakhand	Dehradun
29. West Bengal	Kolkata

### Union Territories and their Capitals

1. Andaman and Nicobar Islands	Part Blair
2. Chandigarh	Chandigarh
3. Dadra and Nagar Haweli	Silvasa
4. Daman and Diu	Daman
5. Lakshadweep	Kavarati
6. Puducherry (Pandichery)	Puducherry
7. National capital history Territory of Delhi	New Delhi

National capital territory of Delhi is the Central Government, being the largest metro politan city in terms of area. Goa is the smallest state, whereas Rajasthan is the largest state in area. The states of Arunachal Pradesh, Asom, Meghalaya, Manipur, Mizoram, Nagaland and Tripura in the north-east are also called the “seven sisters of India.”

### Climate

The regular pattern of weather conditions of a particular place is called its climate. India enjoys a suitable tropical monsoon and pleasant climate. India, even though a small country in terms of area, holds a large population. The population strength of a place depends to a great extent on the climate condition. The dress, lifestyle, etc., of the people depend on the climate of the place where they live. We generally experience three types of climatic conditions in India the cold season or winter, the hot season or summer and monsoon or the rainy season.

### Unity In Diversity

The variety of physical features reflects itself in a great diversity in living styles of men and women. Together these islands together make India a strong nation. The different life styles, languages, dresses, food habits, cultures, yet at heart are all Indian remain one.

### POINTS OF VIEW

- India is located in the central part of South-Asia.
- India is divided into 29 states and 7 territories.
- Kanyakumari is the Southern most of the mainland of India.
- The Himalayas mountain ranges runs from the Northern west to North-East forming a boundary with many countries.
- Delhi is the National Capital Territory of India.



## Exercise



### A. Tick (✓) the correct option :

- India is located in the central part of \_\_\_\_\_.  
(a) South America  (b) South Asia  (c) South Australia
- How many states are there in India ?  
(a) 29  (b) 26  (c) 27
- Which is the capital territory of India ?  
(a) Goa  (b) Delhi  (c) Lucknow
- Which is the largest state in area?  
(a) Tamil Nadu  (b) Uttar Pradesh  (c) Rajasthan

### B. Fill in the blanks :

- India is the \_\_\_\_\_ largest country in area in the world.
- The Southern part of India is a \_\_\_\_\_ .
- \_\_\_\_\_ is the National Capital territory of India.
- The Great \_\_\_\_\_ ranges are situated in the north.
- Pygmalian point is called \_\_\_\_\_ point.

### C. Write True or False against each statement :

- The Great Himalayan ranges are situated in the north. \_\_\_\_\_
- The Arabian Sea in the east and the Indian Ocean in the west. \_\_\_\_\_
- Sri Lanka and Maldives are in the south. \_\_\_\_\_
- Kanyakuari is the Southern most of the mainland of India. \_\_\_\_\_
- India is located in the central part of south-Asia. \_\_\_\_\_

### D. Match the following :

- |                   |                             |
|-------------------|-----------------------------|
| 1. Andhra Pradesh | (i) Kohima                  |
| 2. Goa            | (ii) Chandigarh             |
| 3. Kerala         | (iii) Hyderabad             |
| 4. Gujarat        | (iv) Gangtok                |
| 5. Manipur        | (v) Lucknow                 |
| 6. Nagaland       | (vi) Agartala               |
| 7. Punjab         | (vii) Gandhi Nagar          |
| 8. Sikkim         | (viii) Thirubanan the puram |
| 9. Tripura        | (ix) Imphal                 |
| 10. Uttar Pradesh | (x) Kohima                  |



E. Answer the following questions :

1. Where is India situated?
2. Name the neighbouring countries of India.
3. What kind of climate does India have?
4. Name the southern most part of India?
5. How many states and union territories does India have?



## ACTIVITY BAG

- ▶ On the outline map of India, mark all the neighbouring countries and the water bodies that surrounded.



# Soils and Crops of India

Chap.

7

## Learning Points

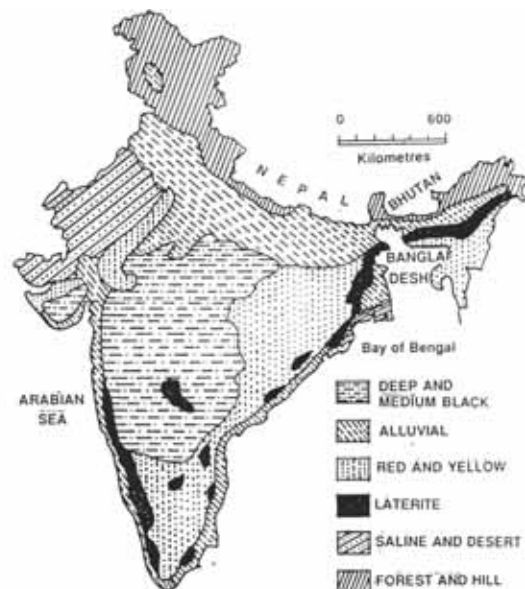
After completing this chapter we will be able to know about :

- ◆ The importance of soil and crops
- ◆ The soil conservation
- ◆ The different kinds of soils

Nature has provided our Earth endless things. These things like air, water, forests, soil, etc., fulfill our daily requirements and are called natural resources. Soil is one of the most important natural resource, that produce cereals, fruits and vegetables. Thus, we can say that all living beings directly or indirectly depend on soil for food.



**Soil** is the uppermost layer of the Earth's crust. It is formed by the breaking up of the rocks by the action of natural agents like rain, wind, heat, etc., and composed of many substances including many minerals, remains of plants and animals, water and air, called Its parent material sets the health or type of the soil.



Different types of soil are found in different regions of the Earth and the nature of soil depends on the type of rock from which it is formed.

### Types of Soils

In India, six types of soil are found. A variety of crops can be grown in these different types of soil.



Jowar

Wheat

1. **Alluvial Soil** : This soil is formed by deposit of fine silt and sand brought by rivers flowing down the Himalaya. This soil is very fertile and is found in the northern plains and the coastal plains. Almost all the crops like wheat, rice, maize, cotton, sugarcane and oilseeds etc., are grown in this soil.



Terrace Farming

2. **Mountain Soil** : This soil is formed of clay, sandstones and pebbles and has a large content of humus. It is mainly found in the mountains of Himalayan region. It is good for growing apples, apricot, rice etc., By cutting steps into the slope of hills crops like wheat, maize, rice, potato are also grown. This is called terrace farming.

3. **Black Soil** : This soil is formed of volcanic lava. It is a dark or black in colour and has a quality of retaining moisture even during the dry season. It is mainly found in the Deccan Plateau region. It is clayey in nature It is very good for growing cotton, sugarcane, onion, wheat and some fruits.



Cotton Plant

4. **Red Soil** : This soil is formed from rocks like granite and rocks having presence of iron oxide. Thus its color is

reddish. This is hot so fertile and found in hot and dry parts of the southern and eastern parts of the Indian peninsula. It can be made fertile by adding fertilizers and manure. Crops



Igneous Rock



Red Soil

like jowar, bajra, groundnuts tobacco can be grown in this soil.

5. **Laterite Soil** : This soil is found in high altitude areas and regions where it rains heavily. It is mainly found in the hilly areas of the western ghats, Chhotanagpur plateau and some parts of north-eastern states. Though it is less fertile, tea, coffee, rubber and coconut grow in this soil and also used to make bricks.



Tea Field



Bricks

6. **Desert Soil** : This soil is sandy and mainly found in the Thar Desert of Rajasthan and some parts of Gujarat, It cannot hold water also, it is not fertile but crops can be grown with the help of irrigation and fertilization. Crops like dates, maize, millet, bajra are grown in this soil.



Coconut Tree

## Soil Erosion

As soil is highly important resource for us. Loss of soil or lack in its fertility affects the growing of plants and crops and in turn, the life of living habitants on the Earth.

Running water or wind removed the top soil which is described as soil erosion. It is caused by natural and human activities. Natural elements like wind, rain, land slides, glaciers cause soil erosion. Social activities which assist natural forces in soil erosion are over grazing, deforestation, improper farming methods, etc.



Soil Erosion

## Soil Conservation

To check or prevention of soil erosion is called soil conservation. In other words, soil conservation is to hold the soil in its place because as if the soil is washed (soil conservation) or blown away, it gets lost forever from that particular area or region. Plantation of more and more trees in rows protect the soil erosion. As roots of plants specially grass provide hold to soil. Thus, we should not cut the trees. Controlling over grazing and doing terrace farming on hill slopes also helpful to conserve soil. Small and large dams control floods.

### POINTS OF VIEW

- Soil is the upper most layer of the Earth's crust.
- There are six types of soils found in India.
- Alluvial soil is formed by deposit of fine silt and sand brought by rivers flowing down the Himalaya.
- Mountain soil is formed of clay, sand stone and pebbles.



## Exercise



### A. Tick (✓) the correct option :

- The uppermost layer of the Earth crust is \_\_\_\_\_ .  
(a) water  (b) soil  (c) land
- The soil that is formed by deposition of fine silt is \_\_\_\_\_ .  
(a) Alluvial soil  (b) Mountain soil  (c) Black soil
- Black soil is made up of \_\_\_\_\_ .  
(a) silt  (b) laterite soil  (c) volcano
- Black soil is best suited for the growth of \_\_\_\_\_ .  
(a) wheat  (b) rice  (c) maize
- The most fertile soil is \_\_\_\_\_ .  
(a) Black soil  (b) Alluvial soil  (c) Mountain soil
- \_\_\_\_\_ is the upper most layer of the Earth's crust.  
(a) land  (b) soil  (c) water
- \_\_\_\_\_ has provided our Earth endless things.  
(a) Nature  (b) resources  (c) food

### B. Fill in the blanks :

- The soil formed by clay, sand, stones and pebbles is called the \_\_\_\_\_ soil.
- The soil found in Deccan Plateau is \_\_\_\_\_ soil.

3. Black soil is best suited in the cultivation of \_\_\_\_\_ .
4. Desert soil is mostly found in the state of \_\_\_\_\_ .
5. The Northern plains and coastal plains are made up of \_\_\_\_\_ soil.

C. Write 'True' or 'False' against each statement :

1. Running water and wind causes soil erosion. \_\_\_\_\_
2. The soil formed by clay, sand, stones and pebbles is called black soil. \_\_\_\_\_
3. Black soil is made up of sand and stones. \_\_\_\_\_
4. Laterite soil is found in high altitude areas. \_\_\_\_\_
5. Almost all types of crops can be grown in desert soil. \_\_\_\_\_

D. match the following :

- |                                |                                      |
|--------------------------------|--------------------------------------|
| 1. Soil is the upper           | (i) resources for us                 |
| 2. In India six types          | (ii) dams control floods             |
| 3. As soil is highly important | (iii) cut the trees                  |
| 4. Small and large             | (iv) of volcanic lava                |
| 5. We should not               | (v) most larger of the Earth's crust |
| 6. Black Soil is farmed        | (vi) of soil are found               |

E. Answer the following questions :

1. What is soil? How does it formed?
2. Name the types of soil found in India with their significance.
3. Write down the main reasons of soil erosion?
4. Write a short note on Desert soil.
5. How can we conserve the soil?
6. Write some difference between Black soil and Alluvial soil.



## ACTIVITY BAG

- ▶ On an out line map of India Political given below mark the different soils found in these regions : Jammu & Kashmir, Deccan Plateau, Karnataka, Thar Desert, Chhotanagpur Plateau.



# Forests and Wildlife

Chap.

8



After completing this chapter we will be able to know about :

- ◆ The importance of forests
- ◆ Forests conservation
- ◆ Different kinds of forests
- ◆ National parks and wildlife sanctuaries



Like soil and water, forests and wildlife are the gift of nature.

The forests are the large areas where thick and big trees, shrubs, herbs creepers and grass grown on their own. Earlier more area was covered with forests. Now-a-days the clearing of forests has adversely affected the wildlife as forests are the natural habitat of wild animals. About **one-third** area of land is covered with forests, which maintain the ecological balance.

## Importance of Forests

- Forests are the main source of timber. We use timber for making furniture and houses. Forests provide us fire-wood for fuel, wood pulp for making paper.
- Wood of medicinal value like sandal, fruits, gums, resins, rubbers, etc., are obtained from forests.
- Roots of Trees in forests hold the soil and prevent soil erosion.

- Trees give us oxygen thus, forests are our lifeline.
- Forests help in bringing up more rainfall and keep the surroundings pleasant, green and cool.
- Forests are home to animals in different ways, some of the animals take shelter in their trunks, some in branches and holes and many in bushes and caves etc. Many animals become homeless without forest.
- Forest are also an attraction of tourists. Many tourists visit forest to see the wildlife sanctuaries which brings good revenue for the country.

