



Environmental Studies

3

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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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Content

Unit 1 : Our Living World

- | | |
|---------------------------------|----|
| 1. Living and Non-Living Things | 5 |
| 2. Plant's Life | 11 |
| 3. Animals and Plants | 18 |

Unit 2 : Human Body and Their Needs

- | | |
|---------------------------|----|
| 4. Man-The Living Machine | 23 |
| 5. Housing and Clothing | 29 |

Unit 3 : Our Environment

- | | |
|---------------------------|----|
| 6. Air, Water and Weather | 37 |
|---------------------------|----|

Unit 4 : Our Country - India

- | | |
|------------------------|----|
| 7. The States of India | 44 |
| 8. India Physical | 49 |
| 9. Festivals of India | 54 |

Unit 5 : Moving Things and People

- | | |
|----------------------------|----|
| 10. Different Occupations | 61 |
| 11. Safety and Home | 67 |
| 12. Means of Transport | 71 |
| 13. Means of Communication | 76 |

Unit 6 : The Earth – A Unique Planet

- | | |
|---------------------------|----|
| 14. The Earth–Our Home | 81 |
| 15. Features of the Earth | 85 |

Unit 7 : Our Administration

- | | |
|--------------------------|----|
| 16. Local Administration | 95 |
|--------------------------|----|

Unit 8 : From The Cave to Village

- | | |
|------------------------|----|
| 17. The History of Man | 99 |
|------------------------|----|



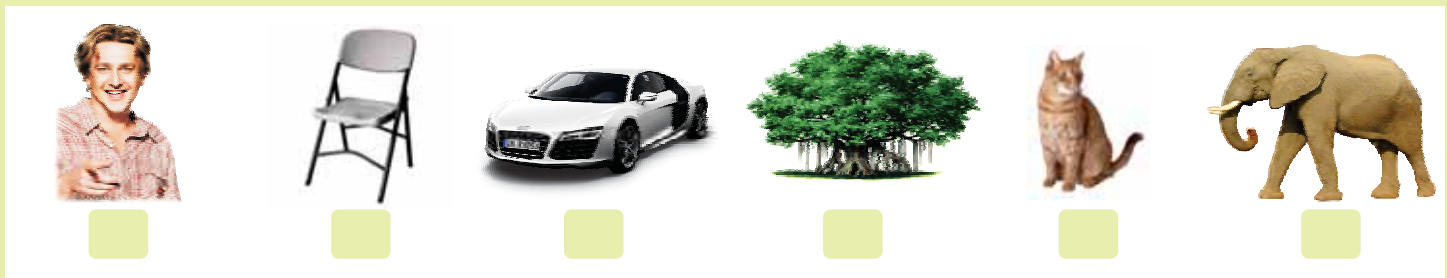
After completing this chapter we will be able to know about the :

- ♦ Characteristics of living and non-living things
- ♦ Differences between living and non-living things

This world is made up of many kinds of things. Some of them are living while others are non-living things.

All living things have life and they need air, food and water to stay alive. They grow, move by themselves and have bodies. Non-living things do not have life and they do not need air, food and water. They do not grow and die.

- ▶ Look at the pictures given below and write 'L' for Living and 'NL' for Non-living things.



Characteristics of Living and Non-living Things :

- 1. Living Things Move :** All living things show movement. They can move on their own. Animals and human beings move from one place to another in search of food, shelter and protection.



Animals walk with the help of their legs



Fish moves with the help of fins



Birds fly with the help of wings

Plants cannot move from one place to another but they show movement by some of their parts. The leaves of touch-me-not plant close when touched. The flowers of sunflower plant turn its face towards the Sun. Thus plants also



The sunflower turns towards the Sun.



Leaves of touch-me-not plant close when touched.

show movement. However non-living things do not move by itself, we have to move it. Therefore, we can say that only living things move on their own.

2. Living Things Grow : Living things have a life cycle. They grow using the energy, they get from food. Living things take birth, become adults, grow old and die.

A chick grows into a hen. A puppy grows into a dog. A seed grows into a sapling which grows into a plant and then into a tree. A baby grows into an adult man.



Puppy



Dog



Baby



Young Boy



Adult Man

Non-living things cannot grow. They do not grow big in size on their own.

3. Living Things Breathe : All living things need air to breathe. Human



Fish



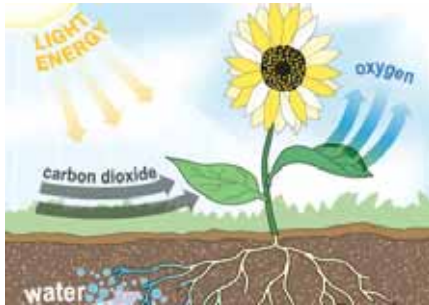
Human



Insect

beings and most of animals breathe through their nose and lungs. A fish breathe through gills. Insects breathe through tiny holes on their body. Plants breathe through stomata. Frogs breathe through both skin and lungs.

4. **Living Things Need Food** : All living things need food to grow and survive. Food gives energy to work and move. Animals get their food from plants or other animals. Some animals like goat, cow, deer, giraffe eat plants. Some animals like tiger, lions, jackals, etc., eat flesh of other animals. Some animals eat both plant and animals. Bear, human beings eat both plants and animals. Most plants can make their own food with the help of air, water and sunlight.



A green plant makes its own food



A baby eats food



A lion eats flesh of other animals

Non-living things like rock, chair, etc.; neither prepare food nor do they need it to live.

5. **Living Things are Sensitive** : All living things are sensitive to light, seasons and to living things around them. Most animals feel changes around themselves with their sense organs. These are skin, nose, eyes, ears and tongue.

When animals feel a change, they respond to it. When you feel cold you wear woollen clothes. A dog hangs out its tongue, when it feels hot and an elephant fans its ears to keep itself cool in summer. Some birds migrate from one place to another as a response to change in weather conditions. When insects see light, they fly towards it.



On the other hand non-living things do not respond to change in the surrounding because they cannot sense feel any changes.

6. **Living Things Reproduce** : All living things reproduce. They create

living things. Human beings and animals like dog, cow, elephant, deer, cat, etc.; give birth to their young ones. Birds, fish, insects, snakes and frogs lay eggs and the young ones hatch out from the eggs. Plants produce from seeds. Non-living things cannot reproduce.

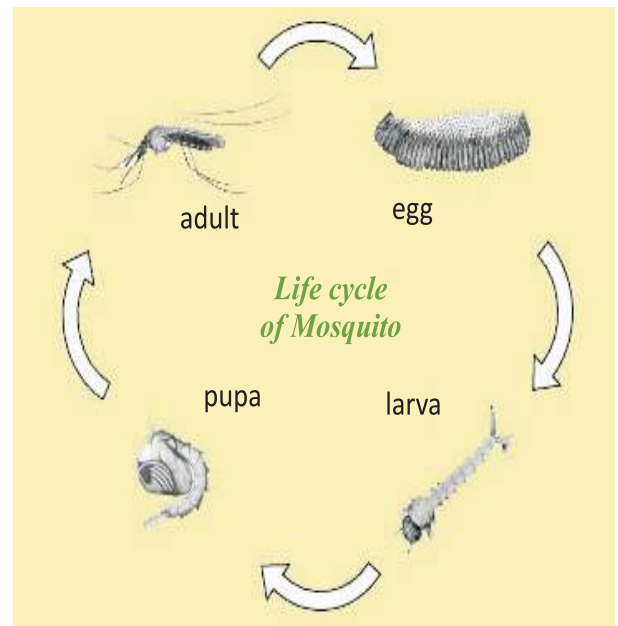


7. **Living Things Go Through A Life Cycle** : Living things born, grow up, reproduce and die. This is called a **life cycle**. All living things have a life cycle. Mosquito's eggs hatch into larva. The larva grows into pupa and finally into mosquito. Similarly plants also have a life cycle.

Some plants live for only one season while others live for many years.

This means different animals and plants have different life span.

Non-living things do not have a life cycle.



8. **Living Things Die** : All the things that are living die some day. It means living things have fixed life span. Things that have no life are called **dead things**. For example; wood is a dead thing.

POINTS OF VIEW

- All things can be divided two groups : living and non-living things.
- Living things need food, water and air to stay alive.
- Living things breathe, eat, grow, feel, reproduce and die.
- Plants, human beings and animals are living things.



- Living things go through a life cycle.
- Non-living things do not need food, water and air to stay alive.
- Non-living things do not grow and die.



Exercise



A. Tick (✓) the correct option :

1. Which of the following is a non-living thing ?
 (a) Plants (b) Animals (c) Wood
2. Which of the following is a natural thing ?
 (a) Star (b) Car (c) Bridge
3. Living things _____ .
 (a) move (b) grow (c) both (a) and (b)
4. Fish breathe through _____ .
 (a) lungs (b) gills (c) stomata
5. Insects have the _____ to breathe.
 (a) air holes (b) more (c) gills

B. Fill in the blanks :

1. Living things use _____ from the food they eat to work.
2. Animals move from one place to another in search of _____ .
3. Mosquito's eggs hatch into _____ .
4. Living things are _____ to light.
5. Plants breathe through tiny holes on their leaves are called _____ .
6. All living things need _____ to live.

C. Write True and or False statements :

1. All things are living things. _____
2. A puppy does not grow into a dog. _____
3. Plants do not need food. _____
4. Living things grow. _____
5. Living things die. _____
6. We breathe with the help of gills. _____
7. Birds fly with the help of their fins. _____

D. Match the following :

- | | |
|-----------------|--------------------------------|
| 1. Fish | (a) breathe through stomata. |
| 2. Plants | (b) gills to breathe. |
| 3. Touch-me-not | (c) wings to move. |
| 4. Birds | (d) leaves close when touched. |

E. Answer the following questions :

1. What are living and non-living things ?
2. Why do living things need food?
3. Which sense organ helps us in breathing?
4. Name any three features of living things.
5. What does a dog do when it feels hot?



ACTIVITY BAG

► Check out the different parts from which plants can reproduce.

Aim : To see reproduction in plants from different parts.

Method : Pierce an onion bulb with toothpicks and place it on a glass of water so that the end just touches the water as shown in the picture.
Observe what happens after a few days. Draw in the space provided.



If we want to know about a family we look at albums containing photographs and old letters, dairies and greeting cards. All these are **sources** of information about the family which enable us to know about history of the family. In the same way, the sources of history can be coins, clothes, books, monuments, seals, paintings, etc.

The Life of Early-man

The Historians consider the early-man was the man who lived on the Earth thousands of years ago. He had very difficult time. He was not aware of building, houses he took shelter under trees, rocks, or in caves. He had no understanding of fire, agriculture or taming animals. He was afraid of these animals. He lived as a food gatherer, hunted animals and ate raw flesh and nuts, berries and fruits of plants whenever he felt hungry. Life was challenging for him.



Early-man

Tools and Weapons : Early man needed tools and weapons to kill animals for their food. He used some sharp edged stones like knives, axe, etc. He also used sharp wooden sticks as tools. Later he learnt to tie the sharp stones to a wooden sticks. Thus he made a spear.

So, the man started his life as a food gatherer, passed on to the Stone Age. When he used tools made of stone. In between he learnt using fire. He saw fire breaking out in the forest. He was afraid of fire. He found that fire protected him from the cold as well as animals. So he learnt to make fire by rubbing two stones together. He started learning the uses of fire. The wise men say that one day perhaps suddenly a piece of raw flesh fell from his hand into the fire. When he took it out he found it very soft and tasty. He could now roast the animal flesh by placing it on fire. He protected him from cold.



Evolution of Early man's Life

Discovery of fire was a big incident in Early man's life. Thereafter he made many efforts to become a modern man. From food gatherer he grew over to agricultural farming, animal husbandry.

It was a perhaps women who noticed that some of the seeds fallen from ripe fruits on the ground grew into plants after some time. This gave early-man



an idea to scatter grains on the ground. The seeds grew into plants. Thus, man learnt about agriculture. This was the beginning of his settled life. He now needed to live near his farm land and a house to live in. Several families grouped together made clusters of houses and a village was formed. Man-made villages near the source of water, i.e, ponds and river bank. Besides it, he also tamed some animals. Dog was the first animal tamed by early man. Sheep and goats were tamed for wool and milk. Horses, camels, cows and buffaloes were also tamed. Settled life gave him some free time. He invented wheel that completing changed his life. He learnt to make pots of clay which were used to store food grains and for cooking food. Sometimes he had to visit nearby village. He had to carry heavy loads so he used animals to carry the load. Reling stones gave him the idea of rounding the things that he wanted to move. He made potter's wheel from clay. Early-man noticed some round pieces of tree trunks rolling easily. He fitted small pieces of trunks to his cart. These were first wheels. It made travelling on land easier and faster. The invention of wheel proved to be the most important event in the history of mankind. Today wheel is an essential part of every moving machine.

POINTS OF VIEW

- History is a subject which tells us about the past.
- People who study history are called historians.
- Early man lived to Earth thousands of years ago.
- Early man used tools and weapons, made from stones.
- Discovery of fire was a big incident in early man's life.
- Agriculture was the beginning of settled life of early man.



Exercise



A. Tick (✓) the correct options :

- History is the study of _____ .
(a) present (b) future (c) past
- People who study history are called :
(a) biologists (b) historians (c) scientists
- The first tamed animal was _____ .
(a) cow (b) horse (c) dog
- The first wheel was made of _____ .
(a) iron (b) wood (c) steel
- Early human settled near _____ .
(a) mountains (b) oceans (c) rivers

B. Fill in the blanks :

- _____ and _____ are sources of history.
- _____ life gave him free time.
- _____ was the first animal to be tamed.
- Roasted flesh was much _____ and _____ .
- Early-man lived in _____ .

C. Write True or False statements :

- Early-man led a very easy life. _____
- Early-man lived in buildings. _____
- Early-man was professional. _____
- At first, Early-man were afraid of fire. _____
- The first tools made by Early man was made of metal. _____

D. Answer the following questions :

- Where did early-man live?
- Why should we study history?
- Write the sources of history.
- What was the food of early-man?
- How was the fire useful for early-man?
- Write a short note on 'discovery of wheel'.



ACTIVITY BAG

- Visit a museum and see and study about the tools of early-man.
- Prepare a model of cart by using materials like straw, wire, cardboard, etc.

Test Paper-2

(Based on Chapters 9 to 16)

A. Tick (✓) correct option :

- _____ is known as the festival of colours.
(a) Diwali (b) Eid (c) Holi
- The main occupation of people in India is _____.
(a) mining (b) farming (c) fishing
- First aid should be given to an injured person _____.
(a) after on hour (b) when he/she is lift
(c) immediatly
- Which animal is known as the ship fo desert ?
(a) camel (b) zebra (c) Elephant
- The fastest means of communication is the _____.
(a) telephone (b) airmail (c) telegram
- A globe is a model of _____.
(a) Sun (b) Moon (c) Earth
- The highest peak of the world is _____.
(a) Mt. Everest (b) Kanchanjanga (c) K₂
- The word 'Panch' contains _____ members.
(a) four (b) six (c) five
- Sarpanch is the head of the _____.
(a) Court (b) Gram Panchayat (c) Municipal committee
- The first wheel was made of _____.
(a) iron (b) wood (c) steel

B. Fill in the blanks :

1. Onam is celebrated on _____ .
2. We should avoid crowding around on _____ person.
3. Water transport is slow but _____ .
4. _____ reach early in the morning.
5. _____ is model of the Earth.
6. Villagers select the _____ members.

C. Write 'True' or 'False' statements :

1. Independence Day is celebrated on 15th August every year. _____
2. Weaving is a cottage industry. _____
3. We should not play with sharp objects. _____
4. The Metro trains run in Kolkata and Delhi. _____
5. The moon is an artificial satellite of the Earth. _____
6. People give fax to the Panchayat. _____

D. Match the following :

- | | |
|----------------|-------------------------------|
| 1. Muslims | (a) sharp object |
| 2. Flies | (b) live programmes |
| 3. Knife | (c) The great desert of India |
| 4. Television | (d) Eid |
| 5. Thar Desert | (e) Spread disease |

E. Answer the following questions :

1. How is the Republic Day celebrated ?
2. What does a farmer need to grow crops ?
3. Why should accident take place ?
4. What is the importance of means of transport ?
5. What do you mean by communication ?
6. Why should we study history ?

