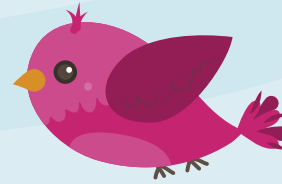


Environmental Studies

For Class 3

By
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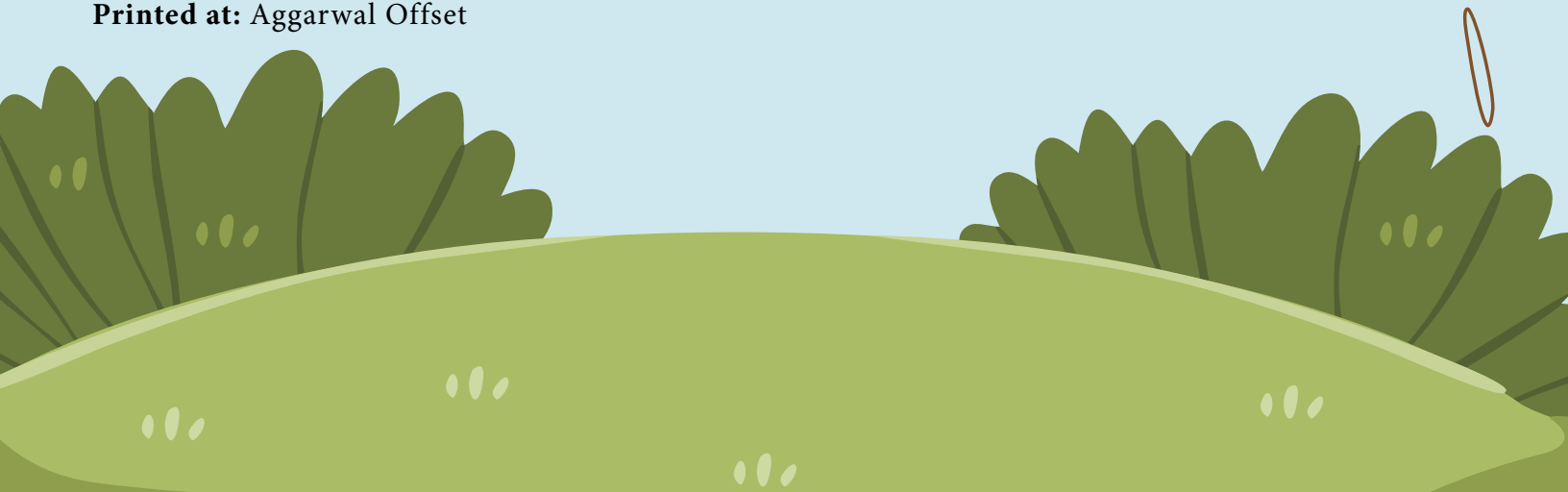
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Preface



This series of **Environmental Studies** consists of five books for classes 1 to 5. This series focuses on inculcating environmental awareness among children of Primary standard. It is based on the approach and guidelines in the National Education Policy and New Curriculum Framework.

The pedagogical elements in the series will sustain the interest of children and facilitate in-depth understanding the concepts in Environmental Studies (EVS). The elements in the series infuse scientific research through knowledge, skills, values and space for reflection and critical thinking among children.

This series links the knowledge gained at school with a child's out-of-school experiences. This has been achieved by selecting contexts which are available in the child's surroundings.

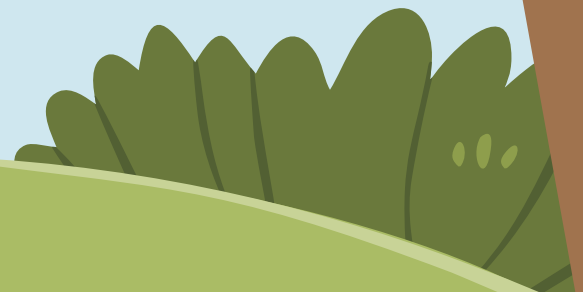
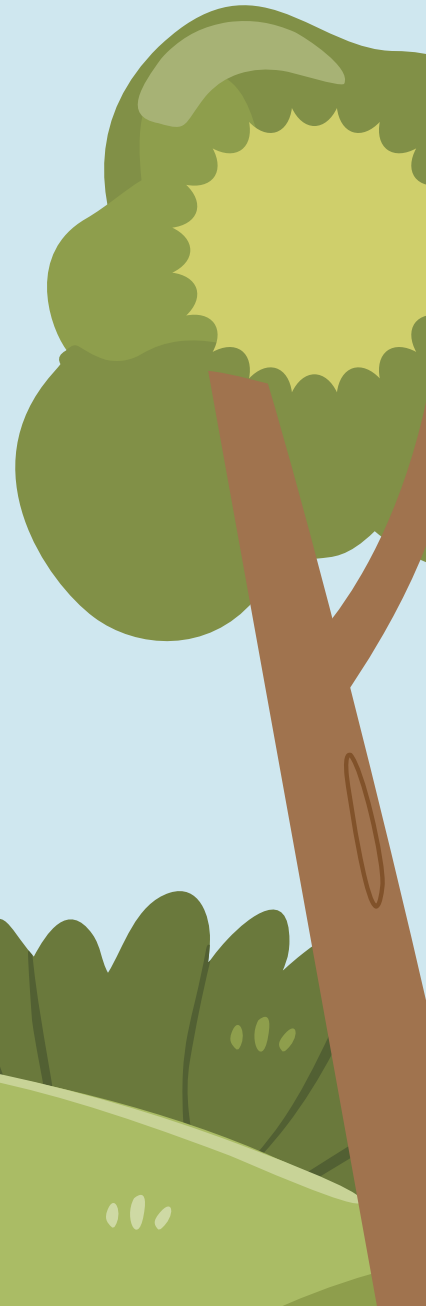
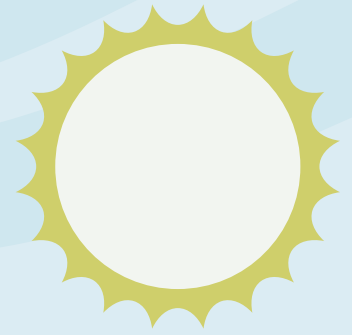
The various features in each chapter contain a set of tasks which help to develop soft skills such as thinking skills, creative skills, observation and communication skills.