### Types of Forest

There is a large variety of forests in India depending upon the amount of rainfall. These can be grouped into the following five types :

1. **Evergreen or Tropical Rain Forests** : These forests grow near to the equator. They get heavy rainfall and sunshine throughout the year. The trees in these forests do not shed their leaves. These forests remain green throughout the year.



Evergreen Forest

The trees are tall with hard wood and broad leaves. Tropical forest grows in areas of heavy rainfall like Andaman and Nicobar Islands, northeast India and Western Ghats. Examples of evergreen trees are mahogany, ebony and rosewood.

2. **Deciduous or Monsoon Forests** : These forests are known as **monsoon forests** and found in the foothills of Himalayas, Tamil Nadu, Karnataka, Maharashtra and Madhya Pradesh. Trees in these forests shed their leaves in dry season. Trees like bamboo teak, *sal*, *shisham* and sandalwood are grown in deciduous forests which have a good commercial value.



Deciduous Forest

3. **Coniferous or Mountainous Forests** : These are also known as alpine forests. These are found at an altitude above 4000 mt, i.e, cold Himalayan region therefore they are also called mountainous forests. Conifers, spruce, pine silverfur and deodar are the trees which are generally conical in shape with needle shaped leaves found in this region. They have soft wood that is used to make paper.



Coniferous Forest



4. **Tidal or Mangrove Forests** : These forest grow in the delta regions of the Ganga and the Brahmaputra in West Bengal. "Sundari" trees grow in large number. As such these forests are also called **sunderbans**.

Trees found here are short with rubbery leaves and have so thick trunks that are good for making boats. Sunderban is also the natural home of Royal Bengal Tiger.



Tidal Forest

5. **Thorny and Scrub Forests** : These forests are found in dry areas of the country which receives some rainfall. Thorny bushes, shrubs with thick skin, long thorns and roots penetrate deep under the soil to find water are common. Thorny forests are very common in desert regions of Rajasthan. Its examples are babul, keekar, wild palm and cactus.



Thorny Forest

### Forests Conservation

Today trees in forests are being cutting down to the needs of increasing population. We should control deforestation, i.e, cutting of trees and take steps to plant more and more plants and trees, so as to save our forests.

Deforestation makes the soil barren and dry, the climate hotter and also spoils the wildlife.

Trees are most important part of the life of all living things. We should realize it. In India, the government is making all efforts through its laws, and programs for the protection of trees.



Chipko Movement

- The Chipko Movement was started in 1974 by Sunderlal Bahuguna in Chamoli in Uttarakhand in under which the villagers of the area put their arms around trees and hug them and were successful to save the trees from cutting down.
- 'Vanamahotsava' is celebrated every year in which many trees are planted all over the country. This is also called 'Afforestation'.
- Under the Social Forestry Movement people are encouraged to plant more trees along the side of roads, canals, etc.



Plantation

**Wildlife** : A large number of variety of wildlife is found in India . Deforestation makes many wild animals homeless. As a result their natural environment is destroyed and this leads to the extinction of certain animals and birds. Some are going to be extinct in coming year.

To protect and preserve our wildlife we should come again as the government is taking strict action against hunting and cutting of trees. The government has banned the hunting and punished pouchers severely. Many wildlife sanctuaries and national parks have been set up in all our the country to protect wildlife in forest areas.

**Wildlife Sanctuaries** and **National Parks** are places where wild animals and birds live in natural evnironment to protected from pouchers and hunters. No hunting, no strangers are allowed to enter these areas. Here animals live in undisturbed and safe natural environment. India has 150 wildlife sanctuaries and 80 national parks. Some of these parks and sanctuaries are :

- |                             |   |                |
|-----------------------------|---|----------------|
| □ Jim Corbett National Park | - | Uttrakhand     |
| □ Ranthambore National Park | - | Rajasthan      |
| □ Sariska National Park     | - | Rajasthan      |
| □ Periyar National Park     | - | Kerala         |
| □ Bandipur National Park    | - | Karnataka      |
| □ Kanha National Park       | - | Madhya Pradesh |
| □ Sasan Gir National Park   | - | Gujarat        |
| □ Kaziranga National Park   | - | Assam          |
| □ Bharatpur Bird Sanctuary  | - | Rajasthan      |
| □ Manas Wildlife Sanctuary  | - | Assam          |

Animals like tigers, elephants, lions, rhinoceros, cobras, cranes, etc., are protected in these parks and sanctuaries.

**POINTS OF VIEW**

- About one-third area of land is covered with forests.
- Deciduous forests are also known as Monsoon forests.
- Coniferous forests are also known as alpine forests.
- Trees are most important part of the life of all living things.
- Chipko movement was started in 1974 by Sundarlal Bahuguma.
- A number of variety of wildlife is found in India.



## Exercise

### A. Tick (✓) the correct option :

1. Deciduous forests are also known as \_\_\_\_\_ forests.
 

(a) Monsoon <input type="checkbox"/>	(b) Tidal <input type="checkbox"/>	(c) Mangrove <input type="checkbox"/>
--------------------------------------	------------------------------------	---------------------------------------
2. Bandipur National Park is located in \_\_\_\_\_.
 

(a) Kashmir <input type="checkbox"/>	(b) Kerala <input type="checkbox"/>	(c) Karnataka <input type="checkbox"/>
--------------------------------------	-------------------------------------	--
3. Nearly \_\_\_\_\_ area is covered with forest of our country.
 

(a) one-third <input type="checkbox"/>	(b) one-fourth <input type="checkbox"/>	(c) one-fifth <input type="checkbox"/>
--	---	--
4. Thorny forests are found in \_\_\_\_\_ areas.
 

(a) dry <input type="checkbox"/>	(b) wet <input type="checkbox"/>	(c) None of them <input type="checkbox"/>
----------------------------------	----------------------------------	---
5. Which forests shed their leaves once in a year?
 

(a) Deciduous forests <input type="checkbox"/>	(b) Coniferous forests <input type="checkbox"/>	(c) Tidal forests <input type="checkbox"/>
--	---	--
6. Sariska National Park-
 

(a) Kerala <input type="checkbox"/>	(b) Rajasthan <input type="checkbox"/>	(c) Gujarat <input type="checkbox"/>
-------------------------------------	--	--------------------------------------

### B. Fill in the blanks :

*Thick, Himalayan, sanctuaries, one, National parks, mangrove*

1. The Indian rhinoceros has \_\_\_\_\_ horn.
2. A forest is a large area covered with \_\_\_\_\_ forests.
3. Coniferous forests are found in cold \_\_\_\_\_ regions.
4. Government has set up many wild life \_\_\_\_\_ and \_\_\_\_\_ all over the country to protect our wildlife.
5. Tidal forests are also known as \_\_\_\_\_ forests.
6. Chipko movement was started in \_\_\_\_\_ by Sunderlal Bahuguma.
7. A Number of \_\_\_\_\_ of \_\_\_\_\_ is found in India.

### C. Write 'True' or 'False' against each statement:

1. Tropical rainforests grow in places near equator. \_\_\_\_\_
2. Tree roots hold the soil and prevent soil erosion. \_\_\_\_\_
3. Tidal forests are also known as monsoon forests. \_\_\_\_\_
4. Large scale cutting of trees is called deforestation. \_\_\_\_\_
5. Sunderland is named after the sundri trees that grow in their region. \_\_\_\_\_
6. India has 80 wildlife sanctuaries and 50 national parks. \_\_\_\_\_
7. Trees give us oxygen thus, forests are our lifeline. \_\_\_\_\_
8. Forest are also an attraction of tourists. \_\_\_\_\_

D. Match the following :

Colum 'A'

1. Coniferous forests
2. Deciduous forests
3. Tidal forests
4. Thorn forests
5. Jim Corbett National Park

Colum 'B'

- (a) Mangrove forests
- (b) Dry areas
- (c) Monsoon forest
- (d) Mountain forest
- (e) Uttarakhand

E. Answer the following questions :

1. How are the forests useful to us?
2. Name the different types of forest in India.
3. What do you understand by national parks and wildlife sanctuaries?
4. Write a short note on Evergreen forests.
5. Why there is a need to conserve forests?



- ▶ Make a chart by pasting the animals and birds that are being protected by our government in national park and wildlife sanctuaries. Mention the name of different parks and wildlife sanctuaries where they have been protected.

# Mineral Wealth

Chap. **9**



After completing this chapter we will be able to know about :

- ◆ The importance of mineral wealth
- ◆ Types of minerals

Nature has provided us various resources. There is a variety of minerals that are found in rocks deep under the ground. The underground wealth has to be brought up by digging holes inside the Earth's surface to take out these minerals. These holes are called mines. And the process of digging out minerals from beneath the Earth is called mining. The materials restored are called ores and these ores are refined to get pure minerals. Some minerals are found on the Earth's surface and some at the bottom of the sea.



Coal Mine

## Types of Minerals

Minerals are of two types: Metallic and Non-metallic.

**Metallic Minerals** : Many things that we see around us like the door, gate, grill, wire, taps, fans, etc., are made of metals. Metals are obtained from mineral ores. Metallic minerals are those from which we get metals. Iron, copper, gold, aluminum are some of the important metals. That are obtained after refining and purifying the ores.



Iron ore Mine



Gold Jewellery



Aluminium Aircraft



Electrical Wires

**Copper** was the first metal to be used by man. Rajasthan, Madhya Pradesh and Jharkhand are the states of India where copper is found.

**Iron** is a harder metal than copper. It is used to make tools, machines and their parts, railway coaches and tracks and many more like construction of buildings, pillars, dams, bridges, etc. It is found in Goa, Jharkhand, Chhattisgarh, Odisha, Karnataka, Madhya Pradesh iron-ore and Andhra Pradesh. It is separated from iron-ore in factories to produce iron and steel. The major iron and steel factories are located at Jamshedpur (Tatanagar), Bokaro, Rourkela, Durgapur and Bhilai.

**Silver and Gold** are expensive metals and mainly used to make jewellery and utensils.

**Mica** is used in electrical goods.

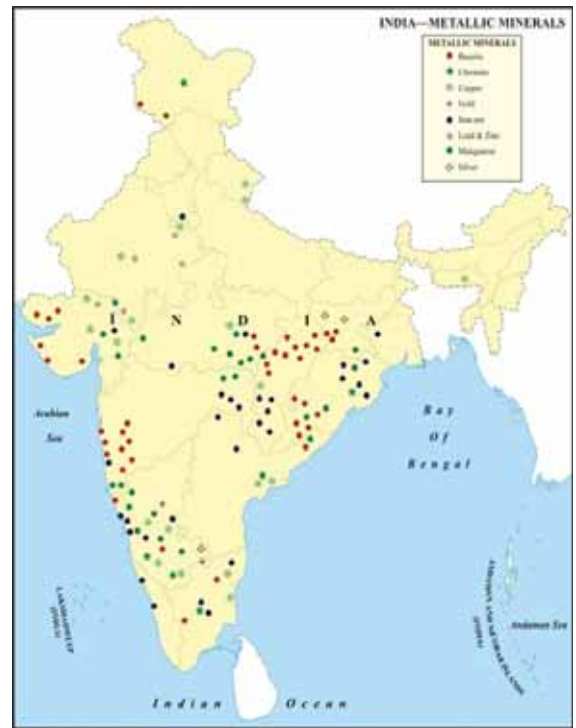
**Aluminum** is extracted from bauxite. It is also very important metal. Being light in weight, aluminium is used in making aircraft and also to make utensils and other items.

**Non-metallic Minerals** : Coal, petroleum and natural gases are major non-metallic minerals that do not contain any metals, but are important source of energy. These are known as fossil fuels. As they are formed from the dead remains of plants and animals, that got buried in the Earth, over millions of years.

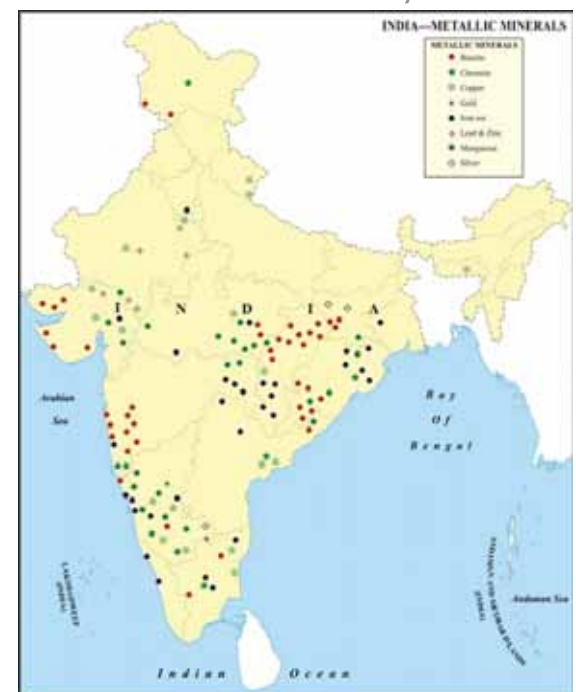
**Coal** is a major source of heat energy. It is used for waiting, cooking, producing electricity and as fuel at steel plants. It is found in West Bengal, Chhattisgarh, Jharkhand and Madhya Pradesh.