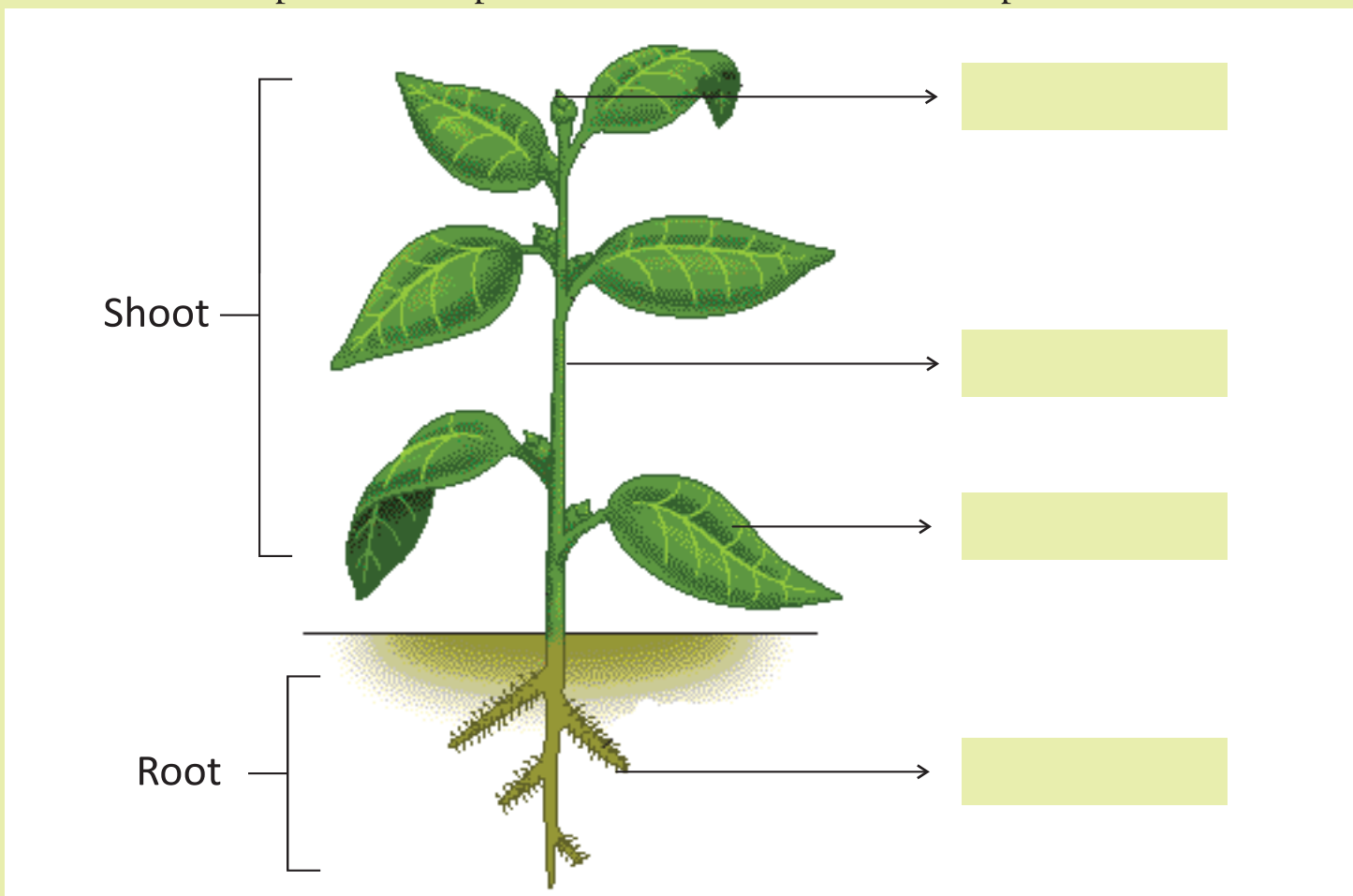


After completing this chapter we will be able to know about:

- ◆ Importance of plants
- ◆ Different kinds of plants
- ◆ The various parts of plants and their works

We see different kinds of plants around us. Some plants are big, while some are small. Some have branches, while some do not have branches at all. Their leaves, fruits and seeds are different. There are many differences in their appearance.

► Observe the picture of a plant and write the name of all parts in the boxes.



Parts of a Plant

Just as we have different body parts, a plant also has many parts. Each part has an important role to play.

The part of a plant which grows below the ground is called the **root**.

The part of a plant which grows above the ground is called the **shoot**. The shoot has stem, branches, leaves, buds, flowers and fruits.

Roots

Root is an important part of a plant. Roots are different shapes and sizes. Roots are of two types : tap root and fibrous root.

1. **Tap Roots** : The single main root that grow from the end of the stem of a plant is called **tap root**. Several thinner side roots grow from the main root. Plants such as balsam, hibiscus, bean and mustard, etc., have tap roots.



Tap Roots

2. **Fibrous Roots** : A number of small roots growing from the end of the stem are called **fibrous roots**. Plants like grass, wheat, rice and onion have fibrous roots.



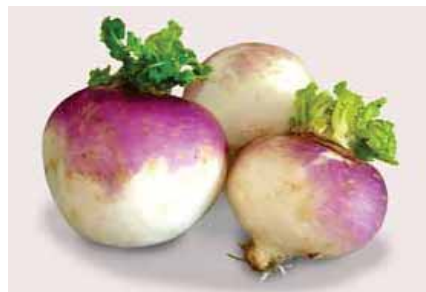
Fibrous root

Functions of the Roots

1. Roots fix the plant to the soil.
2. Plants need water and minerals from the soil. Roots take these and supply them up to the stem and leaves.
3. Some roots store food prepared by the plant. We eat roots of such plants like carrot, radish, turnip, etc.



Carrot



Turnip



Radish

Shoot

It is the part of the plant growing above the ground. It consists of the stem, branches, leaves, buds, flowers and fruits.

1. **Stem** : Plants have different kinds of stems. Some stems are soft and some are hard, woody and strong stems. These hard stems are called **trunk**.

Shrubs have thick stem and herbs have soft and thin stem. Some plants like moneyplant has a very weak stem which cannot hold the plant upright. Such plants need a support to climb up. They are known as **climbers**.



Trunk of Neem Tree

Functions of Stem

1. The stem gives support to the plant. It makes the plant upright and straight.
2. The stem carries water from the roots and food from the leaves to flowers and fruits.



Onion



Ginger



Potato

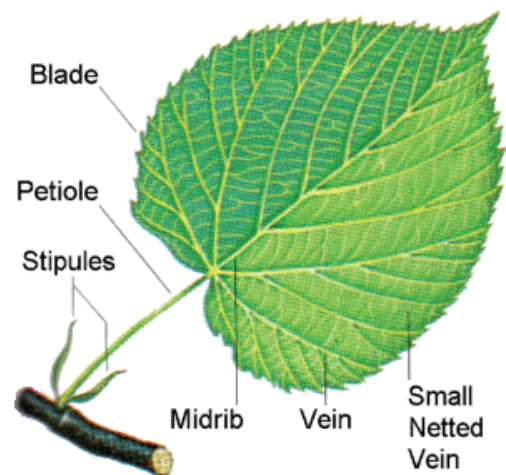


Sugarcane

3. Some plants store food in the stem. For example, sugarcane and potato. Such stems are called **tuber**.
4. Stem connects all the part of the plant with each other.

2. **Leaf** : The most important part of the plant is leaf. Most living plants have green leaves. A leaf has many parts. The flat and broad part of leaf is called the **leaf blade** or **lamina**.

A number of tiny channels in the form of lines runs all over a leaf. They are called **veins**. The line in the middle of the leaf is called the **main vein**. It carries water to whole leaf.



Leaf

A number of small openings called **stomata** are present on the surface of a leaf. They help in exchange of gases. Plants need food to grow

and live. A green leaf makes food for the plant with the help of air, water and sunlight. This process is called **photosynthesis**. This is why a leaf is called the **kitchen** or **food factory** of the plant.

Leaf differ in their shapes and sizes. For example, some plants like peepal has large leaves, while plant like gulmohar has small leaves.

Functions of Leaf

1. It prepares food for the plant.
2. It gives out a gas called **oxygen**. It is used by human beings and animals for breathing.
3. Some plants store food in their leaves.



Spinach



Cabbage



Lettuce

3. **Flower** : The flower is the most beautiful part of a plant. It grows on the stem. They differ greatly in their colour, shape and size. The brightly coloured part of flower is called **petal**. The green part that encloses the flower in the bud is called **sepal**. It protects the flower.

Knowledge Corner

- ◆ Leaf is green in colour due to presence of pigment, chlorophyll.

Functions of Flower

1. It turns into fruit in most of the plants.
2. It makes the plant look pretty and attractive.



Rose



Sunflower



Tulip



Jasmine

4. **Fruit** : A flower changes into a fruit. Fruit contains the seeds. Most fruits are edible and sweet. Some fruits like apple, mango and banana are also fleshy. The fruits of cotton and sunflower are dry.



A mango has one seed inside it



An apple has a few seeds inside it



A papaya has many seeds

Knowledge Corner

- ◆ Tomatoes, jackfruits and brinjals are fruits because they contain seed.

Functions of Fruit

- A fruit protects the seed.
- Fruits of most plant are edible.

5. **Seed** : It grows into new plants. Each seed has a baby plant inside it. Seeds need water, soil and sunshine to grow into a big and healthy plant. The first leaves that appear on the seed are called **seed leaves**, when seeds begin to grow, it is called **germination**.

Most Plants Grow into Fruits

Most new plants grow from seeds. Seeds are usually protected inside the fruit.

There is a baby plant and its food inside the seed of the mother plant. When the seed gets enough air, water and warmth the plant starts growing. It grows till it is a fully grown plant. Banana seeds do not grow into new plants.

POINTS OF VIEW

- A plant can be divided into two parts : the root and the shoot.
- Roots are of two types : tap root and fibrous root.
- Shoot bears stem, leaves, flowers and fruits.
- A flower changes into a fruit.
- Leaves are called the food factory of the plants.



Exercise

A. Tick (✓) the correct option :

1. How many parts of a plant does has?

(a) One <input type="checkbox"/>	(b) Two <input type="checkbox"/>	(c) Three <input type="checkbox"/>
----------------------------------	----------------------------------	------------------------------------
2. Which part of the plant grow above the ground?

(a) Root <input type="checkbox"/>	(b) Flower <input type="checkbox"/>	(c) None of them <input type="checkbox"/>
-----------------------------------	-------------------------------------	---
3. Which plant has hard and woody stem?

(a) Tree <input type="checkbox"/>	(b) Climber <input type="checkbox"/>	(c) Creeper <input type="checkbox"/>
-----------------------------------	--------------------------------------	--------------------------------------
4. Which is the most beautiful part of a plant?

(a) Fruit <input type="checkbox"/>	(b) Leaves <input type="checkbox"/>	(c) Flower <input type="checkbox"/>
------------------------------------	-------------------------------------	-------------------------------------
5. Which part of plant is called the 'food factory' of plant?

(a) Roots <input type="checkbox"/>	(b) Leaves <input type="checkbox"/>	(c) Flower <input type="checkbox"/>
------------------------------------	-------------------------------------	-------------------------------------
6. The line in the middle of the leaf is called _____.

(a) stomata <input type="checkbox"/>	(b) lamina <input type="checkbox"/>	(c) main vain <input type="checkbox"/>
--------------------------------------	-------------------------------------	--

B. Fill in the blanks :

1. Plants that grow along the ground are called _____ .
2. The part of a plant which grows above the ground is _____ .
3. Tall and strong plants are called _____ .
4. A _____ becomes a fruit.
5. A seed needs air, water and _____ to grow into a baby plant.

C. Write True or False statements :

1. Plants are non-living things. _____
2. Tubers are roots that store food. _____
3. Roots take in water from the soil. _____
4. Chlorophyll makes the leaf look green. _____
5. Germination is a process by which a seed becomes a seedling. _____

D. Name the following :

1. It fixes the plant in the soil. _____
2. It takes water from the root to the leaf. _____

3. It makes food for the plant.
4. It changes into a fruit.
5. It grows into a new plant.

E. Answer the following questions :

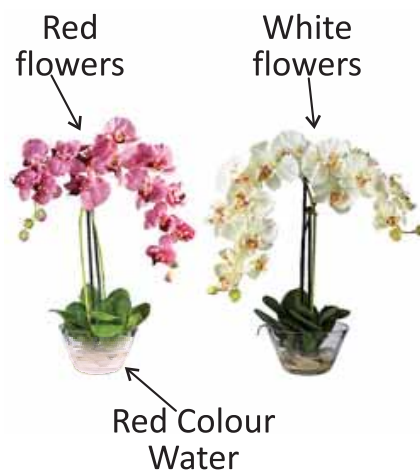
1. Draw and label the diagram of a plant.
2. What are the functions of root ?
3. Why the leaf is called the kitchen of the plant ?
4. What is photosynthesis ?
5. What are fibrous and top root ?
6. Give the functions of fruit and flower.
7. What is germination ?



ACTIVITY BAG

► Roots carry water to different parts of the Plants :

Take a branch with a white petunia or white rose. Dip this branch in a glass containing coloured water. Observe it after a few hours. What happens to the colour of the flower? Write your observation in your note-book.



Animals and Plants

Chap. 3



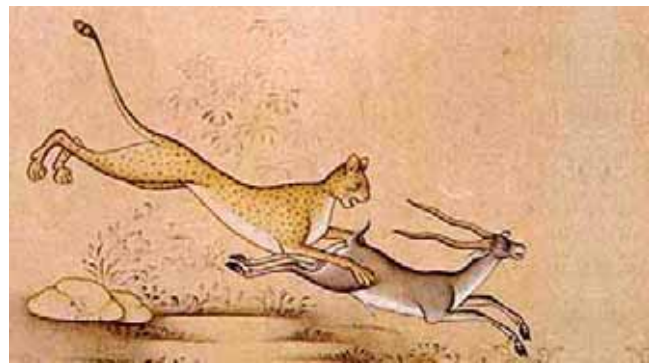
After completing this chapter we will be able to know about :

- ◆ The movement of animals
- ◆ The breathing of animals and plants
- ◆ The nutrition and reproduction of animals and plants
- ◆ The feeling and growth of animals and plants

Plants, animals and human beings show all the features of living things. They also show many differences between them in many ways.

Movement

Animals move from one place to another in search of food and protection. They show variety in their movements. For example; they can walk, glide, swim, fly and run. The movement of animals in search of food and shelter is called **locomotion**. Plants do not show locomotion, they remain fixed to the ground because they do not have to search for food or water. Only some parts of the plants show movement.



Animals Move in Searching of Food

Breathing

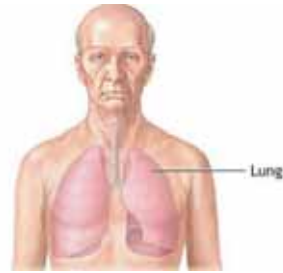
Animals breathe in air through different body parts. Animals like tigers, whales, monkeys, etc.; breathe through their lungs. Fish breathe through their gills, frog breathe through skin and lungs both. Insects like butterfly, cockroaches have tiny holes on their body's surface which help them to breathe. Plants breathe through small openings on their surface of leaves called **stomata**.



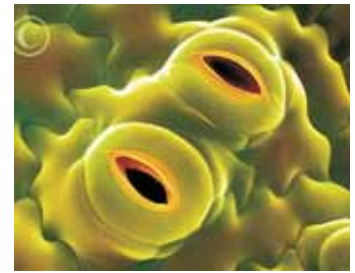
Holes in Insect



Gills



Lungs



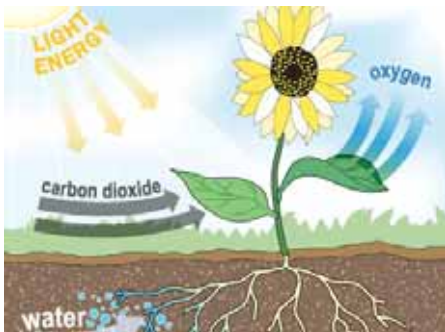
Stomata

Knowledge Corner

- ◆ Some plants like venus flytrap eats insects.

Nutrition

Animals cannot prepare their own food. They depend on plants for their food. Animals like cow, horse, goat, buffalo, deer, rabbit, etc. eat plants. Animals like lion, tiger, wolves, etc. eat these plant-eaters. However green plants make their own food with the help of air, water and sunlight. Only non-green plants like moulds and mushrooms get their food from dead and decaying matter.