Exclusive features of the series are:

- Every chapter starts with the **Curricular Goals**
- Every concept in the books has been explained in simple, lucid and child-friendly language keeping in mind the age groups of the learners.
- Colourful illustrations make the books much more attractive and comprehensive.
- **Check Your Knowledge** and **Need to Know** sections with the chapters make learning, comprehensive, involving and interactive.
- **Vales, Life Pillars** and **Do to learn more** offers the learners value-based education.

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Our Families



Curricular Goals

- Types of Family
- Sharing, Caring and Having Fun in the Family
- Family Resemblance
- People in a Family
- New Relatives in the Family



Mom, who are all these people in this album? I don't know them.

They all are our family members. They stay in other cities. I'll take you to them one day. Then, you'll know them better.

A group of people related to each other and living together in a house is called a **family**. Members of a family usually have some similarities.

Types of Family

There are different types of families.

Nuclear Family

In nuclear families, only parents and children live together. Nuclear families may be small or big. In nuclear family, generally one or both the parents are working while the children are studying. The children go to their grandparent's home in vacations.



nuclear family

Joint Family

In joint families, grandparents, parents, siblings, uncles, aunts and cousins live together in the same house. It is a big family.



joint family

Check Your Knowledge

1. Which type of family is yours?

2. How many members do you have in your family?

Single-parent Family

Single-parent family has only one parent, either the father or the mother and one or more children.

Need to Know

Some people adopt one or more children to complete their families.



single-parent family

People in a Family

There are many people in a family. There are siblings, paternal grandparents, uncles, aunts, cousins and father's sisters.

Paternal grandparents are called *dada* and *dadi*. Father's younger brother is called uncle or *chacha* and his wife is called aunt or *chachi*. Father's elder brother is called uncle or *taya* and her wife is called aunt or *tai*. Father's sister is called aunt or *bu*. Her husband is called uncle or *fufa*.

Maternal grandparents are called *nana* and *nani*. Mother's brother is called uncle or *mama* and his wife is called aunt or *mami*. Mother's sister is called aunt or *mausi* and her husband is called uncle or *mausa*. Children of *mama-mami* and *mausa-mausi* are called cousins.