**Petroleum** is mineral oil which is obtained from under the sea bed or Earth. Deep wells called **oil wells** are dug to pump out the crude oil. It is refined in the oil refinery to get different products such as petrol, kerosene, diesel, grease, cooking gas, paraffin wax, etc.

An **oilfield** is an area where the oil wells are located. A number of oilfields are located in Digboi in Assam and Ankleshwar in Gujarat and the coast of Mumbai known as Bombay High.



Tata Iron Factory



Natural Gas is also found in oil wells. It is being used as a fuel. CNG or **Compressed Natural Gas** is used to run vehicle in NCR as it is less polluting. LPG or **Liquid Petroleum Gas** is used as a domestic fuel. Mineral resources are our great wealth. They take millions of years to form and hence get easily exhausted. They are called non-renewable sources of energy as the total quantity of these minerals is limited and will not last forever. We must use them wisely and must not waste. These minerals can be conserved by avoiding wastage, and using some alternative sources of energy like Sun, wind and water which are renewable. Although, it is very expensive to convert solar energy into electric energy but our scientists are working hard to make it cheaper. Till then we must have to use our minerals economically.



Bombay High

**POINTS OF VIEW**

- Nature has provided us various resources.
- Minerals are of two types : Metallic and Non-metallic.
- Metals are obtained from mineral ores.
- Copper was the first metal to be used by man.
- Mica is used in electrical goods.
- Coal is a major source of heat energy.
- An oilfield is an area where the oil wells are located.
- Compressed Natural Gas or [CNG] is used to run vehicles.



**Exercise**



A. Tick (✓) the correct option :

1. Deep holes dug into Earth's surface are called \_\_\_\_\_ .  
 (a) mines  (b) copper  (c) volcano
2. Which of these is a renewable source of energy?  
 (a) Coal  (b) Water  (c) Plant
3. Which of these is a metal?  
 (a) Petrol  (b) Iron  (c) Mica

4. Liquid gold is known as \_\_\_\_\_ .  
 (a) silver  (b) gold  (c) petroleum
5. The most important metal of the Earth in India is \_\_\_\_\_ .  
 (a) copper  (b) iron  (c) bauxite
6. Mica is used in \_\_\_\_\_ goods.  
 (a) Electrical  (b) Natural  (c) Petroleum

**B. Fill in the blanks :**

- The people who bring out minerals from the Earth's surface are called \_\_\_\_\_ .
- Coal gives us \_\_\_\_\_ .
- Ores are refined at the \_\_\_\_\_ .
- Liquid Gold is another name for \_\_\_\_\_ .
- People also use coal as \_\_\_\_\_ .
- LPG or \_\_\_\_\_ is used as a domestic fuel.
- Mineral resources are our great \_\_\_\_\_ .
- Natural Gas is also found in \_\_\_\_\_ .

**C. State 'True' or 'False' :**

- Silver and gold are expensive metals generally used for making jewellery. \_\_\_\_\_
- All the minerals are metallic in nature. \_\_\_\_\_
- Copper was the first metal to be used by the early-man. \_\_\_\_\_
- Aluminium is extracted from mica. \_\_\_\_\_
- Mica is a good conductor electricity. \_\_\_\_\_
- Minerals are of four types. \_\_\_\_\_
- Metals are obtained from mineral area. \_\_\_\_\_

**D. Match the following :**

- |                              |  |
|------------------------------|--|
| 1. Compressed Natural Gas or | (i) of heat energy.                    |
| 2. Mica is used in           | (ii) to be used by man.                |
| 3. Copper was first metal    | (iii) where the oil wells are located. |
| 4. An oilfield is an area    | (iv) (CNG) is use to run vehicles.     |
| 5. Coal is a major source    | (v) electrical goods.                  |

**E. Answer the following questions :**

- Name two types of minerals?
- Where are minerals formed?



3. Which mineral is also known as liquid gold and why?
4. Name the two alternative sources of energy?
5. Iron is also called backbone of a civilization why?
6. write a short note at CNG.



## ACTIVITY BAG

- ▶ Following minerals are found in which states of India ?

Copper : \_\_\_\_\_

Iron : \_\_\_\_\_

Silver and Gold : \_\_\_\_\_

Petroleum : \_\_\_\_\_

Coal : \_\_\_\_\_

- ▶ What is CNG? CNG is being widely used today as an alternative fuel. Write a short note in your note book about the benefits of using CNG.

# Agriculture and Livestock

Chap. **10**



After completing this chapter we will be able to know about :

- ◆ The agriculture and livestock of India
- ◆ Different types of crops grown in India
- ◆ Agricultural developments

India is an agriculture based country. Agriculture is the most important occupation of about two-third of India's population. More than 70% of Indian population is living in villages and involved in farming. Our farmers provide us with a variety of food crops and raw materials like lentiles, sugar, oil, jute, milk, etc.



Farming

The land is the major resource and favourable climatic conditions as well which help in the growth of different types of crops. Land is a fixed asset that cannot be expanded. Farmers in India grow a wide variety of both food and cash crops. According to summer and winter seasons. *Kharif* crop is grown in summer like rice, maize, millete, cotton, jute, etc and *Rabi* crop like wheat, gram, mustard, pulses, etc, are grown in winter.

Rainfall, irrigation facilities, nature of soil purpose of production, size of field and technology are some main factors which affect the basis of different types of agriculture in India :

**Dry Farming :**  
Farmers adopt dry farming where rainfall is less than 80 cm. Jowar, bajra, and pulses are grown in this type of farming.



Jowar



Bajra



Pulses

Rajasthan, Maharashtra, Haryana, Gujarat, parts of Madhya Pradesh and Karnataka, are the land areas where farmers adopt dry farming.

**Irrigated Farming :** Where the rainfall is between 80cm to 200cm in such areas, irrigation from the rainfall along with surface water and under the surface water is done. It is called the **irrigated farming**. Wheat, rice and sugarcane are grown under it. It is adopted in Punjab, Haryana, Uttar Pradesh, Maharashtra. Karnataka and Andhra Pradesh.



Sugarcane Field



Rice Field



Wheat Field

**Wet Farming :** Where rainfall is more than 200cm there wet farming is done. Rice and jute are the main crops. Farmers in West Bengal, Asom, Nagaland, Meghalaya, Tripura, Manipur, Mizoram and Malabar practice it.

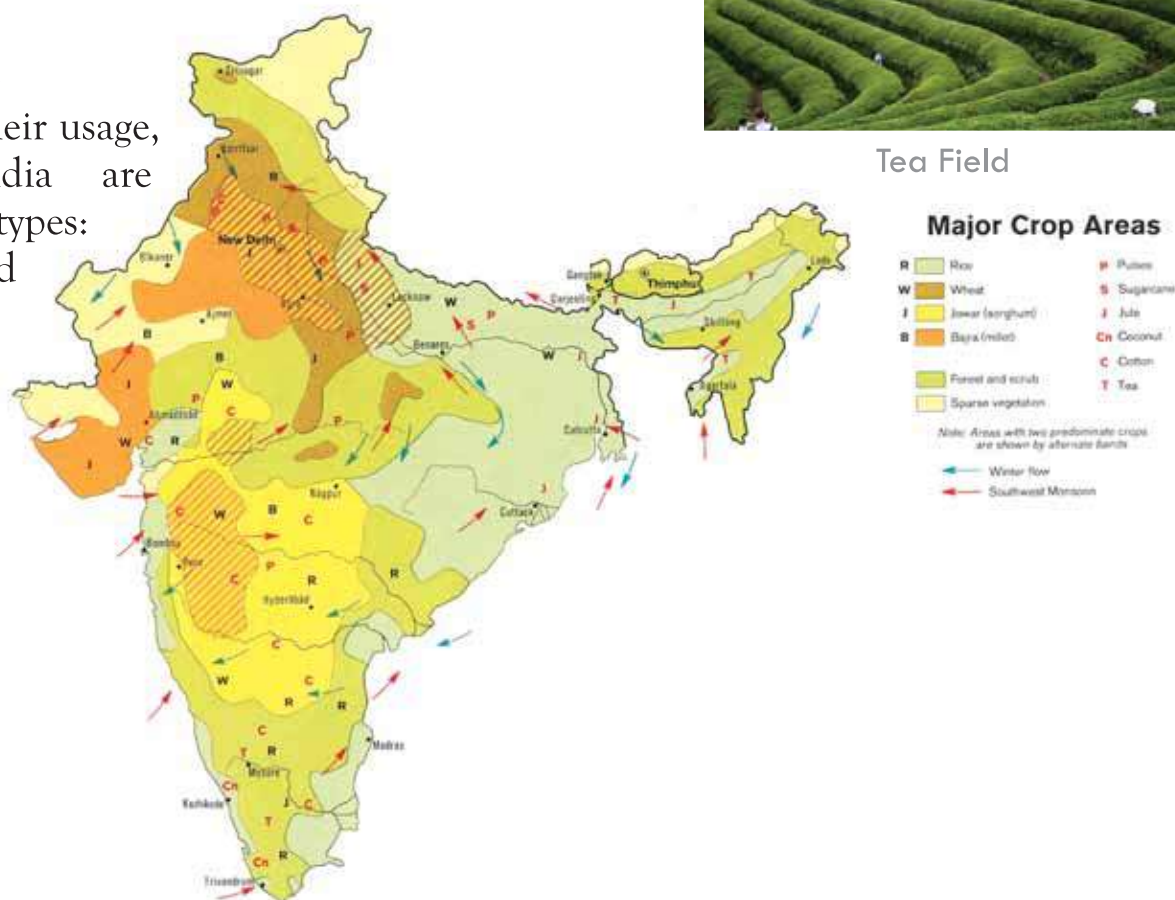


Tea Field

### Types of Crops

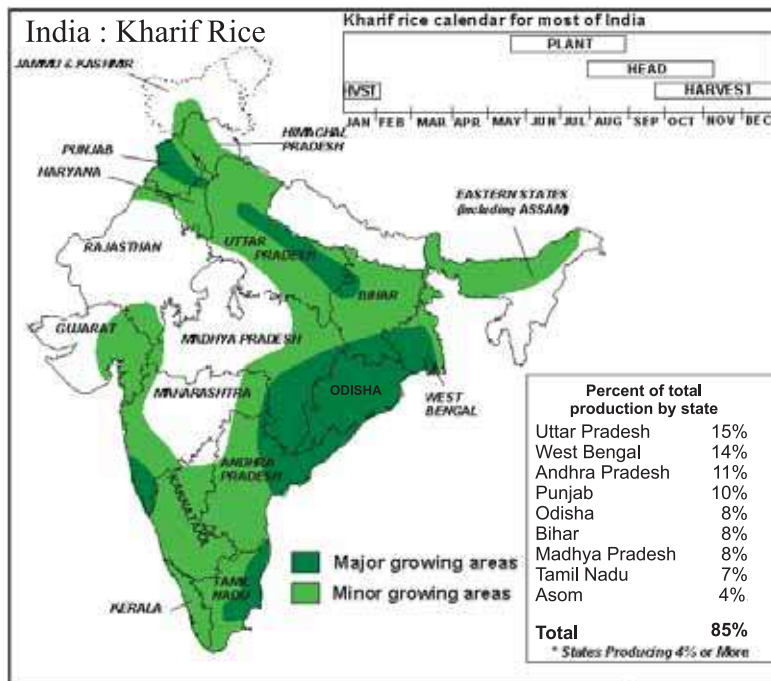
Based on their usage, crops in India are mainly of two types:

**Food crops** and **cash crops**.



**Food Crops :** Crops that people eat as food are called Food crops. These crops form the staple diet of the people. The main food crops of India are rice, wheat, maize, millets and pulses.

**Rice** is the most important food crop. It grows well in hot and humid areas where good amount of water is available. Bengal, Bihar, Andhra Pradesh, Tamil Nadu, Kerala are the major rice producing states. Rice is the staple food in the southern and eastern parts of India.



Rice Production in India

Wheat is the second most important food crop. It grows best in cool and dry conditions. It is a winter crop. Punjab, Haryana, Uttar Pradesh are the major wheat producing states.