Plants Make Their Own Food



Animals Depend on Plant and Flesh for Their Food

Reproduction

Animals produce their own kind by laying eggs or by giving birth to young ones. Some animals like cat, cow, dog, deer, give birth to their young ones. Some animals like bird and snakes lay eggs.

Most plants produce seeds when sown. These seeds give rise to new plants. There are some plants which grow from a part of the plant like root, stem. For example, rose plants grow from the stem of plant and turnip and carrot grow from the roots.



Animals Lay Eggs



Animals Give Birth to Young Ones



A Baby Plant Grows From a Seed

Response to Touch

Animals have sense organs like eyes, ears, nose, skin and tongue which help them to sense things around them. They use these organs to feel and respond to change in their surrounding. Plants are not sensitive to touch except some plants like touch-me-not plant.



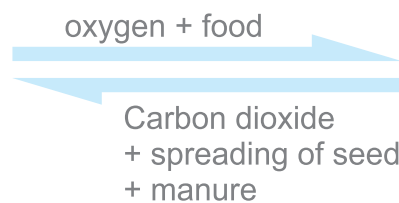
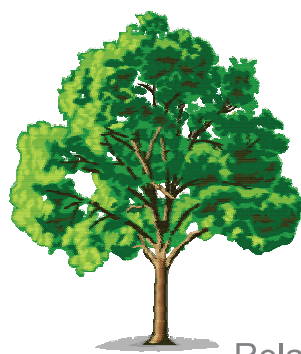
Touch-me-not Plant

Growth

Plants develop from seeds, parts, leaves or spores. Plants grow throughout their life while animal's growth takes place till a specific time, e.g. a kitten grows into a cat. Once it becomes a cat its growth stops. When it becomes old it dies.

Plants and Animals are Interdependent

Animals and plants depend on each other. Honeybees and butterfly take nectar from flowers and in return help a flower to turn into seed. This seed is thrown by us after we eat the fruit. When the conditions are favourable they become a new plant. Plants prepare their food with the help of carbon dioxide gas which is given out by animals while breathing.



Relationship Between Plants and Animals

Carbon dioxide is harmful for animals. Plants take in carbon dioxide and give out oxygen gas. Plants prepare their food by using carbon dioxide and animals use oxygen for their breathing. Without oxygen, all animals will die, hence plants and animals depend upon each other.

POINTS OF VIEW

- Animals and plants are different in many ways.
- Animals can move from one place to other but plants cannot move.
- Plants breathe through holes on their leaves surface and animals breathe through their lungs or gills.
- Plants can make their own food but animals cannot.
- Animals respond through their sense organs but most plants do not.
- Animals give birth to their young ones or lay eggs. A plant grows from seeds or other part of plant.



Exercise

A. Tick (✓) the correct option :

1. Green plants make their own food by using _____ .
 (a) air (b) sunlight (c) both (a) and (b)
2. Most plants breathe through tiny pores on their _____ .
 (a) roots (b) flowers (c) leaves
3. These animals lay eggs _____ .
 (a) dog and lion (b) cat and cow (c) mosquito and butterfly
4. Moulds and mushroom eat _____ .
 (a) plants (b) animals (c) dead material

B. Fill in the blanks :

1. _____ can make its own food in the presence of sunlight.
2. _____ are fixed at one place.
3. Most animals _____ to their surrounding.
4. Frogs breathe through their _____ and _____ .
5. Animals can walk, _____, _____ fly and _____.

C. Write True or False statements :

1. Plants can make their own food. _____
2. Frog breathe through stomata. _____
3. Insects give birth to their young ones. _____
4. Most plants grow from seeds. _____
5. Animals give out carbon dioxide while breathing. _____

D. Match the following :

1. Plant cannot make their food without this.
2. This animal breathe through its gills.
3. It grows from a seed.
4. Most plants breathe through these.



E. Answer the following questions :

1. What do you mean by locomotion?
2. Why do animals move from one place to another ?
3. Why plants are unique?
4. Mention three different ways of breathing in animals.
5. What are the things for which plants depend on animals ?



ACTIVITY BAG

- Plants and animals are interdependent. Show by a picture and colour it neatly.

Man-The Living Machine

Chap.

4



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

- ◆ The functions of human body
- ◆ Identify various organs of our body system and their functions

Our body is like a machine. Our body is made up of millions of cells. Cell is the smallest unit of our body. They can be seen with the help of microscope. These cells join together to form **tissues**. Similar tissues join together to form **organs**. Organs help us carry out our everyday activities.

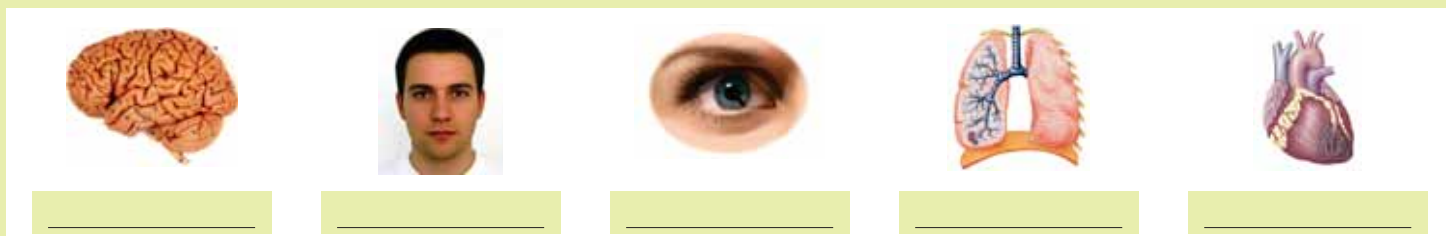
Some organs work together to do a similar kind of work. They form an **organ system**. All the organ system together make up an organism.



Organs of The Body

Our body is made up of several organs. Organs can be internal or external.

Look at the pictures of human body parts. Observe them and write they are **internal** or **external**.



1. **The Skeletal System** : All the bones of our body together make a skeleton. The skeleton gives shape and structure to our body. Without the skeleton our body would be like a mass of jelly. Our body contains 206 bones. Bones protect internal organs of the body. The skull protects the brain.

The rib cage protects the heart and the lungs. The backbone holds up the neck and head. It also joins all the bones of the body. Two or more bones join together to form a joint. Joints help in movements to keep our bones healthy and strong. We should drink a lot of milk it makes bones strong.

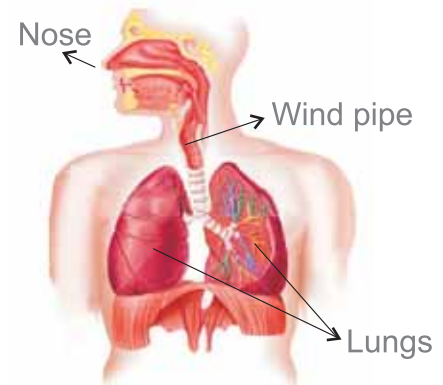
2. **The Muscular System** : It is made up of muscles which cover our entire body. Muscles are attached to the bones which help them move.



Human Muscular System

Muscles along with the bones help us in performing various activities. In order to move a body part, the muscles contract and relax. Some muscles move on their own. We cannot control them. The movement of other can be controlled. For example, the muscles that control the beating of the heart move on their own. But the muscles responsible for movement of hand move when we want to move them.

3. **The Respiratory System** : It deals with breathing is known as the **respiratory system**. The respiratory system consists of nose, wind pipe and the lungs. It helps us to take oxygen from the air and give out carbon dioxide. The air that we breathe in goes into our lungs through the wind pipe. The oxygen mixes with blood in the lungs and makes it oxygen rich. It brings back carbon di-oxide and throw it out. In the lungs oxygen of the air is absorbed and taken to all parts of the body to get energy from the food.



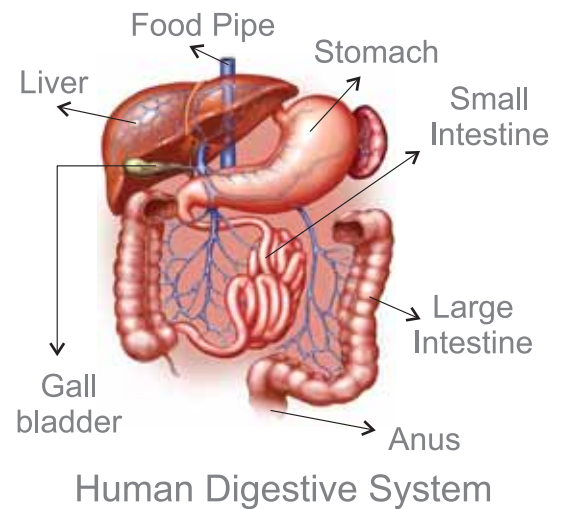
Human Respiratory System

4. **The Digestive System** : It deals with the digestion of food. The process of changing food material into simple form is called **digestion**. The various organs which together make this system are mouth, food pipe, stomach, small intestine, large intestine and anus.



Human Skeletal System

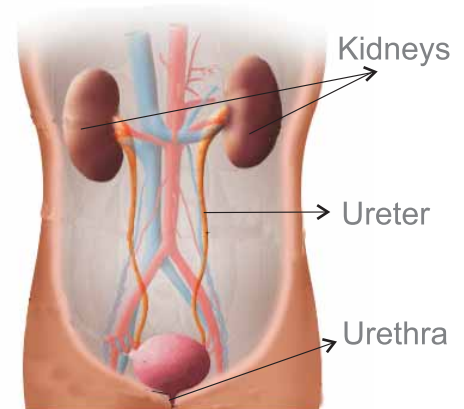
Digestion begins in the mouth. The food that we chew in our mouth mixes with saliva and become soft. Our teeth break up the softened food. It then enters the stomach where digestive juices help in digesting the food. It then enters the small intestine where food is further digested. Then it is transported to other parts of the body. The undigested food is pushed into the large intestine and then out of the body through the anus.



Knowledge Corner

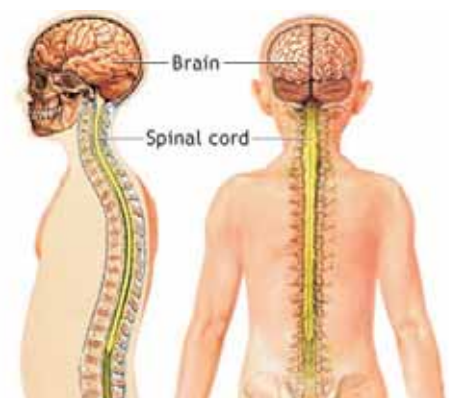
- ◆ Early-man covered their body with the skin of animals or barks of trees.

5. **The Excretory System** : The process of removal of all waste materials from the body is called **excretion**. Urine, sweat and carbon di-oxide are our body wastes. The kidneys are the main organs which help in removing waste in the form of urine. Forces are excreted from the intestine through the anus, carbon di-oxide through the lungs and sweat through the skin. Urine and sweat help to excrete excess water and salt from the body.



Human Excretory System

6. **The Nervous System** : It consists of the brain and nerves. The main function of the nervous system is to control all other systems of the body. It controls action like walking, seeing, listening, etc. The brain sends message to all parts of our body through nerves. Messages from all parts of our body come to the brain. Sense organs and spinal cord are also related to the nervous system. We can feel the cold, heat, pain, etc., due to our nervous system.



Human Nervous System

7. **The Circulatory System** : It is made up of the heart, veins and blood vessels. It helps various organs of the body to receive oxygen and nutrients through the blood and bring back the carbon di-oxide and waste materials. Blood is pumped from the heart and collected in the heart only.



Human Circulatory System

Knowledge Corner

- ◆ The human heart pumps over 13,640 litre of blood per day.

8. **The Reproductive System** : The reproductive system helps to produce young ones. Life on the Earth continues because of this system.

POINTS OF VIEW

- Cell is the smallest unit of human body.
- Cells together join in the form of tissues and tissues together join an organ.
- A group of organs work together and form an organ system.
- The skeletal system gives shape and protection to the body.
- Broken down of food into small pieces is called digestion.
- The respiratory system supplies the blood with oxygen throughout the body.



Exercise



A. Tick (✓) the correct option :

- The main organ of excretory system is _____ .
 (a) heart (b) kidneys (c) intestine
- Which part of body pumps blood to the different parts of the body?
 (a) Brain (b) Heart (c) Liver
- Which system gives shape and support to our body?
 (a) Skeletal system (b) Digestive system (c) Nervous system

4. The nervous system consists of brain, spinal cord and _____.

(a) bones

(b) nerves

(c) heart

5. Liver is the part of _____ system.

(a) excretory

(b) circulatory

(c) digestive

B. Fill in the blanks :

1. A group of cells together forms a _____.

2. Organs are combine to form _____.

3. The _____ give shape to the body.

4. Muscles are attached to the _____.

5. Rib cage protects the _____.

6. Blood is pumped from _____.

7. Nervous system consists of _____, _____ and _____.

C. Match the following :

1. Respiratory system

(a) heart, blood

2. Digestive system

(b) brain, nerves

3. Excretory system

(c) muscles

4. Nervous system

(d) stomach, intestines

5. Circulatory system

(e) blood vessels

D. Answer the following questions :

1. What is an organ ?

2. How does the skeletal system help our body?

3. What is the function of muscular system ?

4. What is digestion ?

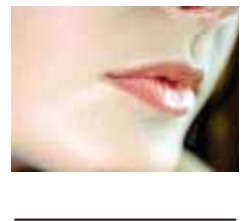
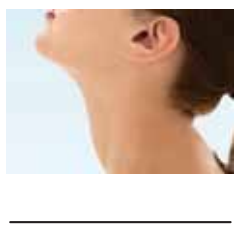
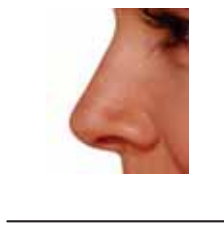
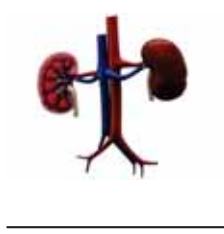
5. How does the brain help us seeing things?

6. What is the function of nervous system ?



ACTIVITY BAG

► Look at the pictures of parts of body search their name in given word search write their name below each picture :



A	D	E	A	R	S	K	I	N	P
C	K	I	D	N	E	Y	L	B	Q
T	H	R	O	A	T	T	L	R	R
M	U	S	C	L	T	U	M	A	E
F	L	P	C	N	O	S	E	I	Y
L	I	P	N	G	N	R	N	N	E
M	V	I	E	S	G	S	C	K	S
N	E	M	J	Y	U	T	J	L	O
O	R	T	K	L	E	F	S	P	H
Q	T	F	G	S	T	V	W	X	Z

Housing and Clothing

Chap. 5



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

- ◆ The different types of houses
- ◆ The features of a good house
- ◆ The ways that we keep our home clean and tidy
- ◆ Materials used to build a house
- ◆ The different types of clothes

We all need a house to live safely. Our house protects us from heat, cold, rain, storms, thieves and wild animals. People living in different regions and climates make different kinds of houses.

► Given below are the pictures of some houses. The related words are also given write the correct number in boxes :

1. Snow

2. Rains

3. Plains

4. Hills

5. Mud



Types of Houses

We see different types of houses around us. They differ in size, shape, location and construction materials. They can be divided into two major types: Permanent houses and Temporary houses.

1. **Permanent Houses** : Houses that are made of bricks, cement, iron, steel and concrete are called **permanent houses** or **pakka houses**. They are very strong and cannot be shifted from one place to another. These houses are able as they last for a long time. These houses are mostly found in towns and cities.



Bungalow



Single-storeyed House



Multi-storeyed Building

Permanent houses can further be divided into different types like single-storeyed house, bungalow and multi-storeyed building.

2. **Temporary Houses** : Houses that are made of wood, mud, straw, grass, bamboo and thatch or sticks are called **temporary** or **kuchcha houses**. They are neither strong nor long-lasting. The only advantage of kuchcha houses is that construction material, being natural is cheap and easily available. These houses can be easily seen in villages.



Hut

Knowledge Corner

- ◆ Huts made of mud and water are cool inside in summer.

Apart from kuchcha houses, there are some other temporary houses like caravan, tent, houseboat, igloo, stilt, etc.