It is the staple food of north India. Millets include jowar, bajra and ragi are generally grown in highly dry regions of India. Haryana, Gujarat, Rajasthan, Karnataka, Andhra Pradesh, and Madhya Pradesh are the main producer of millets. Pulses are very rich in protein and are also used as fodder for cattle. Hence pulses are grown on large scale in almost every part of India. These include grams, beans, peas, moong, arhar, urad, etc.



Beans



Moong Dal



Arhar Dal



Urad Dal

**Cash Crops :** These crops are sold for foreign exchange, provide raw materials to industries. The main cash crops of India are oilseeds, sugarcane, tea, coffee, spices, jute, tobacco and rubber.

**Sugarcane** is used for making sugar and jaggery (*gurr*). India is the largest producer of sugarcane in the world and Uttar Pradesh is the leading producer among the Indian states.

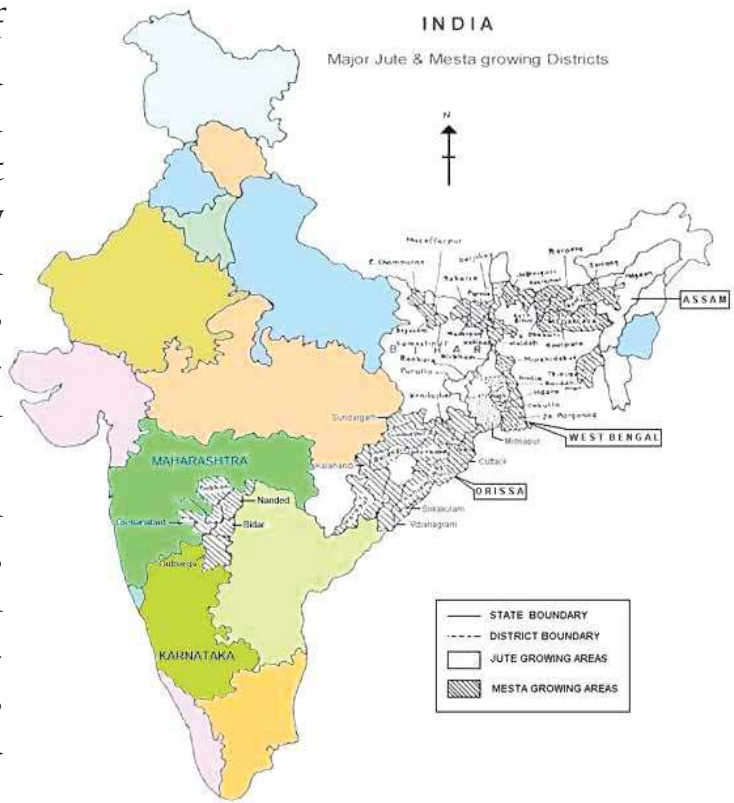
**Oilseeds** include groundnut, mustard, coconut (copra) sunflower, sesame, castor seed, linseed and many more.

They are grown in different parts of India like Punjab, Gujarat, Andhra Pradesh, Tamil Nadu, Kerala and Karnataka. Tea and coffee are important beverage crops also grown in our country and India is the leading producer of tea in the world. It is mainly grown in Darjiling, Asom and the Nilgiri hills in the south. Coffee is grown in Kerala, Karnataka and Tamil Nadu.

**Fiber Crops** of India Jute and cotton are main. Jute is used to make bags, carpets and many other things. It is grown in West Bengal, Bihar, Assam and Odisha. And cotton is grown in Punjab, Gujarat, Madhya Pradesh, Maharashtra, Andhra Pradesh and Tamil Nadu.

**Spices** include cardamom, clove, black pepper, chillies, cinnamon, nutmeg, etc., to add taste and flavour in our food. They are grown in Kerala and Karnataka which receive heavy rainfall.

Fruits and vegetables are grown in nearly every part of India. Apples are grown in Himachal Pradesh, and Jammu & Kashmir, mangoes are grown in Uttar Pradesh, West Bengal and Bihar.



Map of India-Cash Crop



Spices



Fruits

## Agriculture Developments

A lot of changes occurred in agricultural sector over a period of time which gave growth and development to the agriculture. In ancient times, farmers plough field with animals and simple tools, everything was done manually. Now-a-days many modern machines and techniques are used by farmers and India has made a great progress in this field.



Tractor to increase agriculture production and works faster

The government has been bringing out various schemes to provide education, better facilities and equipment to farmers so that they might use better scientific methods of farming to increase the total agricultural production of the country. The government also provides loans with very low interest rates to make the farmers able to buy lands, equipments, fertilizers, better seeds, animals, etc. The cooperative societies of a region take care of the needs of farmers. The government often conducts workshops. Farmers are using high yielding variety seeds, insecticides, fertilizers, pesticides, etc. They have replaced animals and ploughs with combined harvesters and tractors for fast and easy ploughing and farming.



Tube-well make irrigation suitable

It was about 1970 when all these changes were brought in by a movement which has made India self sufficient in food production. This movement is known as the **Green Revolution** or *Harit-Kranti*.

### Livestock

Agriculture also includes livestock rearing, poultry farming and fishing. Animals that are kept on farms for our use, benefits and profits are called livestock. Breeding and bringing up farm animals is called livestock rearing. Cows and buffaloes are most important for farmers; are together called cattle, cattle give us milk from which milk products like curd, cheese, cream, butter, etc, are made and make our food complete.



Cattle Grazing

Livestock help us in many ways. They help the farmers in field like bulls and oxen. Horses, oxen and bulls are used to pull carts and to transport farm produce to the market. Sheep provide us wool. Camels are very useful to carry loads, of people in desert areas. New breeds of cattle are being developed which help to increase the production of milk. This is known as White Revolution.



Poultry Farm

Fishery also provide us food and source of income. Cultivation of fish for commercial purpose is also being done in artificial ponds. This is called pisciculture. Fish are dried and frozen for export. Poultry farming is also being done on a large scale in our country. In it, hens, ducks and geese are reared for their eggs and meat.

Animal waste like cow dung is also used in villages to produce biogas which is renewable and cheap source of energy.

In villages, farmers occupy themselves in both agriculture and as well as in animal rearing simultaneously. This system of occupation is known as mixed farming.

Animals are always useful and friendly to us. They serve us from birth till death. They are our true wealth. They have been helpful to us always and forever since early times. We should take care of them and always be kind to them.



Fishing



Biogas Plant



Cow



Horse



Donkey



Giraffe

**POINTS OF VIEW**

- More than 70 % of Indian population is living in villages and involved in farming.
- Kharif crop is grown in summer season.
- Wheat, rice and sugarcane are grown in Punjab, Haryana, Uttar Pradesh, Maharashtra and Karnataka.
- Rice and wheat are the most important food crops.
- Jute and cotton are the main fibre crops.
- Agriculture also includes live stock rearing. Poultry farming and fishing.



**Exercise**



A. Tick (✓) the correct option :

1. Cultivation of fish for commercial purpose is called \_\_\_\_\_.  
 (a) Horticulture  (b) Pisciculture  (c) Farming
2. Biogas is produced from \_\_\_\_\_.  
 (a) chemical  (b) liquid gas  (c) cow dung

3. Which of these is not a rabi crop?  
 (a) Wheat  (b) Rice  (c) Gram
4. The animal useful in desert region to carry people and goods is \_\_\_\_\_ .  
 (a) horse  (b) elephant  (c) camel
5. Which of these is a kharif crop?  
 (a) Cotton  (b) Wheat  (c) Pulses

**B. Fill in the blanks :**

1. \_\_\_\_\_ crops are grown in summers like rice, maize, millette, etc.
2. Where rainfall is more than 200 cm the \_\_\_\_\_ farming is done.
3. Rice is the staple food in the \_\_\_\_\_ and \_\_\_\_\_ parts of India.
4. Pulses are very rich in \_\_\_\_\_ .
5. Sugarcane is used for making \_\_\_\_\_ and \_\_\_\_\_ .

**C. Write 'True' or 'False' against each statement:**

1. Rabi crop is grown in summer season. \_\_\_\_\_
2. India is the second largest producer of rice. \_\_\_\_\_
3. Almost 40% of Indians are involved in farming. \_\_\_\_\_
4. Biogas is used as fuel in vehicles. \_\_\_\_\_
5. Rice is a cash crop. \_\_\_\_\_

**D. Differentiate between the following :**

1. Rabi and Kharif crops
2. Food crops and cash crops
3. Staple food of eastern and western India

**E. Define the following terms :**

1. Biogas
2. Pisciculture
3. Livestock rearing
4. Dry farming

**F. Answer the following questions :**

1. Discuss about the main two crops grown in India.
2. Write a short note on cash crops.
3. Explain the necessary conditions for carrying out agricultural activities.
4. Name the important food crops of our country.



- ▶ Go to your kitchen. Look at the different jars. Collect samples of different crops, food-grain, etc., make small packets of each separately. Now sort them out and classify under food-grains, millets, pulses, oilseeds, spices, fibres, etc.



# Test Paper-1

(Based on Chapters 1 to 10)

Note : All questions are compulsory :

A. Tick (✓) correct option :

1. Which of these is known as the food factory of the plant ?  
(a) Root  (b) Stem  (c) Leaves
2. It can change its colour according to its surroundings \_\_\_\_\_ .  
(a) chameleon  (b) monkey  (c) elephant
3. Food rich in Vitamins and minerals keep us \_\_\_\_\_ .  
(a) fit  (b) healthy  (c) both (a) and (b)
4. The National dress of Indian woman is \_\_\_\_\_ .  
(a) Saree  (b) Salwar-Kameez  (c) Kimona
5. It is not a way of purifying water \_\_\_\_\_ .  
(a) cooling  (b) filtration  (c) sedimentation
6. Which is the capital territory of India ?  
(a) Goa  (b) Delhi  (c) Lucknow
7. Black soil is best suited for the growth of \_\_\_\_\_ .  
(a) wheat  (b) rice  (c) maize
8. Bandipur National Park is situated in \_\_\_\_\_ .  
(a) Kashmir  (b) Kerala  (c) Karnataka
9. Which of these is a metal ?  
(a) petrol  (b) iron  (c) mica
10. Biogas is produced from \_\_\_\_\_ .  
(a) chemical  (b) liquid gas  (c) cow dung

B. Fill in the blanks :

1. Plants need \_\_\_\_\_ to prepare food.
2. Natural clothes are \_\_\_\_\_ to wear.
3. The great \_\_\_\_\_ ranges are situated in the north.
4. Liquid gold is another name of \_\_\_\_\_ .
5. Rice is the staple food in the \_\_\_\_\_ and \_\_\_\_\_ parts of India.
6. Sugarcane is used for making \_\_\_\_\_ and \_\_\_\_\_ .

C. Write 'True' or 'False' against each statement :

1. Terrestrial animals walk or run on the ground. \_\_\_\_\_
2. Our body need vitamins in more quantity. \_\_\_\_\_
3. Cool air is light and rises up. \_\_\_\_\_
4. All most all types of crops can be grown in desert soil. \_\_\_\_\_
5. All the minerals are metallic in nature. \_\_\_\_\_

D. Match the following :

- |                       |                          |
|-----------------------|--------------------------|
| 1. Chlorophyle        | (a) Japan                |
| 2. Carbohydrate       | (b) salt                 |
| 3. Kimona             | (c) black gold           |
| 4. Soluble impurities | (d) gives us more energy |
| 5. Coal               | (e) green colour pigment |

E. Answer the following questions :

1. How are the plants and animals interdependent?
2. What is the difference between aquatic and amphibian animals?
3. Name the neighbouring countries of India.
4. Why there is a need to conserve forests?
5. Discuss about the main two crops of India.

# Industries in India

Chap. **11**



After completing this chapter we will be able to know about :

- ◆ The importance of industries in mankind
- ◆ The different types of industries



Industries play an important role in economic growth of a country. Natural resources, which are raw materials for a particular product are needed by an industry to change into finished goods that are ready to be used. *For Example :* The cotton balls that we get from plants cannot be used directly. It has to be changed into cotton clothes in the textile industry. Thus, **industry** is the place where finished goods are produced from raw materials. Industry needs raw materials. Other things needed by it for processing raw materials are money, machines, man power, electricity and transport.

Industrial development of a country is possible when it has :

- Proper technical skills
- Proper resources
- Supportive facilities like energy, healthy environment, transportation, education, communications and trading.
- Skilled labour, manpower and entrepreneurs to take advantage of such infrastructure available and keep on adding to it.

## Classification of Industries

There are many ways of grouping industries. Based on the number of people employed and the kind of tools and machines used, industries are grouped into three main types :

1. Cottage Industry
2. Small-scale Industry
3. Large-scale Industry

1. **Cottage Industries** : These are very small and set up at home. Generally people do art work, handicrafts, handlooms with simple tools and machines. They require very few people and simple machine and materials found nearby there place. These industries are is family-owned and workers may be family members also. Working hours are not fixed and may be irregular. For examples: toy-making, carpet-weaving, basket-making, pot-making, paper bowl moulding, flour and pulses grinding, etc.



Cottage Industry

2. **Small-scale Industries** : These are small industries but bigger than cottage industries. Such industries needs less people, light machines and less amount of money. They may have lesser numbers of working hours and days. Utensils, soaps, furniture, biscuits, garments, plastic goods, etc., are the products generally made in small-scale industries.



Small Scale Industry

3. **Large-scale Industries** : These are very big industries. Thousand of workers are employed in these industries. These industries required big machines, large amount of money and goods, infrastructure to produce goods on a large scale. Textile industries, steel and iron industries, ship building industries, automobile industries, electrical goods manufacturing units, etc., are some of the large-scale industries.

Textile industries include cotton textile, woollen textile, silk-textile, jute-fibre textile and synthetic fibre textile.

These are the oldest industries of our country. India is one of the leading producers of cotton taxtile in the world . Maharashtra, specially Mumbai is the largest textile centre. Kolkata, Ahmedabad, Surat, Lucknow and Madurai are famous centres of textile industries.



Textile Industry

**Iron and Steel Industries :** These are most important as machines and tools needed in all industries are made of iron and steel. This is the backbone of all industries. The iron and steel plants are located in regions close to the iron ore mines. Important iron and steel plants are located in Durgapur, Jamshedpur, Bokaro, Bhilai and Rourkela.

Important automobile industries are located in Mumbai, Kolkata, Pune, Gurgaon and Chennai. The important centres of the ship-building industry are located in Kochi, Mumbai, Vishakapattanam. Railway coaches are made at Perambur and Kapurthala. Electric goods are made in Bengaluru, Mumbai, Pune, Coimbatore and Chennai, BHEL (in Bhopal) i.e. **Bharat Heavy Electrical Limited** produce heavy electrical goods.

Information technology industries are located in Bengaluru and Hyderabad.

Chemical, fertilizers, papers, cement, sugar, leather, electronic goods and telephone industries are some other large-scale industries.

Development of industries is making us self-sufficient in the production of various goods. We are progressing fast. As a result, we are leading a comfortable life today. However, this is also having a bad effect on our environment because industries cause air and water pollution. Therefore we should make efforts to check pollution, which would definitely harm us.



Automobile Industry



Paper Mill



Railway Coach Factory

## POINTS OF VIEW

- Industries play an important role in economic growth of a country.
- Cottage industry is very small and set up home.
- Thousand of workers are employed in large-scale industries.
- Iron and steel industries are backbone of all industries.
- Bharat Heavy Electrical Limited [BHEL] produce heavy electric goods.



## Exercise



### A. Tick (✓) the correct option :

- Which industry is the oldest industry in India \_\_\_\_\_ .  
(a) Textile  (b) Automobile  (c) Ship-building
- Which kinds of goods are made in cottage industries?  
(a) Ships  (b) Handicrafts  (c) Railway coaches
- Industry is a place where goods are made from \_\_\_\_\_ .  
(a) iron-ore  (b) wood  (c) raw- materials
- Which industry is the backbone of all industries?  
(a) Mica  (b) Iron and Steel  (c) Copper
- Industries transform raw materials into \_\_\_\_\_ goods.  
(a) finished  (b) semi-finished  (c) both of them

### B. Fill in the blanks :

- \_\_\_\_\_ industries are the backbone of all industries.
- \_\_\_\_\_ is the oldest industry in India.
- \_\_\_\_\_ is also called 'Silicon Valley' of India.
- \_\_\_\_\_ is a cottage industry.
- Industries transform raw-materials into \_\_\_\_\_ goods.

### C. Write 'True' or 'False' against each statement :

- Small scale industry employ thousands of people. \_\_\_\_\_
- Industries play an important role in economic growth of a country. \_\_\_\_\_
- Industry is a place where raw materials are produced. \_\_\_\_\_
- Railway coaches are made at Perambur and Kapurthala. \_\_\_\_\_
- Cotton textile mills are spread all over India. \_\_\_\_\_

### D. Answer the following questions :

- What do you understand about the term of 'industry'?
- Why are industries important?
- What do you understand by cottage industry?
- What is a large-scale industry?
- Why are iron and steel industries very important for us?

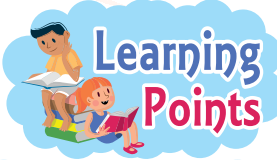


## ACTIVITY BAG

- ▶ Ask the children to visit a nearby cottage industry with their parent and write a short note on that industry.

# Life in the Northern Mountains

## Chap. 12



After completing this channel we will be able to know about:

- ◆ The different living styles people of northern mountain
- ◆ The states, that lie in northern mountains



We know that the life of mountainous people is very hard to live but it is so pleasant and **delightful**. We will describe about the life style of the mountainous people in this chapter.

We have read that the northern part of our country is surrounded by the mountains. These mountains are collectively called the **Himalayas**. Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, etc., are located in the lap of the Himalaya.

### Jammu & Kashmir

It is the northernmost state of India. It is situated in the Himalayan mountains. Jammu & Kashmir shares a border with the states of Himachal Pradesh and Punjab to the south and internationally with the people's Republic of China to the north and the east and with Pakistan to the west.

You can see **houseboats** floating in the beautiful **Dal Lake** of Srinagar. A houseboat is a house, built on a boat. These boats are rented out to tourists for short periods. A **Shikara** is smaller boat used for going from one houseboat to another on the lake.

Jammu & Kashmir consists of three regions : Jammu, the Kashmir Valley and Ladakh. **Srinagar** is the summer capital and **Jammu** is the winter capital.



Jammu & Kashmir

While the Kashmir Valley, as called by Jahangir's wife as "Paradise on the Earth", is famous for its beautiful mountainous landscape. Jammu is the numerous shrines attract tens of thousands of Hindu and Muslim pilgrims every year. Ladakh, also known as "Little Tibet", is renowned for its remote mountainous beauty and Buddhist culture.

**Food and Dress :** The main food of the people in Jammu & Kashmir is rice, maize and potatoes and other vegetables. Apples of Kashmir are famous all over the world. Kashmir is very fond of drinking a special kind of milkless tea called **Kahwa**.

People of Kashmir wear a loose woollen shirt called **phiran** with **salwar**. In very cold weather they carry a small *kangri* with them to keep themselves warm. **Yak** is their domesticated animal which gives them milk, wool and meat. Their famous dance is **Rouf**.



Vaishno Devi



Gulmarg

**Tourism :** **Gulmarg, Sonmarg, Pahalgam, Amarnath Caves** and the **Vaishno Devi temples** are the famous tourist places in Jammu & Kashmir.

### Himachal Pradesh

Himachal Pradesh is located in the lap of the Himalayas. **Shimla** is the capital of Himachal Pradesh. Kullu Manali, Kasauli, Solan, Chail, etc., are the main hill stations of this state. **Dharamshala, Dalhousie, Chamba, Khajjiar** are the main tourist centres.

The people of Himachal Pradesh celebrate **Dussehra** festival with great pomp and show.

The main occupations of the people of Himachal Pradesh are agriculture and horticulture. They grow more wheat, maize, rice crops. They grow various kinds of fruits. The apples of Himachal Pradesh are also famous all over the country.

People of Himachal Pradesh wear **shirts** and **payjama** and the women wear **kurta** and **payjama** with scarves. **Nati** is the famous folk dance of this state. They speak **Hindi**.

### Uttarakhand

It is a part of Uttar Pradesh. It was declared on 9th November, 2000. **Dehradun** is the capital of this state. The hills in Uttarakhand include high ranges such as **Garhwal** and **Kumaon**.

**Agriculture** and **cattle rearing** are the main occupations of the people. The main crops grown here are rice, wheat, maize and vegetables.



A Bhotia Man



**Hindi** and **Garhwali** are the main languages spoken by the people.

Many tribes live in this state. The **Bhotia** tribe is the most common. They are Hindus but many of them follow Buddhism.

Bhotia men wear **long coat** with **payjama** and a **cap** while the women wear a **short-sleeved coat** called **chung**.

Hill stations such as **Nainital** and **Mussoorie** lie in this state. The famous pilgrim centres in this state are **Badrinath**, **Kedarnath**, **Gangotri**, **Yamunotri**, **Rishikesh** and **Haridwar**.

The **Gangotri** and the **Yamunotri** glaciers are the source of the rivers Ganga and Yamuna respectively.

**Basmati Rice** of Dehradun is famous all over the world.

## Sikkim

Sikkim is a small state in the eastern Himalayas. It has high mountain peaks like **Kanchanjunga** which is the third highest peak in the world. **Gangtok** is the capital city of Sikkim. The state is famous for orchards.

People eat rice, pulses, vegetables and meat. They wear traditional colourful dresses.

The Sikkimese are mostly farmers. They grow rice, wheat, fruits and vegetables. Some people rear sheep, goat and yak.

**Arunachal Pradesh**, **Assam**, **Meghalaya**, **Tripura**, **Nagaland**, **Manipur** and **Mizoram** are called **seven sisters**.

## Arunachal Pradesh

It is the easternmost state of India. It is a big state with relatively small population. The capital of Arunachal Pradesh is **Itanagar**. The Brahmaputra river enters India through Arunachal Pradesh.

Arunachal means “Lap of the Sun”. This name is given to this state because being the easternmost state, the sun rises here earlier than in other parts of India.

The people are simple and hardworking. They grow rice, maize, millets, oilseeds and tobacco. Their traditional method of agriculture is **Jhoom**, which is a kind of shifting cultivation. Fishing is an important occupation here. People make beautiful crafts of bamboo and cane. Weaving is also an important handicraft of this state.

Many tribes live here in different valleys. They speak their own dialects. They wear



Sikkim People



People of Arunachal Pradesh

traditional colourful dresses. Their food is simple which consists of rice, millets and maize.

There is a very old fort and a lovely lake which attracts the tourists interest. India's largest Buddhist monastery is located here at **Tawang**.

### Meghalaya

'Meghalaya' means the 'Abode of clouds.' Mawsynram in Meghalaya receives the highest rainfall in the world. Shillong is the capital city. It is a beautiful hill station.

The people of Meghalaya grow rice, maize, potato, turmeric, jute and sugarcane. Some people are engaged industries. They speak **Garo**, **Khasi** and **English**.

The people of Meghalaya are very fond of music and dance.

### Nagaland

It is a small state in eastern part of India. It is full of valleys and hills. Its capital is **Kohima**.

Mostly **Naga** people live here. Their tribe are mainly farmers and hunters. **Rice** is the main food of the Nagas. They make many articles out of bamboo, cane and wood.

Nagas are very brave people. They have about sixteen tribes or groups. Since most of the Nagas are Christians. They speak **English** and celebrate **Christmas** and **Easter**. People of Nagaland wear colorful clothes.



Nagas

**Dimapur** and **Kohima** are two important towns of Nagaland.

**Rice beer** is a popular drink here which is called **Zutho** in Nagaland.

### Manipur

It is also a small state with hills, valleys and plains. The people are called **Manipuris**. Pt. Jawaharlal Nehru called Manipur as **Jewel of India**. **Imphal** is the capital of Manipur.

The people eat rice, pulses, fish and vegetables. Women wear skirts made of colorful striped clothes.

Farming and weaving are the important occupations of the Manipuris. They also make bamboo, cane and leather goods.

Manipuris are fond of singing and dancing. **Manipuri** dance is famous all over India.

### Mizoram

It means '**The land of the Mizos**'. The word 'Mizo' means the 'hilly people'. It is the land of hills. **Aizawl** is the capital of Mizoram.

Agriculture is the main occupation here. Major cash crops are mustard, sesame

and potatoes. Rice is the main food-crop followed by maize. Some people here are engaged in handloom industries.

The people of Mizoram have been greatly influenced by the British. Mostly people are well educated. They speak **Mizo** language. Most of the Mizos have converted to Christianity and speak **English**. Their **Bamboo** dance is very famous.

**Presbyterian Church**, **Mizoram Baptist**, **Roman Catholic** and **Salvation Army** are some of the main churches of Mizoram.

Mizos are good craftsmen. They are famous for their handicrafts of bamboos. Fibreless ginger is very famous.

### Tripura

It is partly hilly. **Agartala** is its capital city.

The people in the hills depend on forest products for their livelihood.