- (i) **Caravan** : People who roam around from place to place are called **nomads**. They live in caravan. A caravan is a house of wheel. It is usually



Caravan

a big vehicle like a van. There is everything inside this van that a person or family need like bed, shelves, vessels, water, etc. Gypsies and people who work in the circus usually live in caravan.

- (ii) **Tent** : It is a house that is made of canvas. It can be folded and carried along easily. NCC cadets, campers, nomads, soldiers and construction workers use the types of these houses.



Tent

- (iii) **Houseboat** : Some people also make houses on boats. These are called **houseboats**. It is made of wood. It can move along a river or a lake.

In India, houseboats are commonly found in Kashmir and Kerala. They may have many rooms with all facilities.



Houseboat

- (iv) **Igloo** : In ice-cold places like the Arctic, people cut blocks of ice to make houses called **igloos**. They have round or dome-shaped roofs. Usually Eskimos live in igloo.



Igloo

- (v) **Stilt** : House in places where it rain a lot, houses are made on poles called **stilt**. It is made on long pieces of wood or metal. Water cannot enter or wash away these houses as they are high above the ground.



Stilt House

Knowledge Corner

- ◆ Houses on mountains have sloping roofs so that snow and rain can slide down easily.

A Good and Clean House

A house may be big or small. It may be a hut or a bungalow. It may be single-storeyed or multi-storeyed. A good house should have some essential features :

- Every room should be airy and well lit. Sunlight keep the room dry and kills the germs that can make us sick. We should have proper windows in the house to let the sunlight come in.
- Doors and windows should have wire netting to keep mosquitoes and flies away. Iron grills protect from intruders.
- The air becomes dirty when we breathe. Windows allow the dirty air to go out and the clean air to come in.
- Plants clean the air. So we should grow plants around our houses.
- There should be some open space like a courtyard, verandah or balcony where children can play. They allow sunlight and fresh air into the house.
- There should be separate rooms for sleeping, welcoming guests, cooking, dinning, storing and washing.



Sunlight Entering Room



Planting

Ways to Keep A House Neat and Clean

- Every house should be neat and clean.
- Washbasins, toilets and bathrooms that breed germs and diseases must be washed and cleaned daily.
- Water should not be collect on the floors of the kitchen and bathroom.



Mopping floor

- Dustbins must be kept away from the place where we cook and eat. They should be covered and cleaned everyday.
- Garbage should not be thrown outside the house. If it is thrown in open places, flies and other insects breed and cause sickness. There should be closed dustbin for the garbage.
- A good house should have a proper drainage system to carry away the dirty water. Mosquitoes and flies breed in this water and spread diseases.
- Coolers should be dry when they not in use.
- We should have a fixed place for keeping things. This saves the time for searching things.

Clothing

Like a house, clothes protect us from changing weather conditions as cold, heat, rain, dust and insects.

To keep us ourselves comfortable, we wear different types of clothes depending upon the weather conditions of the place where we live. We also dress up according to the occasion or the place we go to. For example, we wear our school's uniform when we go to school, we wear loose and comfortable clothes when we are at home or picnic, we wear bright, colourful clothes when we go to a party.



Different Types of Clothes

Seasonal Clothes

We wear our clothes according to the climatic conditions. Different places of India have different types of climates.

Places like **Jammu** and **Kashmir**, **Himachal Pradesh** and other hilly areas face extreme cold conditions during most part of the year. Here, people wear thick woollen clothes to protect themselves from cold.

Places like **Delhi** and **Punjab** face different climates in summer, winter as well as rainy season. In these places people clothes according to the season. In summer, people wear cotton clothes to keep themselves cool. In winter, they wear woollen clothes. In rain, they wear raincoats and use umbrellas and gumboots to protect themselves from getting wet. Places like **Kerala**, **Tamil Nadu**, etc., experience hot and wet climate throughout the year. People living in these places wear light, comfortable and loose clothes.

Fibers

Clothes are made from **fibers**. Many fibers when twisted together make yarn. These yarns are used to make fabric. One or more fabrics are then stitched together to make a dress.

Fibers are of two kinds : Natural fibers and Man-made fibers. **Natural fibers** are obtained from plants and animals. Animal fibers include wool and silk that come from animal's hair, fur, etc. Plant fibers come from plants like cotton, jute, flax, etc.

Man-made Fibers are also called **synthetic fibers**. Nylon, terrycotton and polyester are man-made fibers.

POINTS OF VIEW

- All human beings need house and clothes.
- Houses are of different in size, shapes, location and construction materials.
- A caravan is a house of wheels. People who works in the circus usually live in caravan.
- A tent is a house that is made of canvas. NCC cadets, nomads, soldiers and construction workers live in these types of houses.
- Stilts are made of long pieces of wood or metal.
- Plants clean the air. So we should grow plants around our houses.
- Washbasins, toilets and bathrooms that bread germs and diseases must be washed and cleaned daily.





Exercise

A. Tick (✓) the correct option :

- Houses made of bricks, cement, iron, steel and cement are called _____ .
(a) permanent (b) temporary (c) special
- People in the Arctic live in _____ .
(a) igloos (b) caravans (c) houseboats
- Dirty water allows _____ to breed.
(a) mosquitoes (b) germs (c) flies
- Always throw garbage in a closed _____ .
(a) road (b) dustbin (c) bathroom
- It is not a man-made fibre _____ .
(a) nylon (b) cotton (c) polyester

B. Fill in the blanks :

- Permanent houses are mostly found in _____ and _____.
- People who roam around from place to place are called _____.
- Some people also make houses on _____.
- _____ may have many rooms with all facilities.
- _____ is made of long pieces of wood or metal.

C. Match the following :

- | | |
|--------------------|------------------------|
| 1. Caravan | (a) Kashmir and Kerala |
| 2. Tent | (b) blocks of ice |
| 3. Houseboat | (c) made of poles |
| 4. Igloo | (d) nylon |
| 5. Stilt | (e) house of wheels |
| 6. Natural fibers | (f) made of canvas |
| 7. Man-made fibers | (g) plants and animals |

D. Write True or False statements :

1. Our house protect us from the Sun, wind, rain and snow. _____
2. Tent cannot be folded and carried along easily. _____
3. Sunlight keep the room dry and kills the germs. _____
4. Garbage should not be thrown outside the houses. _____
5. We wear our clothes according to the climatic conditions. _____

E. Answer the following questions :

1. Why do we need a house ?
2. What are permanent and temporary houses ?
3. What are the features of a good house ?
4. What is stilt house? Where it is found ?
5. What should we do to look our house neat and tidy ?
6. Why do we need clothes?
7. What are fibers ? What are natural and man-made fibers ?



ACTIVITY BAG

- ▶ Go to a construction sight. Observe the different kinds of building materials. Make a chart which materials are used to build a house.

Air, Water and Weather

Chap.

6



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

- ◆ The importance of air
- ◆ Importance of water
- ◆ The weather
- ◆ Properties of air
- ◆ Three states of water
- ◆ What does air contain?
- ◆ The Water Cycle

Like food air and water are also basic need for all living beings. They cannot live without air and water. Air is present all around us. We cannot see the air but we can feel it when it blow.

Besides air, water is a precious liquid on the Earth. All living things need water for drinking, cleaning, bathing, cooking, etc. About $\frac{3}{4}$ part of the Earth is covered with water.

- ▶ Look at the pictures. Tick (✓) the picture that need air and water to grow.



Air

Air is all around us. We cannot see it. But we can feel the air when it move or blows. Moving air is called **wind**. Gently moving wind is called **breeze**. While fast moving wind is called **storm**.

Air moves in all directions and takes the shape of the container it fills.

When we blow air into a balloon the ballon gets filled with air.

Properties of Air

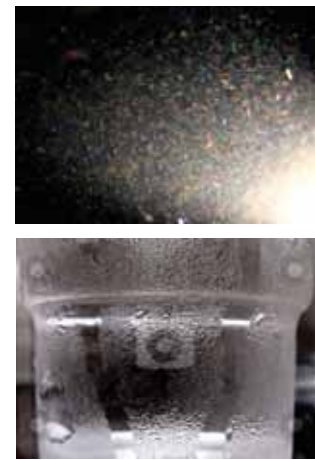
Air is a mixture of several gases. The main gases are oxygen, carbon dioxide and nitrogen. It also contains dust particles and water vapour.



Activity

Perform an activity to show that air contains water vapour.

Take out a bottle of cold water from the refrigerator and put it on a table for some time. Soon you will see tiny drops of water on the outer side of the bottle. These water drops are the condensed water vapour present in the air.



Uses of Air

- Air provides the gas that living things need for breathing. For example, animals take in oxygen and plants take in carbon dioxide from the air.
- Air helps birds to fly in the sky. It helps in the movement of aeroplanes, helicopters, gliders and flying kites.
- Wind helps to move sail boats and windmills.
- Air also dries our clothes faster.
- Cool air makes us comfortable during summer.
- Air is necessary for burning. Fire needs the oxygen present in the air to burn.

Knowledge Corner

- ◆ The speed of wind is measured by Beaufort scale.



We Need Clean and Fresh Air

The air in our surrounding is made impure by harmful gases and dust. Factories emit smoke. Motor vehicles burn fuels like petrol, diesel and emit harmful gases. This causes pollution to the air which makes environment unsafe to live.

When air becomes too dirty, it makes us sick with illness like cough, asthma and other diseases.

Knowledge Corner

- ◆ The first air balloon passengers were a cock, a duck and a sheep.



Water

All living things need water to survive. We use water for various purposes like drinking, washing, cleaning, bathing, etc.

Water is present in all the three forms in nature as ice on mountain, as water in river, oceans, lakes and as water vapour in air.



Knowledge Corner

- ◆ Snow is water droplets that have frozen into crystals of ice. If they get warm they melt and fall as rain.

States of Water

Water exist in three forms. Solid as ice, liquid as water and gas as water vapour. These forms can be changed into one another by heating or cooling.

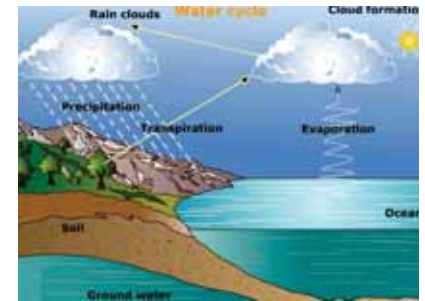
If water is heating for some time it changes into water vapour. The process of last conversion of a liquid to gas is called boiling. Boiling is different from evaporation. Boiling is a fast process while evaporation is a slow process.

Water vapour on cooling changes into water. This process is called **condensation**.

Hold a cool steel plate over boiling water. We can see the drop of water on the plate. Water vapour changes back to water when it touches the cool plate. Water on cooling changes into ice-cubes that is water on cooling changes into solid. This process is called **freezing**. When ice is heated it changes into liquid water. This is called **melting**.



Boiling



Evaporation



Freezing



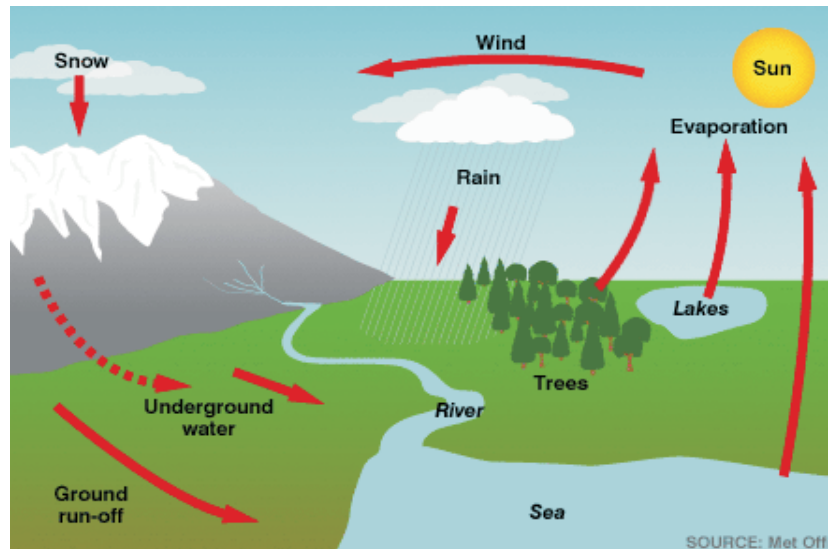
Melting

The Water Cycle

In nature water keeps on changing its forms continuously through evaporation and condensation.

Evaporation is a continuous process in the nature water in seas, rivers and lakes continuous evaporate from the heat of the Sun. It changes to water vapour.

As the water vapour rise up they cool and become tiny drops of water. These droplets collect around dust particles in air to form clouds. The tiny droplets of water in a cloud come together and join to form large water drops. When clouds become full and heavy, these droplets falls on the ground as rain. The rain water runs back into the rivers, seas, oceans etc. This process goes on continuously and is called the [water cycle](#).



Water Cycle

Weather

Weather is the condition of the air in environment of a particular place of time. The weather keeps changing almost everyday. Any talk about the weather refers to the Sun, the wind, the clouds and the rain. In some countries like India, there are three main seasons. These are winter, summer and monsoon. However even during one season, the weather changes from day-to-day and sometimes from hour to hour.

The Sun Affects The Weather

During morning and evening the Sun's rays are slanting because the Sun is low in the sky.

At noon, the Sun is overhead and the rays fall straight. Due to this noon is the hottest part of



Morning Time



Noon Time



Evening Time

the day. When people go out they use the shade of a tree.

In winter, we like the warmth of the Sun.

Wind Affects The Weather

A strong winds cause storm. Strong wind with lightning, thunder and heavy rain bring a storm. A very strong storm is a cyclone. A cyclone is violent and



uprooted the trees and get houses break down. It causes a lot of damage.

Clouds Affect The Weather

On cloudy days the clouds blocked the sunshine. Clouds also show signs of a storm. Cloudy days are not very hot but cloudy nights are warmer. This is because during the day the rays cannot reach us and during the night clouds do not allow the heat of the earth to escape into the atmosphere. Some clouds bring rain.



Clouds

Rain Affects The Weather



Drought

When it rains, the part of the Earth on which the rain falls becomes cool. Rain is good for crops.



Flood

However too much rain bring floods. They cause a lot of damage to crops, buildings and roads. They can carry away or drown animals and even human beings. Similarly, lack of rain over a long period of time result in drought. human beings, animals and plants start dying due to lack of water and food if drought lasts for too long.

Weather Affects Our Lives

What we eat, wear and enjoy? It is depend on the weather. Foggy and stormy weather can cause accidents. Travel, sports and outgoing become difficult in such weather.

Knowledge Corner

- ◆ Manosynram receives the maximum rainfall in the world.

POINTS OF VIEW

- We cannot see the air but we can feel it when it blows.
- Gentle moving wind is called breeze.
- Fast moving wind is called storm.
- Air provides the gas that living things need for breathing.
- Water exist in three forms, solid as ice, liquid as water and gas as water vapour.
- Weather is the condition of the air in the environment of a particular place of time.



Exercise



A. Tick (✓) the correct option :

- Air does not contain _____ .
(a) oxygen (b) carbon dioxide (c) hydrogen
- Moving air is called _____ .
(a) wind (b) breeze (c) storm
- Water exist in _____ forms.
(a) two (b) three (c) four
- Water on cooling changes into _____ .
(a) liquid (b) gas (c) solid
- Weather is the condition of _____ in environment of a particular place.
(a) water (b) heat (c) air

B. Fill in the blanks :

- Moving air is called _____ .
- Apart from gases, air also contains _____ and _____ .
- Animals breathe in _____ and breathe out _____ .

4. In nature water keeps on changing its form continuously through _____ and _____ .
5. During winter _____ dry air blows.
6. The change in seasons is the result of earth's _____ .