**Rice** and **jute** are the main crops. **Bamboo** too is widely grown. Besides farming and handicrafts are the major occupations of the people of Tripura. People mostly speak **Bengali**. They celebrate **Durga Puja** with great fervour.

### POINTS OF VIEW

- Jammu and Kashmir is the northernmost state of India and situated in Himalayan mountain.
- Himachal Pradesh is located in the top of Himalayas.
- The capital of Uttarakhand is Dehradun.
- Sikkim is a small state in the eastern Himalayas.
- Kohima is the capital of Nagaland.
- Manipur is also a small state with hills valleys and plains.



### Exercise



#### A. Tick (✓) the correct option :

1. \_\_\_\_\_ is the paradise on the Earth.  
(a) Tripura  (b) Mizoram  (c) Jammu & Kashmir
2. Capital of Himachal Pradesh is \_\_\_\_\_.  
(a) Srinagar  (b) Shimla  (c) Kohima
3. Nati is the folk dance of \_\_\_\_\_.  
(a) Himachal Pradesh  (b) Manipur  (c) Tripura
4. Mizos live in \_\_\_\_\_.  
(a) Manipur  (b) Meghalaya  (c) Mizoram

#### B. Fill in the blanks :

1. Srinagar is the capital city of \_\_\_\_\_.

2. Seven Sisters is the group of seven \_\_\_\_\_ .
3. \_\_\_\_\_ is the highest mountain peak in the world.
4. The people of Nagaland are called \_\_\_\_\_ .
5. Ladakh is situated in the state of \_\_\_\_\_ .

C. Write 'True' or 'False' against each statement:

1. Uttarakhand is the Paradise on the Earth. \_\_\_\_\_
2. Shimla is the capital city of Himachal Pradesh. \_\_\_\_\_
3. Nagas live in Nagaland. \_\_\_\_\_
4. Srinagar is the capital of Sikkim. \_\_\_\_\_
5. Mawsynram receives the heaviest rainfall of the world. \_\_\_\_\_

D. Write the name of :

1. Capital city of Sikkim \_\_\_\_\_
2. Two places of Jammu & Kashmir \_\_\_\_\_
3. Folk dance of Manipur \_\_\_\_\_
4. Folk dance of Mizoram \_\_\_\_\_

E. Answer the following questions :

1. Describe the food and dress of Kashmir.
2. What is the capital city of Arunachal Pradesh ?
3. Write a short note on Sikkim.
4. What do you mean by 'Seven Sisters' ? Name them.
5. Write a short note on Nagaland.



## ACTIVITY BAG

A. Look at the pictures of the following folk dances. Write their name and their states :



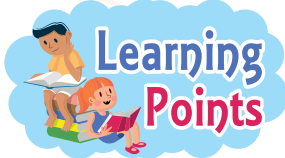
\_\_\_\_\_

B. On an outline map of India locate the following :

- |            |               |            |             |
|------------|---------------|------------|-------------|
| ▶ Srinagar | ▶ Shimla      | ▶ Dehradun | ▶ Kohima    |
| ▶ Agartala | ▶ Shillong    | ▶ Itanagar | ▶ Gangtok   |
| ▶ Aizawl   | ▶ Dharamshala | ▶ Imphal   | ▶ Mussoorie |

# Life in the Northern Plains

Chap. **13**



After completing this chapter we will be able to know about :

- ♦ The life of different states that lie in northern plains such as Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, West Bengal and Asom
- ♦ The people and their life styles who live in northern plains



The Indo-Gangetic Plains are also known as the **Northern plains** or the **North Indian River Plains**. It is a large and fertile plain encompassing most of the northern and the eastern India, the most populous parts of Pakistan, parts of southern Nepal and virtually all of Bangladesh.

The plains are flat and fertile land. **Hinduism**, **Buddhism** and **Jainism** were lived here long ago. The regional differences, however, may be seen in the environment and culture of the people. Let us study about the life of people of the different states of the plains.

## Punjab and Haryana

**Chandigarh** is the capital city of Haryana and Punjab. Haryana has no perennial river like Punjab or other states. But the facilities of irrigation is very good by other sources. People of Haryana and Punjab grow more wheat and rice, etc. Rabi, Beas and Satluj are the main rivers of Punjab.

**Makki-di-Rotti** with **Sarson-da-Saag** and **lassi** is a famous dish of Punjab. **Baisakhi**, **Gurupurva** and **Holi** are the main festivals. **Golden Temple** of Amritsar is very famous place.



Golden Temple

People of Punjab wear *kurta-lungi* and women wear *salwar-kameez* with *Dupatta*. They speak *Punjabi*.

People of Haryana wear *dhoti-kurta* with *turban* and women wear *ghaghara-kameez* with *odhani*. They speak *Haryanavi* language.

## Delhi

**Delhi** is the capital city of India. It lies on the border of Haryana and Uttar Pradesh. It is a cosmopolitan city and has a mixture of various cultures of the country. It is a great historical city too. It was designed by the English architect, **Sir Edwin Luteyen**. It has several monuments like the **Qutub Minar**, **the Red Fort**, **the Old Fort**, the **Jama Masjid**, etc. It has several religious and cultural centres too.



Red Fort

All the offices of Central Government are located here. President, Vice-President, Prime Minister and other ministers of council live here. **Supreme Court of India** is located here. **Hindi**, **English**, **Punjabi and Urdu** are spoken. Independence Day, Republic Day, Gandhi Jayanti, Holi, Christmas Day, Eid are celebrated with great pomp and show.

## Uttar Pradesh

It is the most populous state of India. **Lucknow** is the capital city of Uttar Pradesh. **High Court** of Uttar Pradesh is located at Allahabad. People of all the religions live in Uttar Pradesh. The Ganga, Yamuna, Kosi, etc., are the famous rivers of this state.

Soil and climate of Uttar Pradesh are very suitable for the agriculture. Wheat, maize, rice, jowar, *bajra*, potato, tomato, sugarcane, etc., are the main crops of this state. Water is available easily through the canals, tube-wells, etc., for the irrigation of crops.



Taj Mahal



Sarnath



Varanasi

**Noida**, **Kanpur**, **Firozabad**, **Aligarh**, **Meerut**, **Khurja**, **Saharanpur**, **Moradabad** etc. are the industrial cities. The **Kumbh Mela** is held at Allahabad after every 12 years.

One of seven wonders, the **Taj Mahal** is located at Agra. Hindi is main language but people speak many local dialects such as **Brij**, **Awadhi**, **Bhojpuri**, **Garhwali**, etc.

## Bihar

Bihar is an important ancient land. It has been site of various kingdoms and religions. Several places associated with **Jainism** and **Buddhism** are located here. **Bodhgaya** is a holy place where Lord Buddha attained enlightenment. **Rajgiri** is a religious place of Jains. **Nalanda** (in ruins) is a historical place of the Mauryan Period.

The name Bihar is taken from the word '**Vihara**' which means a 'Buddhist Monastery'. India's first President Dr. Rajendra Prasad too belonged to Bihar.

Bihar is located to the east of Uttar Pradesh. The river Ganga and its tributaries flow through Bihar making the northern region a fertile base for agriculture. **Patna** is the capital of Bihar.

Agriculture is the main occupation of Bihar. Rice, sugarcane, maize, wheat, pulses, jute are the major crops grown in Bihar. The state is rich in mineral deposits too.

**Hindi** and **Urdu** are the main languages spoken in Bihar. **Bhojpuri**, **Magadhi** and **Maithili** are also spoken in different regions.

The main festivals celebrated here are **Chhath Puja**, **Diwali**, **Holi**, **Dussehra** and **Durga Puja**.



Nalanda

## Jharkhand

Jharkhand is separated state from Bihar. It was declared on 15th November, 2000. **Ranchi** is the capital city of this state. Jharkhand was earlier a part of Bihar. It is a newly declared state. It is rich in mineral resources such as **iron**, **coal**, **mica**, **graphite**, etc. **Dhanbad** is called the **Coal Capital**. **Damodar** is the main river of this state. **Chittaranjan**, **Bokaro**, etc., are the main industrial cities of this state.

## West Bengal

It is located in the east of India. It is one of the most fertile states of India because of the Ganga-Brahmaputra delta. **Kolkata** is the capital of West Bengal.

West Bengal receives more rain than Bihar and Jharkhand. Rice and jute are the main crops of West Bengal. Jute is used for making gunny bags, carpets, etc.

**Bengali** is their main language. Rice and fish are the staple food of the people.

The people of West Bengal are fond of music, particularly **Rabindra Sangeet** which still has the touches of Gurudev Rabindranath Tagore.

Kolkata is a great centre of Bengali culture. The Bengali people have a distinct style of wearing the *dhoti* and *saree*.

**Durga Puja** is the main festival of West Bengal. Kolkata's metro railway is the first of its kind in India. Rasogulla, Sondesh, etc., are the famous dishes of this state.

**Shanti Niketan**, located a few kilometres from Kolkata, is the centre of Vishva Bharati University founded by Gurudev Rabindranath Tagore.

**Darjelling** is a famous hill station. It is connected by toy train to **New Jalpaiguri**. It is also famous for its tea gardens.

West Bengal is famous for its jute handicrafts. It is also known for its literature, art and culture.



Shanti Niketan

## Assam

It is a northern state of India. **Dispur** is its capital. It is located to the south of the eastern Himalayas. Assam comprises the **Brahmaputra** and the **Barak** river valleys.

The Brahmaputra is known as the **sorrow of Assam**. It causes heavy floods during the rainy season. The fertile plain is, however, known for rice and jute cultivation. Sugarcane is also grown.

The main occupation of the Assamese is **farming**. Some people work in **coalmines** and **oil fields** too. **Sericulture** is also an important occupation. **Kajiranga Sanctuary** in Assam is famous for one-horned rhinos. Men wear *dhoti* and *kurta* while women wear *saree* and *blouse*. They are fond of music and dance. **Bihu** is famous dance of Assam.

## POINTS OF VIEW

- The plains are flat and fertile land.
- Chandigarh is the capital of Punjab and Haryana.
- Delhi lies on the border of Haryana and Uttar Pradesh.
- Uttar Pradesh is the most popular state of India.
- Bihar is an important ancient land of India.
- Jharkhand declared as the state on 15th, November 2000.
- Kolkata is the capital of west Bengal.





## Exercise



### A. Tick (✓) the correct option :

- Chandigarh is the capital of \_\_\_\_\_ .  
(a) Punjab  (b) Haryana  (c) Both of them
- High Court of Uttar Pradesh is located at \_\_\_\_\_ .  
(a) Lucknow  (b) Meerut  (c) Allahabad
- Agartala is the capital of \_\_\_\_\_ .  
(a) Assam  (b) Uttar Pradesh  (c) Tripura
- Bihu is the folk dance of \_\_\_\_\_ .  
(a) Uttar Pradesh  (b) Assam  (c) Haryana

### B. Fill in the blanks :

- Red Fort is located in \_\_\_\_\_ .
- Chandigarh is the capital city of \_\_\_\_\_ and \_\_\_\_\_ .
- Bihu is the famous dance of \_\_\_\_\_ .
- \_\_\_\_\_ is the capital of India.
- Agra is famous for \_\_\_\_\_ .

### C. Write 'True' or 'False' against each statement :

- Durga Puja is celebrated in Punjab. \_\_\_\_\_
- People of Bihar speak Punjabi. \_\_\_\_\_
- The Golden Temple is located at Punjab. \_\_\_\_\_
- Delhi is the capital of India. \_\_\_\_\_
- Nalanda was famous as the centre of learning in olden days. \_\_\_\_\_

### E. Answer the following questions :

- Write a short note on Delhi.
- Where is Gurupurva celebrated ?
- Where is High Court of Uttar Pradesh located ?
- Describe the agricultural production of Uttar Pradesh.
- Where is Shanti Niketan located ? Who founded it ?



## ACTIVITY BAG

- ▶ Collect pictures of famous places of different states of the Northern plains and paste on a chart paper.
- ▶ Find out dresses of different states and paste their pictures on a chart paper.

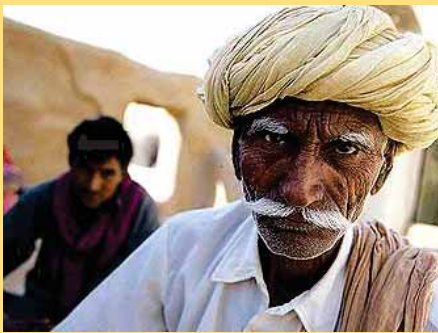
# Life in the Northern Desert

Chap. **14**



After completing this chapter we will be able to know about :

- ◆ The location and climate of northern deserts
- ◆ The life style of the people of northern deserts



Children, you should know that the western part of our country, mostly Rajasthan is the desert region. The life style of the desert region is different from the other regions. We will describe in this chapter about the life style in the desert of Rajasthan.

## Location

Rajasthan is the largest state in India. It is one of the border states of India and is located in the north-western part of India. Punjab and Haryana bound it in the north, Madhya Pradesh and Gujarat in the south and Pakistan in the west and north-west borders. **Jaipur** is the capital of Rajasthan. It is also called the **Pink City**.

The western part of Rajasthan is a desert with little vegetation or water. The soil here is sandy. It has very little rainfall. This desert is a part of the “**Thar Desert**”. It is also called the **Great Indian Desert**.



Thar Desert

## Climate

If you visit this desert region, you will find mostly sand all around. Some places are rocky. These are called the **rocky desert**.

Here are many hills made of sand are called **sand dune**. These sand-dunes keep on shifting from one place to another because the winds in this desert blow at fast speed and deposit sand here and there. These winds are called sound-storms or the dust storms. These are very dangerous for the travellers.

The natural vegetation in desert is very scanty. Some thorny plants, bushes such as *babool*, *keekar*, cactus, etc., grow in desert. Datepalms grow near an oasis. An oasis is a fertile place where some water is available.

The land in the east of Aravalli hills gets some rain. *Jowar*, *bajra*, maize, wheat and oilseeds are the major crops grown in Rajasthan. **Indira Gandhi Canal** has proved as boon to the people of Rajasthan. It has changed the large part of this region into prosperous region. It takes water from Satluj and the Beas rivers.

Mines of mica, copper, zinc, sandstone and marble are in plenty in Rajasthan. Cotton and woollen textiles, cement, sugar, copper are the main industries here.

Animal rearing is another occupation of the people besides agriculture. They rear sheep, goat, camel and cattle.

### Life Style of the People

People of Rajasthan wear bright colorful clothes. The men wear *dhoti-kurta* and a colorful **turban**. The women wear *ghagra-choli* with **odhni** to cover their head. They speak **Hindi** and **Rajasthani**. **Gangaur** and **Teej** festivals are celebrated here with great enthusiasm. They like to dance and sing. **Ghoomar** is the famous dance of Rajasthan. **Kathputli** is famous all over India.

Some important cities of Rajasthan are **Udaipur**, **Jodhpur**, **Jaisalmer**, **Bikaner** and **Ajmer**. The **Urs of Ajmer** is very famous. **Mount Abu** is a famous hill station. **Dilwara Temples** near Mount Abu are famous for their beautiful stone carvings. **Pushkar** is a famous pilgrimage centre. Chittaurgarh has the biggest fort of the country. Ajmer is famous for **Dargah of Moin-Ud-din Chisti**.



Urs of Ajmer



Dilwara Temple



Mount Abu

Handicrafts of Rajasthan are famous all over the world. Marble work, woollen carpets, lac jewellery and embroidery are also famous.

Camel is a very useful animal in the desert. It is used as a means of transport as well as for providing milk, ploughing the fields and for taking out water from the wells. The desert people are called **Rajsthani**. **Banjaras** are also called **Nomads**.

**POINTS OF VIEW**

- Rajasthan is the largest state in India.
- Jaipur is the capital of Rajasthan and known as Pink City.
- Indira Gandhi canal has proved as boon to the people of Rajasthan.
- Udaipur, Jodhpur, Jaisalmer and Bikaner are the important cities of Rajasthan.
- Ghoomer is the famous dance of Rajasthan.
- Pushkar is a famous pilgrimage centre of Rajasthan.



**Exercise**



**A. Tick (✓) the correct option :**

1. \_\_\_\_\_ is a very useful animal in the desert.
 

(a) Horse	<input type="checkbox"/>	(b) Camel	<input type="checkbox"/>	(c) Goat	<input type="checkbox"/>
-----------	--------------------------	-----------	--------------------------	----------	--------------------------
2. Jaipur is the capital of \_\_\_\_\_.
 

(a) Delhi	<input type="checkbox"/>	(b) Maharashtra	<input type="checkbox"/>	(c) Rajasthan	<input type="checkbox"/>
-----------	--------------------------	-----------------	--------------------------	---------------	--------------------------
3. Udaipur is called the \_\_\_\_\_.
 

(a) city of hills	<input type="checkbox"/>	(b) city of lakes	<input type="checkbox"/>	(c) none of them	<input type="checkbox"/>
-------------------	--------------------------	-------------------	--------------------------	------------------	--------------------------

**B. Fill in the blanks :**

1. The desert people are called \_\_\_\_\_.
2. \_\_\_\_\_ is called the ship of desert.
3. \_\_\_\_\_ is a famous hill station.
4. \_\_\_\_\_ is the capital of Rajasthan.

**C. Write 'True' or 'False' against each statement :**

1. Rajasthan lies in the south of India. \_\_\_\_\_
2. Camel cannot live several days without food and water. \_\_\_\_\_
3. Dilwara temples are located in Rajasthan. \_\_\_\_\_
4. Banjaras are called nomads. \_\_\_\_\_
5. Datepalms are found near an oasis. \_\_\_\_\_

D. Match the following :

Column 'A'

1. Udaipur
2. Mount Abu
3. Pushkar
4. Jaipur
5. Nomads

Column 'B'

- (a) Banjaras
- (b) Capital
- (c) Pilgrimage centre
- (d) Dilwara temples
- (e) City of lakes

E. Answer the following questions :

1. Describe the location of Rajasthan.
2. What is the life style of Rajasthani people ?
3. Why is camel called the 'ship of desert ?'
4. Describe the social life of people of Rajasthan.
5. Name some famous places of Rajasthan.



► Look at the pictures and name them :



# Life in the Plateaus

Chap. **15**



After completing this chapter we will be able to know about :

- ◆ The states that lie in plateaus such as Madhya Pradesh, Chhattisgarh, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, the people of plateau region and their life style.



We know that the southern part of India is called **plateau** and a narrow strip from east through south to west is called the **coastal plains**. We shall be read about the life of the people in different states lie in the southern plateau.

The southern plateau region covers **Madhya Pradesh, Chhattisgarh, Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu, Kerala**, etc.

## Madhya Pradesh

As the name suggests, Madhya Pradesh is in the centre of our country. It is a landlocked state. Its boundary does not touch any seacoast. It is surrounded by the five states. The **Vindhyas** and the **Satpuras** are the two important hill ranges. The capital of Madhya Pradesh is **Bhopal**.

Madhya Pradesh is very rich in black soil. Cotton, sugarcane and oilseeds are grown here in abundance. Agriculture is the major occupation of the people. Wheat, *jowar* and mustard are also grown in plenty.

It is also one of the leading states in mineral production. **Automobile industry** at **Pithambore**, newsprint factory at **Neeranagar**, **Heavy Electricals** at **Bhopal** are some examples of the industries set up here. The city of **Panna** is famous for its diamond mines.

The people generally speak **Hindi** but many local dialects are also spoken here.

Traditionally men wear *dhoti-kurta* and women wear *saree*.

The famous **Khajuraho Temples** and the **Sanchi Stupa** are the main tourist attractions of Madhya Pradesh. The famous **Kanha** and **Bandhavgarh National Parks** are also located in Madhya Pradesh. The **Mandu Fort** and the **Gwalior Fort** are other major attractions of the state. **Indore** is the biggest city of Madhya Pradesh.



Khajuraho Temples



Mandu Fort



Sanchi Stupa

## Chhattisgarh

It was declared on 1 November, 2000. **Raipur** is its capital city. **Mahanadi** is the main river of this state. This state is rich in minerals. The minerals such as iron ores, limestone, bauxite, graphite, etc., are found in this state.

Chhattisgarh is also called the **Rice bowl of the country**. Bhilai Steel Plant, Bharat Aluminium Company (BALCO) Plant at Kobra are big factories. Mostly people are engaged in making *Bidis*. The **Caves of Kobra**, **Amarkantaka**, **Bhoramdev**, etc. are the main tourist places of Chhattisgarh.

## Maharashtra

The state of Maharashtra is located in south-west India. It is the second most populous and third largest state by area in India. It is also the richest state in India.



Maharashtra



Lonavla

**Mumbai**, the capital city of the state, is India's largest city and the financial and business capital of the country. **Marathi** is main language of Maharashtra. Mumbai houses the headquarters of almost all major banks, financial institutions, insurance companies and mutual funds in India. India's largest stock exchange **Bombay Stock Exchange** is also located in the city. After successes in the information technology in the neighbouring states, Maharashtra too has set up several software parks.

The plateau is composed of **black basalt soil**, rich in humus.

This soil is well suited for cultivating cotton, and hence is often called **black cotton soil**. **Jalgaon** district is the largest producer of **bananas** in India.

Maharashtra has several hill stations. Some of the popular hill stations are **Matheran**, **Lonavla**, **Khandala**, **Mahabaleshwar** and **Panchgani**.

The Maharashtrian men wear **dhoti**, **achkan** and **turban**. Women wear **saree** in their typical style. **Ganesh Chaturthi**, **Navratri** and **Diwali** are the main festivals in Maharashtra. **Tamasha**, a kind of dance-drama is very popular in the state.



Ganesh Chaturthi

## Karnataka

It is located at the western edge of Deccan plateau and to the south of Maharashtra.

**Krishna**, **Tungabhadra** and **Kaveri** are the major rivers that flow through this state. **Bengaluru** is the capital of Karnataka.

The main occupation of the people is farming. Jowar, ragi, cotton, coffee, sugarcane, nuts and spices are grown here. The thick forests of Karnataka yield forest products like bamboo, teakwood, rosewood, sandalwood, eucalyptus and white cedar. People also catch fish from the sea.

Bengaluru is a big industrial centre. It has many factories producing aeroplanes, watches, telephones, machinery. Recently computer industry has made Bengaluru its home.

Karnataka is also famous for **sericulture** and a lot of silk is produced here.

There are rich mineral deposits of iron ore, bauxite, manganese, gold, etc.

The main language spoken in Karnataka is **Kannada**. Tulu is a popular dialect used by people of the country. People here are fond of music and dance. **Yakshagana** is the traditional folk theatre of Karnataka. **Carnatic music** is popular throughout the country. **Idli**, **dosa** and **hittu** are the popular dishes here. Men wear **lungi** and **shirt** and women wear **saree** in their own style.

The main cities of Karnataka besides Bengaluru are **Hubli**, **Belgaum** and **Dharwar**.

**Mysore** is another important city of Karnataka. It has a lovely **Mysore Palace** and many beautiful gardens. The **Brindavan Garden** near Mysore is a tourist place.

**Mangalore** is a famous seaport of Karnataka. Due to sudden increase in IT industries in Bengaluru, it is now called the “**Silicon Valley of the East**.”



Mysore Palace



Mysore is famous for **silk** and **silk sarees**. It is also famous for **sandalwood items** and **incense sticks**.

The **Jog Falls** in Mysore are the highest waterfalls in India.

## Tamil Nadu

This state lies in the southernmost part of the Indian peninsula. The neighbouring states are Puducherry, Kerala, Karnataka and Andhra Pradesh. Its capital is **Chennai** (earlier known as Madras).

The main occupation of the people is farming. They grow rice, cotton, sugarcane and groundnut. Tea and coffee are grown in the Nilgiri hills. Industries like steel, fertilizers; etc. are located at Salem which has lignite mines.

Tamil Nadu is famous for handloom industry. The **Kanjeevaram silk sarees** are popular throughout India. **Tamil Nadu** is famous for temples and **gopurams** too. **Madurai**, **Tiruchirapalli** and **Kanchipuram** are famous temple towns.

**Bharatnatyam** is the most popular classical dance of the state. People mostly speak **Tamil** and **English**. **Pongal** is the most popular festival in Tamil Nadu.

**Rice**, **sambhar**, **rasam**, **idli**, **dosa** and **upma** are favourite dishes of the Tamil people.

The Nilgiri hills in Tamil Nadu are abode of several tribes and wildlife too.

## Andhra Pradesh

This state is the largest of all the southern states. The eastern part of Andhra Pradesh is the coastal plain along the Bay of Bengal. Towards the west of these plains, there are dry plateaus and hills known as **Eastern Ghats**. The **Krishna** and the **Godavari** are the major rivers flowing in the state. **Hyderabad** is the capital of Andhra Pradesh.

Main occupation of the people of Andhra Pradesh is farming. They grow rice, jawar, tobacco, chillies, ragi, groundnut, etc. Andhra Pradesh is the largest producer of tobacco in the world. **Rice** is the main food crop and the state is hence called the '**Rice Bowl of India**'.

The main industries in Andhra Pradesh are cement, cigarettes, tools, ship building, handlooms, textiles, paper, biscuits and sugar.