C. Write True or False statement :

1. Gentle moving wind is called breeze. _____
2. Fast moving wind is not called breeze. _____
3. A strong winds cause storm. _____
4. Cool air makes us comfortable during summer. _____
5. On cloudy days are not very hot but cloudy nights are warmer. _____

D. Match the following :

- | | |
|-----------------------|----------------------------|
| 1. The importance | (a) of water |
| 2. The water | (b) of water |
| 3. Importance | (c) of air |
| 4. Three states | (d) the warmth of the Sun. |
| 5. Properties | (e) of air. |
| 6. In winter, we like | (f) Cycle |



ACTIVITY BAG

- ▶ Take a handkerchief. Deep it in water. Hang it in the Sun. What happens to the handkerchief after sometime? Where did water go? Write your observation in the note-book :

The States of India

Chap. **7**



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

- ◆ Our country India
- ◆ States of India
- ◆ Central and state governments
- ◆ Union territories



We live in India. It is our motherland. India is a vast country. It is the seventh largest country of the world. It has a democratic government. Democracy means : “The government of the people, by the people and for the people”. The Central Government looks after the affairs of the country. Our country is divided into small parts. These parts are called the **states**. The State Government governs these states. Some parts which are governed by the Central Government are called **Union Territories**. **New Delhi** is the capital of our country.

States of India

The map of India shows the states and union territories. There are 29 states and 7 union territories in India. Every state also has a capital city. Every state has a State Government which is headed by the Chief Minister. Chief Minister has a Council of Ministers who govern the state.



The states of India are given below with their capital cities :

States	Capital Cities
1. Andhra Pradesh	Hyderabad
2. Arunachal Pradesh	Itanagar
3. Assam	Dispur
4. Bihar	Patna
5. Chhattisgarh	Raipur
6. Goa	Panaji
7. Gujarat	Gandhi nagar
8. Haryana	Chandigarh
9. Himachal Pradesh	Shimla
10. Jammu & Kashmir	Jammu (summer) Srinagar (winter)
11. Jharkhand	Ranchi
12. Karnataka	Bengaluru
13. Kerala	Thiruvananthapuram
14. Madhya Pradesh	Bhopal
15. Maharashtra	Mumbai
16. Manipur	Imphal
17. Meghalaya	Shillong
18. Mizoram	Aizawl
19. Nagaland	Kohima
20. Odisha	Bhubaneswar
21. Punjab	Chandigarh
22. Rajasthan	Jaipur
23. Sikkim	Gangtok
24. Tamil Nadu	Chennai
25. Tripura	Agartala
26. Uttarakhand	Dehradun
27. Uttar Pradesh	Lucknow
28. West Bengal	Kolkata

Union Territories

Union Territories

1. Andaman and Nicobar Islands
2. Chandigarh
3. Dadra and Nagar Haveli
4. Daman and Diu
5. Delhi
6. Lakshadweep
7. Pondicherry

Capital Cities

- Port Blair
Chandigarh
Silvassa
Daman
Delhi
Kavaratti
Pondicherry

The government at the central level is called **Central Government** and the government at the state level is called **State Government**.

Central Government

The offices of Central Government are in New Delhi, the capital of India. The President, the Prime Minister, other ministers and senior officers of the Central Government work and live in New Delhi.

State Government

Each and every state in the country has its own government to look after the people of the state.

The Governor and Chief Minister are the head posts of the State Government. Other ministers assist them for running the state government. The main offices of the state government are located in the capital of the state.

Each state and union territory is further subdivided into districts for the administrative purposes. The District Magistrate looks after the needs and problems of his district.

Knowledge Corner

- ◆ Around 180 Million people live in Uttar Pradesh which is about 17 per cent of country's total population.
- ◆ Rajasthan is the biggest and Goa is the smallest state in India according to their area wise.

The union territories are similar to states but they are directly looked after by the Central Government. The President appoints the Lieutenant Governor for each union territory to look after its affairs.

Uttar Pradesh is the most populous state of India. It has 70 districts which is the highest number of districts in any state of India.

Union Territories

Some parts of our country are directly under the control of the Central Government. These are called union territories. There are seven union territories in India.

Andaman and Nicobar Island is the biggest and Lakshadweep is the smallest union territory.

POINTS OF VIEW

- The Central Government looks after the affairs of the country.
- New Delhi is the capital of India.
- There are 29 states and 7 union territories in India.
- State Government is headed by the Chief Minister.
- The Governor and chief minister are the head posts of the state Government.



Exercise



A. Tick (✓) the correct option :

1. The smallest state in India is _____ .
(a) Madhya Pradesh (b) Goa (c) Rajasthan
2. The largest union territory is _____ .
(a) Andaman and Nicobar Islands (b) Delhi
(c) Lakshadweep

B. Fill in the blanks :

1. _____ is the smallest union territory.
2. _____ is the state with the largest population.
3. The President of India lives in _____.
4. India has _____ states and _____ union territories.
5. _____ is the capital of India.
6. State Government is headed by the _____ .
7. Andaman and Nicobar Island is the biggest and _____ is the smallest _____ .

C. Write True or False statements :

1. New Delhi is our motherland.
2. There are 28 states in our country.
3. Goa is a Union Territory.
4. Arunachal Pradesh is a state of India.
5. The Chief Minister is the head of the state.

D. Answer the following questions :

1. How many states are there in India ?
2. Which government looks after the union territories ?
3. Name the union territories of India.
4. Who headed of the state Government ?
5. What is the capital of India ?
6. How many state and union territories in India ?



ACTIVITY BAG

➔ Name the Governor and Chief Minister of your state.

Governor : _____

Chief Minister : _____

➔ Name the M.P and M.L. A. of your constituency.

MP _____

MLA _____

India-Physical

Chap.

8

Learning Points

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

- ◆ The physical structure of India
- ◆ The northern mountains and plains of India
- ◆ The great Indian desert
- ◆ The climate of India

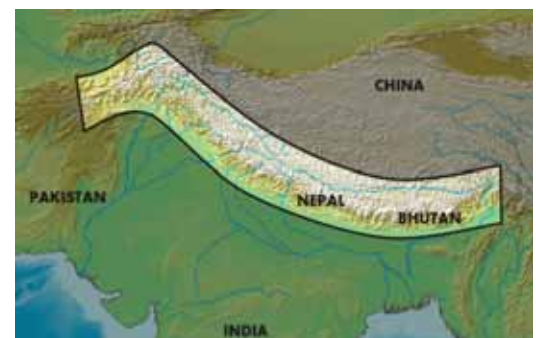
India is very big in size and the seventh largest country in the world area wise. It is about 3,200 kilometre from Kashmir to the north to Kanniyakumari in the south and about 3000, kilometre from Gujarat in the west to Arunachal Pradesh in the East. However, the land surface is not the same everywhere. It's surface has mainly hills, mountains, plains, deserts and plateaus. Based on these physical features. India can be divided into the following physical divisions.



Physical Division of India

The Northern Mountains : Very high landmasses having sloping sides and peaks are called mountains. Its top is called a peak. These can be seen in the Northern part of India. A chain of high mountains in the north is called the Himalayas, meaning the home of snow because this Himalayan ranges are always covered with snow. Mount Everest, the world's highest mountains height is 8848 metre.

Many great and holy rivers like the Ganga, the





Mount Everest

Yamuna and the Brahmaputra originate from the Himalaya. The Nilgiri Hills are situated in the southern part while the Satpura and Vindhya Ranges are in the central part of India.

The Northern Plains : Different parts of our country have flat and level land masses. These are called **plains** and found to the south of the Himalayas. They stretch from the west to the east. Many rivers which originate from Himalaya, flow through these plains. These rivers being fertile soil with them making the northern plains fertile. Thus farmers grow different types of crops like rice, wheat, maize, sugarcane etc. People build pucca houses in plains. Plains are also stretched in the east and western coasts of India. These coastal plains join at Kanyakumari, the southernmost part of India.



Plains



Rice crop

The Plateau : The southern part of India is a peninsula. A peninsula is a piece of land surrounded by water on three sides. Indian southern part is surrounded by the Bay of Bengal in the east, Arabian sea in the west and the Indian ocean in the south. So the southern part of India is also a plateau. The peninsular plateau is called **Southern Plateau** or **Deccan Plateau**. This area is also know for **its black soil** which is good for growing cotton.



Southern Plateau

The Coastal Plains : Apart from the northern plains, narrow strips of plains are also found along the east and west coast of India. They are called the **Eastern Coastal Plains** and **Western Coastal Plains**.



Island

The Islands : An inland is a **piece of land** surrounded by water on all sides. Some islands are a part of our country. The two island groups Lakshadweep in the Arabian sea and another Andaman and Nicobar in the Bay of Bengal are best known.

The Great Indian Desert : In the north western part of India the land is sandy. The area is very dry and hot. There is little or no rainfall, so no crops can be grown.

Cactus and Babul are the main plants. Such a dry, sandy and barren area is called a desert and **The Great Indian Desert** or **Thar Desert** is in the state of Rajasthan. **Camel** is the most important animal in desert. It is used for transportation and is called the **ship of the desert**.

Climate : Due to the different types of land surface the climate also varies in the country. On mountains, it is cold for most part of the year. In plains, it is hot in summers and cold in winters. In deserts it is very hot in summers and very cold in winters. There is moderate temperature in the coastal areas. There is variation of rainfalls in different places and different seasons.

POINTS OF VIEW

- India is the seventh largest country in the world area wise.
- A chain of high mountains in the north is called Himalayas.
- Mount Everest, the world's highest peak height is 8848 metre.
- Flat and level land masses are called plains.
- An island is a piece of land surrounded by water on all sides.



Exercise



A. Tick (✓) the correct option :

1. The type of soil found in the southern plateau is _____ .
 (a) red soil (b) black soil (c) loamy soil
2. The world's highest mountain peak is _____ .
 (a) Mt. Everest (b) Mt. K2 (c) Kanchenjanga
3. The Thar Desert is situated in the state of _____ .
 (a) Kerala (b) Gujarat (c) Rajasthan
4. The black soil is good for growing _____ crop.
 (a) maize (b) rice (c) cotton
5. Lakshadweep is a group of _____ .
 (a) landmasses (b) deserts (c) islands

B. Fill in the blanks :

1. India is the _____ largest country in the world.
2. Many great and holy rivers like _____, _____ and _____ originate in the Himalayan ranges.
3. _____ is the southern most part of India.
4. A _____ is a piece of land surrounded by water on three sides.

C. Name term :

1. A table-like land
2. A dry, sandy area
3. Large area of flat land
4. The home of snow
5. Land surrounded by water on all sides

D. Answer the following questions :

1. Name the six main physical divisions of India.
2. Which three rivers originate from the Himalayan ranges? Name them.
3. Differentiate between peninsula and islands.
4. Define plateau. Which part of India is a plateau?
5. Name the desert of India and also focus on its features?



ACTIVITY BAG

- Collect information and write the help of a map of physical India. Write down the landform found at the each of the following cities :

plain, mountain, desert, coast

- Chennai _____
- Kerala _____
- Delhi _____
- Jaisalmer _____
- Lucknow _____
- Sikkim _____
- Goa _____
- Ooty _____
- Jaipur _____
- Kashmir _____
- Bihar _____
- Agartala _____

Test Paper-1

(Based on Chapters 1 to 8)

A. Tick (✓) correct option :

1. Which of the following is a natural thing ?
(a) car (b) bridge (c) stars
2. Which part of the body pumps blood to different parts of body ?
(a) brain (b) heart (c) liver
3. Always throw garbage in a closed _____ .
(a) dustbin (b) road (c) bathroom
4. It is not a man-made fibre _____ .
(a) cotton (b) nylon (c) polyester
5. Air does not contain _____ .
(a) hydrogen (b) carbon dia oxide (c) oxygen
6. Which is the most beautiful part of a plant ?
(a) Sead (b) Fruit (c) Flower
7. Moulds and mushroom eat _____ .
(a) plant (b) dead materials (c) animals
8. The capital of Uttarakhand is _____ .
(a) Jaipur (b) Dehradun (c) Chennai
9. The world's highest mountain peak is _____ .
(a) Mt. Everest (b) Mt. K2 (c) Kanchenjanga
10. The black soil is good for growing _____ .
(a) maize (b) rice (c) cotton

B. Fill in the blanks :

1. Plants breathe through tiny holes on their leaves are called _____
2. Muscles are attached to the _____ .
3. During winter _____ dry air blows.
4. _____ are fixed at one place.
5. India is the _____ largest.
6. _____ is the southern most part of India.

C. Write 'True' or 'False' statements :

1. A puppy does not grow into a dog. _____
2. Tent cannot be folded and carried along easily. _____
3. Roots take in water in India. _____
4. There are 28 states in India. _____
5. India is the second largest country of the world. _____
6. State Government is headed by the chief Minister. _____

D. Match the following :

- | | |
|---------------------|---------------------------|
| 1. Fish | (a) Plants and animals |
| 2. Digestive system | (b) Maharashtra |
| 3. Natural fibres | (c) Very high land masses |
| 4. Mumbai | (d) Gills to breathe |
| 5. Mountain | (e) Stomach, intestine |

E. Answer the following questions :

1. What are living and non-living things ?
2. How does the brain help us to seeing things ?
3. What are the features of a good house ?
4. How does flood affect our life ?
5. What is gemination ?

Festivals of India

Chap.

9



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

- ♦ The importance of festivals
- ♦ The different types of festivals such as national, religious and harvest festivals



India is a vast country. It is famous for its unity in diversity in the world. People of many religions live together in India such as Hindus, Muslims, Sikhs, Christians, Jains, Buddhists, etc. All of them celebrate their festivals with great pomp and show. They celebrate their festivals simultaneously with great joys and pleasures. They decorate their homes, wear new clothes and exchange gifts.

Festivals are of three types :

1. National festivals
2. Religious festivals
3. Harvest festivals

1. **National Festivals** : The festivals which are celebrated by the whole nation together are called **national festivals**. There are three major national festivals.

(i) **Independence Day** : 15th August is celebrated as Independence Day. India became independent on 15th August, 1947.

On this day the Prime Minister hoists the national flag at the Red Fort in Delhi and addresses the nation. On this day we remember all those brave people who had sacrificed their lives fought for the freedom of our country.



Independence Day

Independence Day is celebrated in schools, colleges, government offices and by other private and public organisations.

(ii) **Republic Day** : India became a democratic republic on 26th January, 1950. We celebrate it as Republic Day every year.

The festival is marked by a special parade held in New Delhi at Rajpath.

The President of India takes the salute.

The armed forces of our country show their strength in this parade. There are several colorful tableaux of each state and union territory are shown in the Republic Day parade at Delhi.

Dances of various states are performed and hundreds of school children also participate. Children who have been awarded for acts of bravery are taken around on elephants in this parade.

Celebrations to mark Republic Day are held in all states and union territories of India. Children celebrate Republic Day by hoisting the National Flag in schools.



Republic Day

(iii) **Gandhi Jayanti** : It is celebrated on 2nd October every year. It is the birthday of Mahatma Gandhi. The main function is held at the samadhi of Mahatma Gandhi at Raj Ghat in New Delhi. The President, the Prime Minister and others offer prayers at the samadhi. Prayer meetings are held all over the country.



Gandhi Jayanti

Knowledge Corner

◆ The title 'Mahatma' to Mohandas Karamchand Gandhi was given by Rabindranath Tagore.

2. **Religious Festivals** : India is a land of many religions. So, we have many religious festivals that are celebrated with joy across the country.

(i) **Diwali** : It is called the **festival of lights**. Diwali or Deepawali, means a row of lights. Lakshmi, the Goddess of wealth, is worshipped on Diwali at night. Houses are decorated with earthen lamps, candles and lights. The winter sets in with Diwali. Children like to set off fireworks and crackers. It is said that on this day Lord Rama returned to Ayodhya after killing Ravana.



Diwali

(ii) **Dussehra** : This festival is celebrated as the day on which Lord Rama

killed Ravana. It is also known as **Vijaydashmi**, the victory of good over evil. It is celebrated by burning the effigies of Ravana, his son Meghnada and his brother Kumbhakarna.



Dussehra

- (iii) **Id-ul-Fitr** : It is main festival of the Muslims. People wear new clothes. They fast for a whole month during the month of *Ramzan*. They go to the mosque to offer *namaz* on this day. They greet one-another. Children play with joys and pleasures. **Id-ul-Zuha** and **Moharram** are other festivals of the Muslim community.



Id-ul-Fitr

- (iv) **Christmas Day** : It is celebrated as the birthday of Jesus Christ. It is celebrated on 25th December every year. Prayers are held in Churches. Gifts are exchanged. Beautifully decorated Christmas Trees are put up. Someone dresses up as Santa Claus and distributes sweets and gifts to children.



Christmas

- (v) **Gurupurva** : The Sikhs celebrate the birthdays of all their ten Gurus. These days are known as Gurupurva.