Kanchipuram



Bharatnatyam



Kuchipudi Dance

Telugu and Urdu languages are spoken widely here. Kuchipudi is the famous dance form and Pongal, Sankranti and Ugadi are the popular festivals celebrated here. Men wear dhoti and kurta while women wear saree. Spicy food is eaten here. People are fond of eating rice, idli, dosa, papad, curd and pickles.

The Charminar, Lumbini Park, Hi-tech city, NTR Park, Salarjung Museum, Golconda Fort, Qutubshabi's tombs are the places worth seeing in Hyderabad. Secunderabad is the twin city near Hyderabad.

Vijayawada, Warangal, Guntur, Nellore, Vishakhapatnam and Anantpur are other important cities of Andhra Pradesh. The temples at Tirupati, Srisailem, Kalahasti, Lepakshi and Simhachalam are popular pilgrim centres. Amravati and Nagarjuna Konda are famous centres of Buddhism.

Vishakhapatnam is the famous seaport which has a shipyard too.

Handicrafts like bidriware, nirmalaware, fine carvings on brass, copper and black iron are famous. Andhra Kalamkari art work on cloth is equally well known. The colors used in this work are from bark and leaves of the trees.

Hyderabadi Biryani is a delicacy of this state which is popular world wide.

**POINTS OF VIEW**

- Madhya Pradesh is in the central of India.
- The Khajuraho temples and Sanchi Stupa are the main tourist attraction of Madhya Pradesh.
- Mahanadi is the main river of Madhya Pradesh.
- Mumbai is the second most populous and third largest state by area in India.
- Karnataka is also famous for sericulture and a lot of silk product.



**Exercise**



A. Tick (✓) the correct option :

1. Chhattisgarh was declared on \_\_\_\_\_ .  
 (a) 13 November, 2000  (b) 15 November, 2000   
 (c) 1 November, 2000
2. Bhopal is the capital of \_\_\_\_\_ .  
 (a) Madhya Pradesh  (b) Maharashtra   
 (c) Chhattisgarh
3. Chhattisgarh is also called the \_\_\_\_\_ .  
 (a) fish bowl of the country  (b) wheat bowl of the country   
 (c) rice bowl of the country

4. Bengaluru is the capital of \_\_\_\_\_ .  
 (a) Maharashtra  (b) Karnataka   
 (c) Madhya Pradesh



**B. Fill in the blanks :**

- The southern part of India is called \_\_\_\_\_ .
- Chhattisgarh is the part of \_\_\_\_\_ .
- Mysore is famous for \_\_\_\_\_ .
- Sanchi Stupa is located in \_\_\_\_\_ .
- Raipur is the capital of \_\_\_\_\_ .

**C. Write 'True' or 'False' against each statement :**

- Bhopal is the capital of Chhattisgarh. \_\_\_\_\_
- Yakshagana is a famous dance of Karnataka. \_\_\_\_\_
- Jalgaon district is the largest producer of wheat in India. \_\_\_\_\_
- Chennai is the capital of Tamil Nadu. \_\_\_\_\_
- The Jog Falls in Mysore are the highest waterfalls in India. \_\_\_\_\_

**D. Answer the following questions :**

- Write a short note on Karnataka.
- Which are the centres of tourist interest in Hyderabad ?
- Name the famous industries of Tamil Nadu.
- What is the capital of Chhattisgarh ?



▶ **Mark the following on the outline map of India :**

- |   |                                    |
|---|------------------------------------|
| <input type="checkbox"/> Bengaluru      | <input type="checkbox"/> Raipur    |
| <input type="checkbox"/> Bhopal         | <input type="checkbox"/> Mumbai    |
| <input type="checkbox"/> Chennai        | <input type="checkbox"/> Jog Falls |
| <input type="checkbox"/> Vishakhapatnam | <input type="checkbox"/> Kolar     |
| <input type="checkbox"/> Madurai        |                                    |



# Life in the Coastal Plains and Island

Chap. **16**



After completing this chapter we will be able to know about:

- ◆ The people and their life style live in western coastal plains



Southern part of India is surrounded by sea on three sides. So, it is called the Indian Peninsula. This region is bounded by various hills called the **Western and the Eastern Ghats**. Between the Ghats and the sea, there are narrow coastal plains.

India's coastline is divided into two parts :

1. The Western Coastal Plains
2. The Eastern Coastal Plains

## Life in the Western Coastal Plains

The Western Coastal region of India includes the states of **Gujarat**, **Maharashtra** coast, **Goa**, **Karnataka coast**, **Kerala** and union territories of **Daman** and **Diu**, **Dadra** and **Nagar Haveli**.

**Gujarat** : It lies in the north-west corner of peninsular India.

**Gandhinagar** is the capital of Gujarat. Gujarat is divided into three distinct geographical areas- **Sourashtra**, **Rann of Kachchh** and **Mainland**.

Agriculture is the main occupation here. The main food crops grown here are *bajra*, *jowar*, rice and wheat. **Dairy farming** is an important industry in Gujarat. **Amul factory** is located in Anand in Gujarat.



Amul Factory

Gujarat is also a major salt producing state. Gujarati, Urdu, Marathi and Sindhi are the languages spoken by the people of Gujarat. They wear *dhoti-kurta* and a Gandhi cap. Garba and Dandiya dances of Gujarat are very famous. The favourite dishes here are dhokla, bhakri and Srikhand.

The historical Sabarmati Ashram of Gandhiji is also located here.

Bhavnagar and Surat are famous for diamond cutting industry. The Gir Forest Sanctuary is famous for Asiatic lions.

**Goa, Daman And Diu :** These were union Territories of India from 1962 to 1987. The union territory comprised the present day state of Goa and the two small coastal enclaves of Daman and Diu off the coast of Gujarat. Administratively, the territory was divided into three districts, Goa, Daman and Diu with the capital at Panaji. In 1987 Goa was granted statehood, and Daman and Diu was made a separate union territory. Panaji is the capital of Goa.



Devka Beach



Panaji

Goa is famous for its beautiful beaches. St. Xaviers Church and Mahalakshami Temple are other places of tourist interest. Devka Beach in Daman and Nagia Beach in Diu are the tourist places. The Carnival, a three day festival, is a mixture of eastern and western cultures.

The people of Goa speak Konkani and Marathi languages. Farming and fishing are the major occupations in Goa. Goa has rich deposits of iron ore.

**Karnataka :** The coasts of Karnataka have a rocky background. Manglore is an important manufacturing and trading centre, and a seaport too. The people speak Kannada here.

**Kerala :** This beautiful state is situated on the Malabar coast extending upto Kannyakumari. Its capital is Thiruvananthapuram.



Snake-boat Race

Along the sea coast, there are a number of saltwater lakes called lagoons which are connected by canals. They are very useful for fishermen. Rice is the main crop of Kerala. Coconut, rubber, cocoa, coffee and spices are growing in Kerala.

Malayalam is the language spoken in Kerala. The staple food of Kerala is rice and fish.



Kathakali Dance

Two important dances of Kerala are **Kathakali** and **Mohiniattam** which have themes associated with **Ramayana** and **Mahabharata**.

**Sabrimala** is a famous pilgrim centre which is the abode of Lord Ayyappa. **Kovalam beach** is an important tourist place. **Kochi** and **Kozhikode** are the major ports. **Snake-boat** races are a special attraction of Kerala.

### Lakshadweep Islands

It is the smallest union territory of India. It is a group of islands about 200 km to 300 km off the coast of Kerala. Out of the 36 islands, only ten are inhabited. **Kavaratti** island has the headquarters of Lakshadweep. People are mostly farmers. They grow coconut, palms and banana. Fishing is another major occupation. People speak **Malayalam** language. Lakshadweep island is also famous for tourism and are called “a **tourist paradise**”. **Kavaratti** is the capital of this union territory.

### Life in the Eastern Coastal Plains

The states which lie along the coast of Bay of Bengal are : **West Bengal**, **Tamil Nadu**, **Andhra Pradesh**, **Puducherry**, **Odisha** and **Andaman and Nicobar islands**.

**Odisha** : With its capital **Bhubaneswar** is located on the eastern coast of India, by the Bay of Bengal. Odisha is the **ninth** largest state by area in India, and the eleventh largest by population. **Oriya** is the official and most widely spoken language.

Odisha is home to the **Hirakud Dam**, the longest dam in the world. Odisha has several popular tourist destinations. **Puri**, with the **Jagannath temple** near the sea (famous for **Rath Yatra** or the **Car Festival**), and **Konark**, with the Sun Temple are visited by thousands of tourists every year.



Hirakud Dam

**Cuttack** is the main business centre and industrial city of Odisha. **Paradeep** is an important seaport.

Rice and jute are the main crops grown in Odisha. **Odissi** is a very popular dance form of this state.

**Tamil Nadu and Puducherry** : The Indian ocean, the Arabian Sea and the Bay of Bengal meet at Kanyakumari. The Kaveri river makes a delta here. Rice is the main crop of the region. Coconut is also grown. **Chennai** is the capital of Tamil Nadu. It is a big industrial city and a seaport too. The **Marina Beach** in Chennai is the longest beach in India. **Perambur**, near Chennai has a railway coach factory.



Marina Beach

Puducherry (earlier known as Pondicherry) is a Union Territory. It was a French colony before it was merged with India. It is famous for **Aurobindo Ashram**, **Mahabalipuram** and **Kanchipuram** are temple towns located on the coast. **Kanchipuram** is known for **Kanjeevaram silk sarees**. **Meenakshi Temple** is in Madurai. **Rameshwaram** also has many Temples. **Vivekanand Rock Memorial** near Kanyakumari is also a tourist attraction.

The people of Tamil Nadu speak **Tamil**, while those of Puducherry speak **Telugu**, **Tamil** and **French**.

**Andaman and Nicobar Islands** : These islands are located in the Bay of Bengal. It is a group of about 346 big and small islands.

On 1st November, 1956 these islands were constituted into a union territory of India. **Port Blair** is the capital of Andaman and Nicobar Islands.

Rice, maize, pineapple, coconut, rubber, etc. are the main products grown here. Fishing is another major occupation and a good source of income.

People from different parts of India live here. They speak different languages. Mostly people here speak **Bengali**, **Hindi**, **Nicobari**, **Telugu**, **Tamil** and **Malayalam**.

One of the most famous and historic monuments is the **Cellular Jail** in which many Indian freedom fighters were kept during the independence struggle. Before independence these islands were referred to as **Kala Pani**.

**POINTS OF VIEW**

- Southern part of India is surrounded by sea on three sides.
- Gandhinagar is the capital of Gujarat.
- Goa is famous for its beautiful beaches.
- Malayalam is the language spoken in Kerala.
- Odisha is situated on the eastern coast of India, by the Bay of Bengal.
- Chennai is the capital of Tamil Nadu.
- The Marina Beach in Chennai is the longest beach in India.



**Exercise**



A. Tick (✓) the correct option :

1. Amul factory is located in \_\_\_\_\_ .  
 (a) Kolkata  (b) Gandhinagar  (c) Chennai
2. The Cellular Jail is situated in \_\_\_\_\_ .  
 (a) Andaman and Nicobar  (b) Hyderabad  (c) Kanyakumari
3. The capital of Gujarat is \_\_\_\_\_ .  
 (a) Kochi  (b) Gandhinagar  (c) Chennai

4. Which of these is called 'a tourist paradise'?

(a) Mumbai



(b) Lakshadweep



(c) Goa



**B. Fill in the blanks :**

1. Rice and fish are the main food of \_\_\_\_\_ .
2. \_\_\_\_\_ has the highest literacy rate in India.
3. \_\_\_\_\_ is the capital of the Andaman and Nicobar Islands.
4. Panna is famous for \_\_\_\_\_ .
5. Kathakali is the dance form of \_\_\_\_\_ .

**C. Write 'True' or 'False' against each statement :**

1. Panaji is the capital of Goa. \_\_\_\_\_
2. Rice and fish are the main food of coastal people. \_\_\_\_\_
3. Raipur is the capital of Daman and Diu. \_\_\_\_\_
4. Maharashtra is also called the 'Rice bowl of India.' \_\_\_\_\_

**D. Answer the following questions :**

1. How is Indian coastline divided ?
2. What are lagoons ?
3. Why is Puri famous ?
4. Which region is called the 'rice bowl of India' ?
5. What are the main languages spoken in Puducherry ?
6. Name the two major group of islands with their capitals.



## ACTIVITY BAG

**A. Look at the pictures and write their name with states where they are located :**



**B. Locate the following on the outline map of India :**

- ▶ Panna
- ▶ Cellular Jail
- ▶ Kavaratti
- ▶ Mumbai
- ▶ Puducherry
- ▶ Gulf of Kachchh