Gurupurva

Religious processions are taken out. People visit the Gurudwaras and offer prayers. *Langers* and *sharbat* or sweetened drinks are distributed at all Gurudwaras.

- (vi) **Durga Puja** : In West Bengal, Durga Puja is celebrated with great pomp and show. Goddess Durga is worshipped for three days. On the last day, the idols of Goddess Durga are immersed in a river or sea.

- (vii) **Buddha Purnima** : The birthday of Gautam Buddha is celebrated as Buddha Purnima.

- (viii) **Mahavir Jayanti** : The birthday of Lord Mahavir is celebrated as Mahavir Jayanti.

Knowledge Corner

- ◆ Jainism, Diwali marks the attainment of Moksha by Lord Mahavira in 527 BC.

3. **Harvest Festivals** : Harvest Festivals are celebrated when crops are ready for cut.

(i) **Holi** : It is the harvest festival of India. It is called the festival of colors. It is mainly celebrated in North India in the month of March, when the weather is neither hot nor cold. Men, women and children throw coloured powder called *gulal* and water on one another. At this time, wheat, gram, mustard, etc. are ready for harvesting.



Holi

(ii) **Baisakhi** : It is celebrated on 13th April every year. This festival is mainly celebrated in North India, particularly in Punjab and Himachal Pradesh. People in Bengal observe this day as New Year.



Baisakhi

(iii) **Bihu** : It is the harvest festival of Assam. Special Bihu dance is organised across the state. Young girls wearing typical Assamese clothes are seen dancing in many places.



Bihu



Pongal

(iv) **Pongal** : It is the harvest festival of Tamil Nadu. Celebration lasts for four days.

(v) **Onam** : It is a harvest festival of Kerala. It is celebrated in the honour of King Mahabali by the people of Kerala.



Onam

POINTS OF VIEW

- People of many religions celebrate their festivals with great pomp and show.
- Gandhi Jayanti is celebrated as birthday of Mahatma Gandhi.
- Independence Day, Republic Day, Gandhi Jayanti, etc. are the national festival of India.
- Diwali is the festival of lights.
- Holi, Baisakhi, Bihu, Pongal and Onam are the harvest festivals of India.



Exercise

A. Tick (✓) the correct option :

1. The National Flag is hoisted at the Red Fort on Independence Day by _____.
 (a) President (b) Chief Minister (c) Prime Minister
2. Gandhi Jayanti is the birthday of _____.
 (a) Jawaharlal Nehru (b) Indira Gandhi (c) Mahatma Gandhi
3. _____ is known as the festival of colors.
 (a) Diwali (b) Id (c) Holi
4. The main festival of Muslims is _____.
 (a) Id-ul-Fitr (b) Holi (c) Onam
5. Diwali is the festival of _____.
 (a) colour (b) India (c) light

B. Fill in the blanks :

1. Republic Day is celebrated on _____.
2. Onam is celebrated in _____.
3. _____ is called the festival of lights.
4. Pongal is celebrated in _____.
5. Christmas Day is celebrated as the birthday of _____.

C. Write True or False statements :

1. Diwali is the festival of colours. _____
2. Durga Puja is the most popular festival of West Bengal. _____
3. Independence Day is celebrated on 15th August every year. _____
4. Pongal is the harvest festival of Tamil Nadu. _____
5. Onam is a harvest festival of kerala. _____
6. Gandhi Jayanti is celebrate as birth day of Mahatma Gandhi. _____

D. Match the following :

Column 'A'

1. West Bengal
2. Muslims
3. Onam
4. Buddha Purnima

Column 'B'

- (a) Kerala
- (b) Buddhists
- (c) Id
- (d) Durga Puja

E. Answer the following questions :

1. Why is the Independence Day celebrated ?
2. How is the Republic Day celebrated ?
3. Why is Christmas celebrated ?
4. Name some festivals of Muslim community.
5. Which festival is called the festival of colours ?
6. Where is celebrated of Onam festival ?
7. When is celebrated of Id-ul-Fitr ?



ACTIVITY BAG

► Look at the pictures and write the name of the festivals they remind you :







Different Occupations

Chap. **10**



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

- ◆ different types of occupations
- ◆ rural occupations



To meet out our basic needs of food, clothes and a house, we have to earn money. For the purpose, all of us have to do some work when we grow up. Now, you understand that why your father or even mother work and go out everyday.

Occupation : Any work which we do to earn money is called an **occupation**. The occupation depends upon skills and needs we have. Some people are good at working as carpenters. Some people are skilled to work as farmers while some are labourers. We also have people working as doctors, nurses, teachers, engineers, soldiers, etc. Here we will study about a few occupations practised by the people of India.

In rural areas, farming, animal husbandry and fishing are the main occupations. In urban areas, computer related works, call centres, banking, textiles, information and technology, Multinational companies, National companies, hospitals, government sectors, etc. are main fields of attractions and they are functioning in cities and towns.

Urban Occupations : These occupations are not based on agriculture. Urban occupations provide services to the educated people. Some of the people run business too. Many people work in industries and offices.

Others sell things in shops in markets, supermarkets, malls and multiplexes. Some other urban occupations are those of doctors, engineers, teachers, actors, singers, dancers, soldiers, reporters, bankers, pilots, artists, lawyers, etc.



Doctor



Engineer



Reporter



Teacher



Lawyer



Office Worker



Pilot



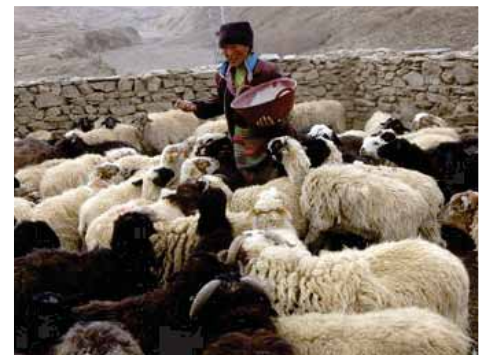
Actor

Rural Occupations

Farming : In India, farming is the main occupation of people of living in villages. They are called farmers. A farmer



Farming



Animal Husbandry

needs fertile soil and water to grow crops. A variety of crops like fruits, vegetables, foodgrains, oilseeds, sugarcane, cotton, jute, tea, coffee, pulses, spices, rubber and nuts are grown in our country.

Farmers also rear cattle for milk, meat and other purposes. The agricultural practice of breeding and raising livestock is called cattle rearing or animal husbandry.



Poultry Farming

Poultry farming is also the occupation of a large number of farmers in our country. They look after hens, ducks and geese on the poultry farms for eggs and chicken.

Fishing : People living in coastal areas earn money through fishing. Since India has a long coastline and the sea is full of a variety of fish. Many people living near to seacoast catch fish from the sea. Fish is not only sold for food in the local market, it is also salted, tinned and exported to other countries. Fish is also used to produce fish oil.



Fishing

Forestry : It is another occupation, mostly people work in forests and earn money. There live most of the tribals also. Their basic occupation is forestry. People living in forests collect different forest products such as rubber, honey, gum, latex, wood, etc. These materials are used in making of



Rubber Production



Wood logs



Furniture

other products like furniture, paper, rubber, glue, cardboard, matchboxes, erasers, tyres, etc. in factories.

Handicrafts : It is one of the main occupation of villagers. People make pottery, basket by weaving, glassware, jute material, etc.

Cottage Industries : Weaving is the art of making textile products like rugs, carpets, cloth etc. People do such work in community at their place with less material and equipments and machinery in very less investments.



Cottage Industry



Making Bags



Embroidry



Dyeing



Tailoring

It is collect cottage industries. It includes weaving, dyeing, designing, printing, embroidery, tailoring, etc.



Oil Minning



Coal Minning

Mining : People dig out rocks; bring out petroleum and minerals such as coal and iron from deep inside the Earth. This occupation is called mining. We get oil, petrol, diesel, iron, copper, aluminium, coal, gold, diamond, etc. from of mining and afterwards processes. Metals extracted from the minerates which are used for making all type of vehicles. Except all above there are many more occupations that people follow. Some people work in the film-industry. They make films and entertain people. Some do jobs in offices while some have their own business. Some people take up sports and a means of earning money. They are called sports persons.

POINTS OF VIEW

- Any work which we do to earn money is called an occuption.
- Farming animal husbandry and fishing are main occupations in rural areas.
- Forestry is another occupation, people mostly work in forests and earn money.
- Weaving is the art of making textile product like rugs, compets, cloth, etc.



Exercise

A. Tick (✓) the correct option :

1. The main occupation of people in India is _____ .
 (a) mining (b) farming (c) fishing
2. Animal hide (skin) is turned into leather in _____ .
 (a) refineries (b) granaries (c) tanneries
3. Fishing is the main occupation of people living in _____ .
 (a) cities (b) forests (c) coastal areas
4. Basket weaving is a type of _____ .
 (a) weaving (b) handicraft (c) designing
5. Mostly tribals work in _____ .
 (a) hills (b) offices (c) forests

B. Fill in the blanks :

1. The occupation depends upon _____ and _____ we have.
2. _____ occupation are not based on agriculture.
3. Many people work in _____ and _____ .
4. In India, _____ is the main occupation of people of living in villages.
5. Fish is also used to produce _____ .

C. Write True or False statements :

1. Oil is also extracted from fish. _____
2. Weaving is a cottage industry. _____
3. People dig rock at granery. _____
4. Mining is the main occupation of tribals. _____
5. Urban occupations mostly provides services. _____

D. Define the terms :

- (a) Occupation (b) Mining (c) Cottage industry

E. Answer the following questions :

1. Name the occupations in rural areas.
2. What does a farmer need to grow crops?
3. What do you mean by poultry farming?
4. List some uses of forest products.
5. What is mining?
6. Name any five occupations followed by people.



ACTIVITY BAG

► Name the occupations followed by the people in the pictures given below:



Safety and Home

Chap. 11



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

- ◆ The reasons why accidents take place
- ◆ Why we should follow safety rules?
- ◆ Some rules which help to prevent in accidents in our daily routine
- ◆ The first help given to an injured person

There are many things which are useful in life. But we also have to be careful while using them. Otherwise we hurt ourselves. Accidents happen all of a sudden.

There are some places where we spend most of our time. We should be careful in such places and try to keep ourselves safe.

► Look at the pictures. Tick (✓) the picture that show the correct safety rule :



Safety At Home

- Do not leave your toys, bags and shoes on the floor. You or someone could trip over them.
- Never run up and down on the stairs as you may fall down and get hurt.
- Do not take medicines without asking an adult.
- Do not play with sharp things like scissors, knives, blades, etc. You may hurt yourself.
- Keep away from the gas cylinder in the kitchen.



- ❑ Never go near the fire. Be careful while burning crackers, diyas, etc.
- ❑ Do not touch electric switches, plugs or gadgets with wet hands. You may get an electric shock.
- ❑ Do not play with plastic bags, bedsheet or pillowcases by pulling them over your head.

Safety At School

- ❑ Always keep your bags and bottles at the correct place.
- ❑ Do not climb on the desk.
- ❑ Do not hit each other.
- ❑ Use a sharpener to sharpen pencil.
- ❑ During lunch break, do not play with foil balls.
- ❑ Do not scatter pencil's peels or throw banana's peels on the floor.



Safety While Travelling by Bus

- ❑ Do not get into or get off a moving bus.
- ❑ Do not put out your hand or head out of the bus.
- ❑ Do not disturb the bus driver while he is driving.
- ❑ Always board the bus in a queue.

Safety on The Road

- ❑ Always cross the road at the zebra-crossing. If there is no zebra-crossing then cross the road by looking to your right, then to your left and then right side again. Cross the road when any vehicle is not coming.
- ❑ If you are in a vehicle then cross the road when signal is green.
- ❑ Always say to use helmet when your father driving a two wheeler.
- ❑ Use seat belt while sitting in a car.



Safety in The Playground

- ❑ Always follow the safety rules whichever game you play.
- ❑ Do not hit other with a bat, a ball or anything which can cause injury.
- ❑ Wait for your turn at the swing and everywhere.



First Aid Box

First Aid

Sometimes while playing in the park or at picnic, your fellow friends get injured. It is necessary to give first aid before the doctor arrives. The first help given to an injured person before arriving a doctor is called **First Aid**.

If someone gets hurt remember these things :

- Avoid crowding around an injured person.
- Do not panic, stay calm.
- Loose the person's clothing.
- Make the person feel comfortable.
- Clean the wound with an antiseptic.
- Tie the handkerchief or a cloth on the bleeding part.
- In case of an insect bite remove the sting by pressing both the sides of the wound with your fingers.
- In case of burns place some ice or chilled water on the burnt part.
- Call for help or for a doctor.
- We should keep first aid box handy.



Home

POINTS OF VIEW

- We must follow safety rules to avoid accidents.
- We must learn to give first aid to an injured person.
- We should cross the road at the zebra-crossing.
- The first help given to an injured person is called first aid.



Exercise



A. Tick (✓) the correct option :

1. While playing game we should _____ .
(a) follow its rules (b) hits each other
(c) leave when you lose
2. First aid should be given to an injured person _____ .
(a) after one hour (b) after when he/she is fit
(c) immediately

3. Covered dustbin keep away _____ .
(a) butterflies (b) flies (c) bees

B. Fill in the blanks :

1. Do not touch electric gadgets with _____ hands.
2. We should not get into or get off a _____ bus.
3. We should avoid crowding around a _____ person.
4. _____ should be covered.

C. Write True or False statements :

1. Accident can takes place anywhere. _____
2. We should not play with sharp objects. _____
3. We should always cross the road at the zebra-crossing. _____

D. Match the following :

- | | |
|--------------------|------------------------------|
| 1. Walk | (a) spread disease |
| 2. Knife | (b) carries dirty water away |
| 3. Open wire | (c) let the sunlight in |
| 4. Drainage system | (d) electric shock |
| 5. Flies | (e) sharp object |
| 6. Windows | (f) footpath |

E. Answer the following questions :

1. Why should accident take place ?
2. Why should we follow safety rules ?
3. What is first aid ?
4. What should do if someone gets badly hurt ?

 **ACTIVITY BAG**

► Given below are the pictures of certain things used for cleaning house. Write their uses :



Means of Transport

Chap. 12



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

- ◆ Importance of means of transport
- ◆ Different modes of transport
- ◆ Some other means of transport



Children, transportation is also important for us as the food, clothes shelter, etc. If we want to go anywhere or to meet our friends, relatives or to send any items to any other places, we need any mode of transport. We cannot get success at all in our daily life or in our business without the transportation.

We have different means of transport. These are bullock-carts, tractor, bus, car, scooter, train, aeroplane, ship, cycle, rickshaw, three-wheeler, etc. We use these means of transport according to distance where we have to go.

Modes of Transport

There are mainly three modes of transport :

1. Land Transport
2. Water Transport
3. Air Transport

1. **Land Transport** : The means of transport that run on the land are called the **means of land transport**. The means of land transport are of two types : (a) Roadways (b) Railways.

(a) **Roadways** : In India there are mainly two types of roads : Kuchcha roads and Pucca roads. Kuchcha roads are found in rural areas and Pucca roads are found in urban areas.

Road network in India is one of the largest network in the world. There are the National Highways, State Highways, Expressways, District roads and Village roads. They are an indispensable means of transportation and have come a long way. It is regarded as one of the most ideal and cost effective modes of transportation in India.

Buses, trucks, jeeps, cars, tongas and all types of animal-pulled carts are grouped under road transport. Buses are an important means of public transport in India, particularly in the countryside and remote areas where the rail network cannot be accessed and airline operations are few or non-existent.

Pucca roads have been laid throughout the country. The big roads between big cities and towns are called Highway. Different types of cars, buses, trucks, motorcycles and bicycles are manufactured in the country to fulfill our needs.



Bus



Truck



Car



Motorcycle

(b) **Railways** : Railways are very comfortable and fast mode of transportation. We use the railways to send our goods as machines, iron or etc., from one place to another. We also travel by railways to far off places. Railways are a cheap mode of transport. Both rich and poor people travel by the railways.

Knowledge Corner

- ◆ George Stephenson built the first Public Railway in Britain 1825.

Nowadays, India is proud to have the largest railway network in Asia. Metro trains run in Delhi and Kolkata.

2. **Water Transport** : The means of transport that soil on water are called the means of water transport. Our country is flanked by the Bay of Bengal, the Arabian Sea and the Indian Ocean. It therefore, has a long coastline. India is the proud owner of 12 major and 184 minor ports along this vast coastline. Some of the major ports are **Chennai, Cochin, Kandla, Kolkata, Mumbai and Vishakhapatnam.**



Train

Marine transportation in India is managed by the Shipping Corporation of India's Government-owned company. It also manages offshore and other marine transport infrastructure in the country.

The means of water transport includes boats, steamers and ships. They can sail only on water. They move with slower speed. Ships are normally used to transport people and goods from one country-to-another. India has a big shipping industry.

3. **Air Transport** : The means of transportation which are used to travel in the air is called **Air Transport.** It is the fastest mode of transport. Aeroplane carries people from one country to another in a short span of time. Air transport is not suitable for being expensive. All the people cannot afford to travel by air.



Ship



Boat



Steamer

Helicopter is a very important means of air transport. It can take off and land vertically in very little space. It does not need a long runway like an aeroplane. It can reach almost anywhere; even where any vehicle cannot. It is used to rescue people or take them to safe places from the flood and natural calamities.

Rope-ways are also used to travel in Haridwar, Mussoorie, Gulmarg, etc.



Aeroplane



Helicopter



Rope ways

Other Means of Transportation

Except the above means of transportation there are even other means of transportation in our country. In thick forests the elephants are used to carry heavy logs from one place to another. Mules and ponies are very useful in hills. In desert, camel is the only means for pulling the carts. The camel is called the ship of desert.

POINTS OF VIEW

- We cannot get success at all in our daily life or in our business without the transportation.
- Land, water and air transports are the main modes of transportation.
- Kuchcha roads are found in rural areas and pucca roads are found in urban areas.
- Railways are very comfortable and fast mode of transportation.
- Water transport is the cheapest means of transports.
- Air transport is the fastest mode of transportation.



Exercise



A. Tick (✓) the correct option :

1. Aeroplane is a means of _____ .
(a) land transport (b) air transport (c) water transport
2. Which animal is known as the ship of the desert ?
(a) Camel (b) Zebra (c) Elephant
3. Aeroplanes land and take off at _____ .
(a) airports (b) railway stations (c) seaports

B. Fill in the blanks :

1. _____ is called the ship of desert.
2. Air transport is the _____ for travelling.
3. Ships are used to travel across the seas and _____ .
4. Water transport is slow but _____ .
5. Boats and _____ are used to travel for short distances.

C. Answer the following questions :

1. What is the importance of means of transport?
2. What are the modes of land transport ?
3. What are the modes of water transport ?
4. What are the modes of air transport ?
5. Which are the other means of transportation ?



ACTIVITY BAG

- Find out the twelve means of transport from the given word grid :

H	E	L	I	C	O	P	T	E	R
S	T	E	A	M	E	R	R	Q	P
T	R	A	I	N	M	C	A	R	T
V	S	H	I	P	N	L	C	C	B
A	C	A	R	B	O	A	T	D	I
N	P	T	C	A	R	G	O	E	K
E	S	C	O	O	T	E	R	P	E
R	A	E	R	O	P	L	A	N	E

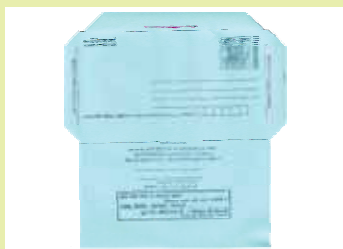
Means of Communication

Chap. 13



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

- ♦ The importance of communication
- ♦ Different modes of communication
- ♦ The mass media communication
- ♦ The satellite communication



Almost six thousand million people are living in this world. All are related to one-another commercially or individually. All need to communicate with each other. We communicate to share our feelings, ideas and information. We can communicate by speaking or writing. The process of talking, writing and understanding others messages is known as **communication**.

Communication is one of the most important activities in human life. Nowadays, different means of communication are used. These are three of types.

1. Personal Communication
2. Mass Media Communication
3. Satellite Communication

Personal or Individual Communication

When we talk or write and send a message through letter or telegram to another person, it is called **personal** or **individual communication**.

There are several means of personal communication.

1. **Postal Services** : Long, long ago, pigeons and horse-riders were used to carry letters and messages from one place to another. It was a time consuming activity. Now-a-days post offices render this job efficiently.

Writing letter is the most popular and the cheapest means of communication. We call letters, postcards, parcels and other things we send through the post as mail. Mail is transported by mail vans, trains, ships and aeroplanes. Urgent messages can be sent by telegram from a telegraph office. Money can be sent by a money order.

All major towns have speed post facilities. Almost all towns have courier services. The postal offices also provide telegram services to those places where facilities like telephone and internet are not available.



Post Card



Letter Box



Mail Van

2. **Telegraph** : In India, all major towns and cities have telegraph offices that provide good services. These telegraph offices are run by the government and provide good services at reasonable cost.

Most of these offices are open throughout the day and night.



Telegraph Machine

3. **Fax** : Except these means of communication, we have other personal communication device that works with the help of telephone it is called **Facsimile Machine** or **Fax Machine**. Most public telephone booths and stationery shops also have these services. They may cost a bit more than what the government offers.



Fax Machine

4. **Telephone or Mobile Phone** : Telephone or Mobile Phone is the fastest means of personal communication. We can establish immediate and direct link with our friends and relatives through a telephone or mobile.



Telephone

India has a highly developed network of telephone lines. Almost every road in India has one phone booth which offers public calls, STD and ISD calls.

5. **Internet** : Almost every urban household has access to high speed internet. Nowadays, internet has also reached in rural areas and people living at the grass roots level are learning how to communicate and move with the world. We can send and receive e-mails and surfe the net in those many “cybercafes” that have sprung up at every nook and corner in all cities. They offer Internet services at minimum cost.



Mobile Phone

We can send our messages through e-mail and written messages can be sent within a few seconds. We can get reply of our messages at the same time. We can also chat using computers. Video conferencing is also very common through Skype.



Computer

We are using social network sites as Facebook and LinkedIn to be in touch with our global friends.

Mass Media Communication

Sometimes we need to communicate with a large numbers of people at the same time. We can do so through **newspapers**, **radio** or **television**. These are called means of **mass media communication**.



Newspaper



Radio



Television

Satellite Communication

We know that the moon is the natural satellite of the Earth. Similarly, man-made objects that revolve around the Earth are known as **artificial satellites**. These artificial satellites are fitted with instruments that receive and relay the signals back to the Earth to receive by our television. Communication has become fast and easy by satellites.



Satellite

POINTS OF VIEW

- We communicate to share our feelings, ideas and information.
- Communication is one of the most important activities in human life.
- Writing letter is the most popular and the cheapest means of communication.
- Telephone or mobile phone is the fastest means of personal communication.
- We can send and receive e-mails through the internet.
- Newspaper, television and transistor are the means of mass media communication



Exercise



A. Tick (✓) the correct option :

1. The most popular means of communication is the _____ .
(a) post card (b) courier (c) telegram
2. The fastest means of communication is the _____ .
(a) telephone (b) fax (c) newspaper
3. If a message has to reach someone very quickly we send through the _____ .
(a) courier (b) airmail (c) telegram
4. Radio is an example of communication _____ .
(a) public (b) mass (c) satellite
5. Letters are the example of communication _____ .
(a) public (b) mass (c) satellite

B. Fill in the blanks :

1. Postcards and inland letters are purchased from _____ .
2. _____ are carried along with you anywhere when you go out.
3. _____ reach early in the morning.
4. _____ objects are known as artificial satellites.

C. Write True or False statements :

1. Radio is a means of mass media communication. _____
2. Telegram is a means of mass media communication. _____
3. Telephone is the quickest means of communication. _____
4. The moon is an artificial satellite of the Earth. _____

D. Match the following :

Column 'A'

1. Letter
2. Television
3. Telephone
4. Telegram

Column 'B'

- (a) urgent message
- (b) the quickest means of communication
- (c) live programmes
- (d) written message

E. Answer the following questions :

1. What do you understand by communication ?
2. Into how many kinds the communication is divided ?
3. What do you mean by the personal communication ?
4. What are the means of mass communication ?
5. What is an artificial satellite ?



ACTIVITY BAG

A. Collect the pictures of some important means of communication and paste them in your scrap-book.

B. Look at the following pictures and write their name :













The Earth-Our Home

Chap. 14



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

- ◆ To Earth-our home
- ◆ The globe and map
- ◆ Continents and oceans on the Earth
- ◆ Movement of the Earth



The Earth is our home planet because it is the only planet on which life is possible. It is one of the eight planets that moves around the Sun. However, scientists are trying to find the presence of life on other planets. The Earth is home to all living things : human beings, plants, animals, birds and others.

Life is possible on the Earth because of the presence of air and water.



These are the lifelines on the Earth. Without water and air, all living things would die. Appropriately 70% of the Earth's surface is covered with **water** and the rest of it is **land**. Also, there is a layer of air called the **atmosphere**, surrounding the Earth. It is made up of many gases. Oxygen is a very important gas which makes life possible. Living things cannot live without oxygen.



Ferdinand Magellan

The Earth is Round : In ancient times people were afraid of travelling far, for fear of falling off the edges as they did not know much about the Earth. In 1519, a Portuguese sailor **Ferdinand Magellan** started on a journey by ship from Spain along with other sailors. They went towards the west, sailing in the same direction for a long time. After travelling for about three years, their ships reached at the same place from where they had started in **Spain**. This meant that they had sailed around the Earth.



Thus, the journey showed that the Earth is round in shape. It is like a ball and not flat.

Pictures taken from the space have also proved that the Earth is round in shape.

The Earth is not the same all over. In some place there are high mountains, somewhere it has desert or there is plain land some where. We call the Earth **Blue Planet** also.



Earth's Photograph Taken from Space

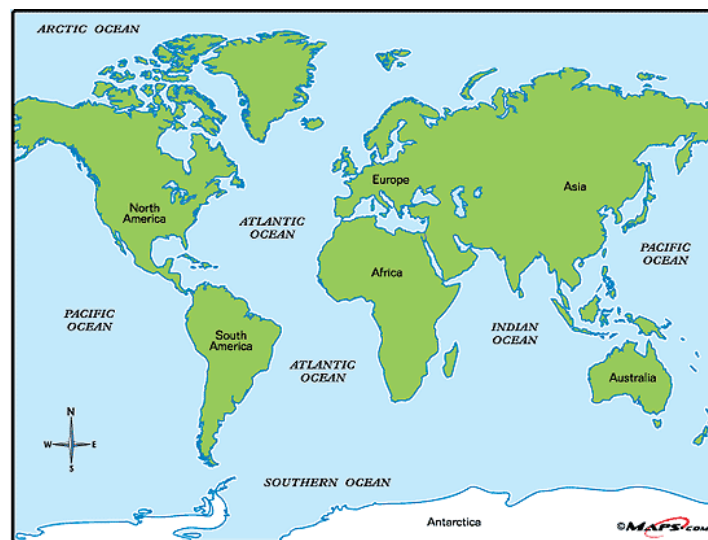
Globe and Map : As the Earth is very big in size and round in shape, we cannot see the land and water on the Earth at one time. We use a globe to study of the planet. The globe can rotate. There are outline markings of continents and oceans on the globe. **Continents** are the large masses of land and oceans are the large water bodies of on the Earth. We cannot carry a globe with us, and cannot even see the Earth as a whole. So, we use a map. We can carry a map everywhere and see the whole Earth or its part on it. A book of maps is called **Atlas**.

Continents : There are seven continents on the Earth :

1. Asia
2. Africa
3. Europe
4. Australia
5. North America
6. South America
7. Antarctica

Oceans : There are five oceans on the Earth :

1. The Pacific Ocean
2. The Indian Ocean
3. The Atlantic Ocean
4. The Arctic Ocean
5. The Southern Ocean



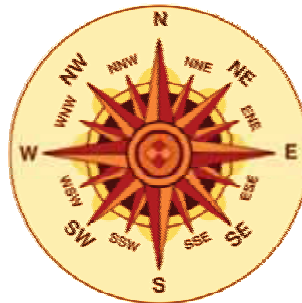
Continents and Oceans on the world map

Asia is the **largest** and Australia is the **smallest continent**.

Pacific Ocean is the largest as well as deepest, while the Arctic Ocean is the smallest ocean.

Directions : To find out or locate a place on the map we need to know about the direction of the place.

There are four **main directions**: North, South, East and West. There are four sub-directions too, i.e. North-east, North-west, South-east and South-west. The top of the map is north, the bottom is south, the left side is east and the right side is west. While sailing the sailors use **compass**. It is like a watch and has a needle that always points towards the north direction.



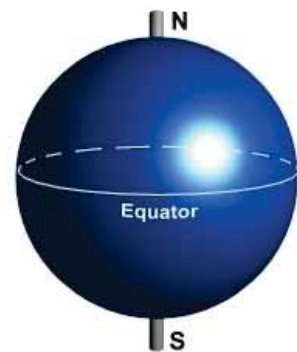
Compass



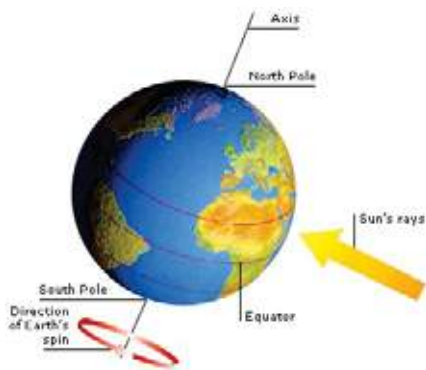
Direction on India's Map

Movement of the Earth :

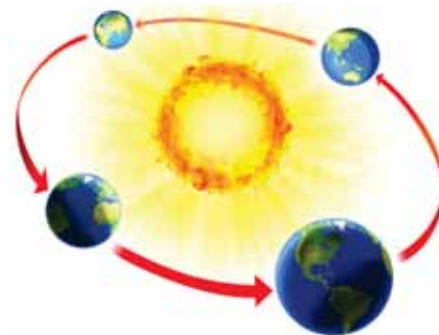
The Earth has two movements. It spins like a top on its axis from west to east on its axis. This is called **rotation**. It completes one rotation of about 24 hours, causes a day and night. The Earth also moves around the Sun at the same time. This movement is called revolution. It completes one revolution in about which $365\frac{1}{4}$ days called a year. The fixed path on which the planets move around the Sun is called **orbit**.



North and South Pole



Rotation



Revolution

POINTS OF VIEW

- The Earth is our home planet which moves around the sun.
- Life is possible on the Earth because of the presence of air and water.
- A Portugese sailor Ferdinand Magellan is proved that the Earth is round in shape.
- A book of maps is called the Atlas.
- Asia is a largest and Australia is smallest Continent of the world.
- The Earth has two rotation and revolution.



Exercise



A. Tick (✓) the correct option :

- The Earth is _____ in shape.
(a) flat (b) square (c) round
- A globe is a model of the _____.
(a) Sun (b) Moon (c) Earth
- The world's smallest continent is _____.
(a) Asia (b) Australia (c) Europe
- The world's largest ocean is _____.
(a) Atlantic (b) Indian (c) Pacific
- The _____ tells the directions.
(a) axis (b) orbit (c) compass

B. Give one word for each of the following :

- A book of maps _____
- The huge water bodies present on the Earth _____
- The Earth's spinning on its axis _____
- The Earth's movement around the Sun. _____
- Model of the Earth _____

C. Fill in the blanks.

- _____ sailed round the Earth.
- The Earth is _____ in shape.
- There is _____ and _____ on Earth's surface.
- There are _____ directions.
- _____ is model of the Earth.

D. Answer the following questions :

- Why do we call the Earth our home?
- Who proved that the Earth is round and how?
- How long does the Earth take to complete one rotation?
- What things do we find on the Earth's surface?
- What is a compass?



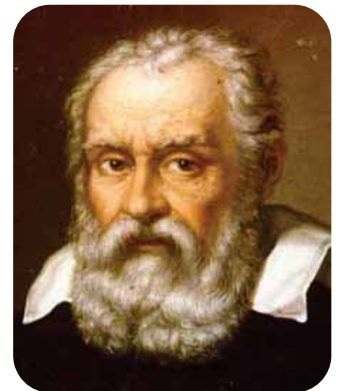
ACTIVITY BAG

- ▶ Label and colour on a world map with the name of the seven continents and the five oceans.



Shining Star

- ▶ Galileo Galilei was an astronomer. People in his time said that Earth is the centre of the Universe. Galileo supporter the view that the Sun is the centre of the Universe.



Galileo Galilei



Features of the Earth

Chap. **15**



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

- ◆ Importance of the Earth
- ◆ Major landforms of the Earth
- ◆ Climate of the Earth
- ◆ Waterbodies of the Earth



Dear students! We know that the Earth is our home planet. Life exists only on this planet. But it is not the same everywhere. It has many landforms. In some parts it is flat, while in other there are many mountains. Some of its parts are rocky while some are deserts. In this chapter we will study about the different features of land.

Landforms of the Earth

Children, do you know that the Earth consists of land and water? The Earth's surface is not the same everywhere. There are many types of lands on the Earth. Some parts of the land are flat and some others can be low or high. At some places the land is covered with snow, sand or forest, etc.

Landforms are natural physical features of the Earth's surface. Examples of landforms are **valleys**, **plateaus**, **mountains**, **plains**, **hills**, **loesses**, **deserts** or **glaciers**.

1. **Valleys** : A valley is a hollow or surface depression of the Earth bounded by hills or mountains that slope down to a stream, lake or the ocean, formed by water and or ice erosion.



Dehradun Valley

Systems of valleys extend through the plains, hills, and mountains. Rivers and streams flowing through valleys drain from interior land regions to the ocean. At the bottom of many valleys is fertile soil, which makes excellent farmland. Most valleys on dry land are formed by running water of streams and rivers.

Valleys are usually in U-shaped form. Narrow deep valleys are sometimes called **canyons**.

2. **Plateaus** : To the south of the great plain of northern India lies the extensive peninsular plateau. The peninsular plateau is made up of ancient igneous and metamorphic rocks. It is the oldest part of the Indian sub-continent. This plateau is divided by the Narmada river into two parts :

1. The Malwa Plateau
2. The Deccan Plateau

Some great rivers that flow in Deccan plateau are Narmada, Mahanadi, Godavari, Krishna and Cauvery, etc.

3. **Mountains** : You will also see that some parts of the land are much higher than its surrounding areas. Such a higher land is called a **mountain**.

The topmost part of the mountain is called its **Peak**. Some peaks of mountains are covered with snow. Most of mountains are covered with snow. Most of the rivers flow from the snow covered peaks.

Mountains occur more often in oceans than on land. Some islands are the peaks of mountains coming out of water.

Mountains are formed by volcanism erosion, and disturbances of uplift of the Earth's crust.

Examples of mountains formed by periodically dangerous volcanic action are **Mount Ranier** and **Mount Saint Helens** in United States, **Mount Erebus** in Antarctica, **Mount Vesuvius** in Italy and **Mount Fuji** in Japan.

Children, you will see a series of mountains joined together with each other. Such



Deccan Plateau

Knowledge Corner

Other plateaus are :

- ◆ The Colorado plateau of the United States.
- ◆ The Bolivian plateau in South America.
- ◆ Plateaus of Anatalia, Arabia, Iran and the Tibet region in China.



Mount Fuji

mountains are called mountain ranges. Some mountain ranges have gaps between them. Such gaps are called **Mountain Passes**.

These passes help us to cross the mountain range.

4. **Plains** : To the south of the Himalaya lies a large area of flat land called the **Northern Fertile Plains**. It is a vast stretch of level land extending from the west to the east. The northern plains of India are constituted by two large river basins. These are :



Northern Fertile Plains

1. The Indus River Basin
2. The Ganga-Brahmaputra Basin

Most of the population of India live in this area. India is the second largest populous country of the world after China.

5. **Hills** : A hill is also a higher part of land than its surrounding areas. But a hill is not as huge or high as a mountain. A number of hills joined together form a range of hills.



Mussoorie Hills

Hills are elevations of the Earth's surface that have distinct summits, but are lower in elevation than mountains. Hills may be formed by up debris or sand deposited by glaciers and wind. Hills may be created by **faults** and **erosion**.

The most famous hills in the world are the **Loess Hills**. The **Black Hills** are also famous.

Men also make hills by digging soil up and dumping it in a giant pile.

Volcanoes are also another way that hills are formed. Volcanoes form hills when they erupt.

The hills are usually covered with grass and trees. The weather on the hills is very pleasant. That is why people from the plains visit the hill stations during in summer holidays.

Knowledge Corner

Shimla, Mussoorie, Kulu, Ooty, Nainital, etc. are famous hill stations in India.

6. **Loesses** : A loess is a geologically recent deposit of silt or material which is usually yellowish or brown in colour and consists of tiny mineral particles brought by wind to the places where they now lie.

Loess is a type of silt which forms fertile topsoil in some parts of the world. Loess deposits are usually a few metres thick.

Loess was formed during the time after the Ice Age when glaciers covered a great portion of the Earth.

Top soil made up of loess is found in the centre and north-western parts of **United States** in central and **Eastern Europe**, and in **Eastern China**.



Loess

7. **Glaciers** : Ice-sheets and glaciers form the largest component of perennial ice on this planet. Over 75% of the world's fresh water is presently locked up in these frozen reservoirs.

A glacier is a huge mass of ice that flows slowly over land. They form in the cold polar regions and in high mountains. The low temperature in these places enable large amounts of snow to build up and turn into ice. Most glaciers range in thickness from about 91 to 3,000 metre.

The river *Ganga* rises from *Gangotri* and *Yamuna* rises from *Yamunotri* glaciers.

Huge moving sheets of ice are wearing down parts of the Earth's surface in **Antarctica** and **Greenland**. These ice-sheets are situated in Greenland, Antarctica and other frozen parts of North and South pole. The ice sheet that covers much of Greenland is growing smaller because of a gradual rise in temperature in the area since the early 1900s.



Pindari Glaciers



Desert

8. **Deserts** : A desert is a sandy part of land. It is very large area of land having very little water and very few plants growing on it. In the north western part of India is the **Indian Desert** or the **Thar Desert**.

The people here lead a difficult life. It is very hot and dry in the day-time during summer. However, the nights are quite pleasant and cool during winter. It rains little in the desert areas. There are very few plants and trees which grow here.

Knowledge Corner

The camel is the most important animal in the desert. It is also, known as the ship of the desert.

Climate of India

The presence of mountains, rivers, plains and forests leads to different climates in the different parts of India. In north India, the summers are very hot and dry and the winters are cold. The mountains have cold climate almost throughout the year. In coastal plains, it is neither very hot nor very cold.

Island : The land that is surrounded by water on all sides is called an **island**. There are many islands in the world. Some of these islands are a part of India. One group of islands is in the Bay of Bengal. These are called the **Andaman and Nicobar Islands**. There are 346 small and large islands in this group. The Lakshadweep Island is another group of island in the Arabian Sea. There are 36 islands in this group.



Port Blair (Andaman and Nicobar)

The Coastal Plains : These are narrow strips of plain land along the sea coast in the southern part of India. These lands are called the **coastal plains**. These plains meet at Kanyakumari in the south. The southern part of this plain is called the **Malabar coast** and the southern part of eastern coastal plain is called the **Coromandal coast**.

Indian Peninsula : Three sides of India are surrounded by water. So India is also called the Indian Peninsula. The Indian ocean is to the south of India and the Bay of Bengal is to its east and the Arabian Sea to its west.

Knowledge Corner

- ◆ Around 97% of water of the Earth is found in oceans and seas.
- ◆ The Pacific Ocean is the largest and the deepest of the Earth.

Waterbodies of the Earth

We have already know that almost three-fourth of the Earth surface is covered with water. Water is present in different forms on the Earth. These are called waterbodies. Some waterbodies are as follows :

Oceans : These are the biggest and the deepest waterbodies. They separate continents from one another. There are four oceans in the world. Atlantic Ocean, Pacific Ocean, Arctic Ocean and Indian Ocean.

Oceans are very useful for water transport. Big ships move from country-to-country through these oceans. Oceans are also the sources of various substances like salt, petroleum, etc.

Seas : Sea is also a big waterbody but it is smaller than the ocean. It is also used for transportation. Red Sea, Black Sea, Mediterranean Sea are a few examples.

Rivers : The flow of water from a mountain as a stream is called a **river**. Rivers provide us water for drinking and irrigation.

Lakes : A small waterbody surrounded by land on all sides is called the lake. The water of a lake may be salty or fresh.

Ponds : It is also a waterbody but it is smaller than a lake. The water of a pond is not suitable for drinking.

Canals : It is an artificial channel of water. It is constructed to take water from one area to another for drinking and irrigation or a flood control measure.



Pacific Ocean



Red Sea

Knowledge Corner

The largest river in the world is the Nile (Africa). The largest river in India is the river Ganga.



Panama Canal



Mississippi River



Laddakh Lake

Waterfalls : It is a place where flowing water rapidly drops from an elevation as it flows over a steep region or a cliff. Waterfalls are considered to be one of the most beautiful phenomena in nature. Some waterfalls are used to generate hydro-electric power.

Knowledge Corner

The Caspian sea is the largest salt water lake. The biggest fresh water lake is Lake Superior in the world.

POINTS OF VIEW

- Land for are natural physical features of the Earth's surface.
- Valleys are usually in U-shaped form.
- Peak is the top most part of the mountain.
- A hill is a higher part of land than its surrounding areas.
- Valcanoes are also another way that hills are formed.
- The river Ganga rises from Gangotri.
- A desert is a sandy part of land.
- Oceans are biggest and deepest waterbodies.



Exercise



A. Tick (✓) the correct option :

1. Andaman and Nicobar Islands are in the _____.
 (a) Arabian sea (b) Bay of Bengal (c) Indian ocean
2. The highest peak of the world is _____.
 (a) Mt. Everest (b) Kanchanjanga (c) K-2
3. Which is the most populated country in the world ?
 (a) Russia (b) China (c) India

B. Fill in the blanks :

1. The _____ ocean is to the south of India.
2. The _____ is divided by the Narmada river.
3. An _____ is a piece of land surrounded by water in all sides.
4. A sandy part of land is called a _____.

C. Write True or False statements :

1. The top of the plateau is flat. _____
2. Around three-fourth part of the Earth is covered with land. _____
3. An artificial stream of water is called sea. _____
4. A pond is a smaller waterbody than a lake. _____

D. Match the following :

Column 'A'

1. Mount Everest
2. The Ganga
3. Lakshadweep Island
4. Thar Desert
5. Malabar Coast

Column 'B'

- (a) situated in the Arabian sea.
- (b) highest peak.
- (c) Himalayan river.
- (d) Southern part of the coastal plain.
- (e) The great desert of India.

E. Answer the following questions :

1. Describe the landforms of the Earth.
2. Explain the waterbodies of the Earth.
3. What are mountains ?
4. What is the lake ?
5. Name the four oceans of the world ?
6. What is the valley ?
7. What are glaciers ?
8. From which glacier does the Ganga rise ?



ACTIVITY BAG

► Name the following :

1. I am the largest and deepest waterbody. _____
2. I am situated to the south of India. _____
3. I am the highest peak of the world. _____
4. I am the most populous country of the world. _____
5. I am the largest canal of the world. _____

> Make a model of a mountain.

Local Administration

Chap. 16



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

- ◆ The village panchayat
- ◆ The municipal committee
- ◆ Functions of village panchayat
- ◆ Functions of municipal committee

A large number of the Indian population live in villages. They live quite a different life with urbans. They have to face number of difficulties as they do not have all the facilities. Their basic needs like clean and healthy environment, clean drinking water, electricity, roads, education, health-care facilities, etc. have to be taken care of. As the government looks after all this but



it is quite difficult or even impossible for it to attend all the big or small needs of different regions. Therefore the administration of the regions is taken care by local self-governments. It consists of a group of people called the **Gram Panchayat**. The Gram Panchayat has **five** (panch) or more members.

Every village in India has a Gram Panchayat. All men and women above 18 years are **adults** and can vote to choose the members. The **Pradhan** is the head of the Gram Panchayat and at least one elected member should be a woman. The Panch settle the disputes and solve problems of the village. The Gram Panchayat works for the welfare of its people and the progress of the village.

Duties or Main Functions of Gram Panchayat

Some of the duties of the Gram Panchayat are as below :

- ❑ To provide clean drinking water.
- ❑ To maintain cleanliness in the village.
- ❑ To maintain village roads.
- ❑ Digging wells and tubewells.
- ❑ Lightning the village roads.
- ❑ Providing primary education to children.
- ❑ Conducting adult education programmes.
- ❑ Setting up health-care centers like dispensaries, mobile dispensary.
- ❑ To listen and solve the problems of villagers during the panchayat meeting.
- ❑ To settle disputes among villagers.
- ❑ To conduct community development programmes with the help of the villagers.



Municipal Committee

The Municipal Committee is the local body that takes care of the needs and problems of the people in cities and towns. The members of Municipality or Municipal Committee are called Municipal Councillors. A municipality is a local self government body for cities and towns which have a population of about 20,000 to 10 lakhs people. The head of the Municipal Committee is called the Chairman or President. He/She is chosen among the elected members. There may be 15 to 60 members in a municipality.



Nagar Nigam Office

In big cities like Delhi, Kolkata, Chennai, etc., the Municipal Committee are known as Municipal Corporations. The head of it, is called the Mayor.

Duties or Main Functions of Municipal Committee

Like the Gram Panchayat the Municipal Committee also performs several duties.

1. Keeping the city neat and clean.
2. Keeping the city green and pollution free.
3. Building and maintaining parks and gardens.
4. Arranging street lights and lights on roads.
5. Providing clean drinking water.
6. Setting up health-care centres.
7. Running primary schools.
8. Maintaining and building roads.
9. Providing local bus services.

To perform all these duties and functions well there is need of great amount of money. A part of the money comes from the people in the form of taxes, road tax, house tax, water tax, electricity tax etc. The State Government also gives funds and grants to Municipality Committee and Gram Panchayat to carry out their duties.

POINTS OF VIEW

- A large number of Indian population live in villages.
- Every village in India has a Gram Panchayat.
- The Pradhan is the head of Gram Panchayat.
- The Municipal Committee is the local body that takes care of the needs and problems of the people in cities and towns.
- Chairman or President is the head of Municipal Committee.



Exercise



A. Tick (✓) the correct option :

1. Sarpanch is the head of the _____ .

(a) Court

(b) Gram Panchayat

(c) Municipal Committee

2. The head of the Municipal Committee is called the _____ .

(a) Mayor

(b) President

(c) Pradhan

3. The word 'Panch' contains _____ members.
 (a) four (b) six (c) five
4. The Municipal Committee takes care of the needs of the people live in _____.
 (a) villages (b) forests (c) cities

B. Write 'True' or 'False' statements :

1. There must be atleast one man in a panchayat. _____
2. Sarpanch is the head of Municipal Committee. _____
3. People give tax to the Panchayat. _____
4. The head of the Gram Panchayat is called the Mayor. _____
5. Every city in India has a Gram Panchayat. _____

C. Fill in the blanks :

1. The Gram Panchayat has _____ members called 'Panch'.
2. All men and women above 18 years are _____.
3. _____ is the head of the Gram Panchayat.
4. The Gram Panchayat works for the _____ of its people.
5. Villagers select the _____ members.

D. Answer the following questions :

1. Name the local self-government bodies in villages and town cities.
2. What do you mean by Gram Panchayat?
3. Who is Panch?
4. Write any five duties of Gram Panchayat and Municipal corporation.
5. Who is the 'Mayor'?



ACTIVITY BAG

- **Group work :** Do a survey in your area notice that whether there is a road that needs repair, a park that need to be cleaned and maintenance or swings are broken? Select any topic and write a letter to the Mayor. Take your teacher's help.

The History of Man

Chap. 17



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

- ◆ How early-man being lived
- ◆ Discovery of fire
- ◆ Food and clothes they wore
- ◆ Fools they used
- ◆ How fire was useful to them

History is a subject which tells us about the past. Thus, history is the study of the past. We often think of the people, places, food, and life of early age that how they lived in the past? How they lived? What food they ate? What they did for recreation and so on. History provides the answers to these questions. People who study history are called historians.



Need to Study History

It is important to study history because we learn many things from past like many great lessons, teachings of great persons, leaders and the mistakes also that people made in the past. But it is the best inspiring subject which enables us to know and learnt about the efforts, discoveries, and recreating nature of people which motivate us to keep persistence in life to be succeeded.

Sources of History

Now the question a rises that what sources can provide us information of past and about the people who lived long ago? How can it be trustworthy?