Teacher's Tips

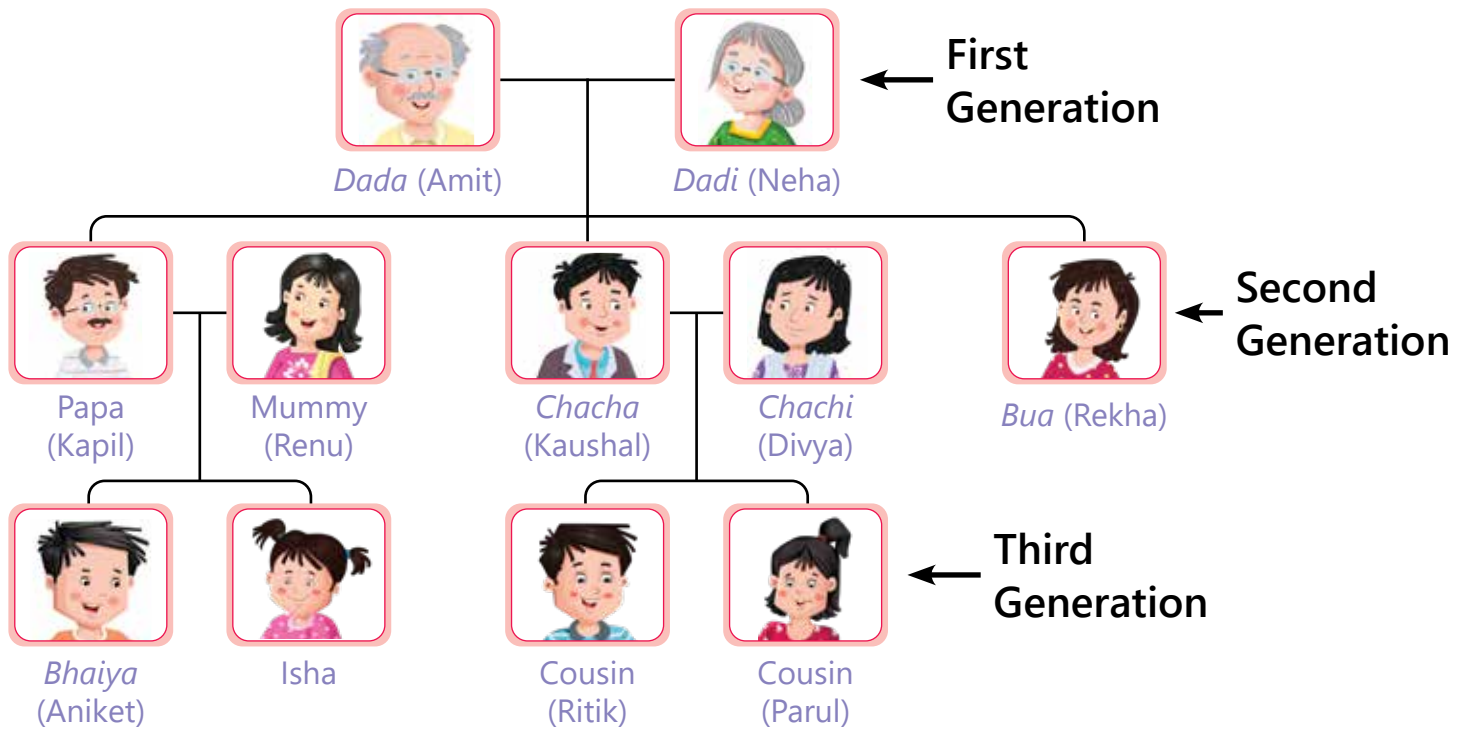


Tell the students about different types of families and the importance of every family member. Tell them that they should share and care in the family.

Need to Know

All the family members currently living with you make your immediate family.

A family tree shows the relationship between different members of a family. It always initiates from the grandparents. Given below is the family tree of Mishti's friend Isha.



Sharing, Caring and Having Fun in the Family

All the members of a family whether big or small share, care and help each other. They share the household work. Children also help with the household work by doing various small jobs like setting the table, watering the plants, tidying their rooms, etc. When they help each other, their work becomes easier.

It is also very enjoying to celebrate festivals and other occasions in the family. The family members love to have fun together. They laugh, chat, play and watch television together. All the family members take their meals usually together.

Everyone in the family loves and respects each other. Children take care of parents and grandparents and always help them in their work.



We also learn such good values in the family as being polite, being respectful, being helpful and so on.

New Relatives in the Family

A new relative is added to a family when someone in the family is married and when a baby is born or adopted.

Some members of the family live in other houses or in other cities. They often meet with each other on festivals and other special days like marriage parties and birthday parties.



Family Resemblance

The members of a family resemble each other in several ways. Some of them have some similar features, habits, talents, medical conditions and tone of voice. Often, the children have resemblance to their parents and grandparents.

Two babies born at the same time to a mother are called twins. Twin may or may not look alike. Twins have many common habits and interests.



Activity Time

Ask your friend whom does his/her following features look like. Put a tick mark (✓) below the person with resembling features.

Feature	Father	Mother	Grandmother		Grandfather	
			Paternal	Maternal	Paternal	Maternal
Colour and shape of the eyes						
Lips						
Colour of the hair						
Tone of voice						

Values

It is good to follow family customs and traditions that help us to be good human beings.

Word Power

- Nuclear Family** : a family having parents and their children
- Single-parent family** : family with only one parent either father or mother and one or more children
- Relative** : a person belongs to your family
- Twins** : two babies born at the same time to the same mother
- Resemble** : look alike

Summary

- A group of people living in the same house and related to each other make a family.
- Families can be nuclear, joint or single-parent.
- A family tree shows the different generations of a family and their relationships.
- Family members look after each other and have fun together.
- New members are added to a family from time to time.
- Members of a family look alike in some features.



Practice Time

A. Fill in the blanks.

1. A _____ family has only parents and one or more children.
2. Your _____ forms the first generation.
3. Your father's younger brother is your _____.
4. The family members look _____.
5. All family members _____ each other.

B. Choose the correct options in the following.

1. A joint family is a:

(a) nuclear family

(b) big family

(c) small family

2. Your mother's father is your:

(a) *nana* (b) *taya* (c) *dada*

3. Parents, grandparents, siblings, uncles, aunts and cousins live in a:

(a) joint family (b) nuclear family (c) small family

4. A family tree belongs to:

(a) neighbours (b) paternal family (c) maternal family

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. A family in which children and single parent live together is called a joint family.

2. Twins have many habits and interests in common.

3. Family members celebrate festivals together.

4. A family tree starts with the parents and uncles.

5. Family members take care of each other.

D. Answer the following questions.

1. What is a nuclear family?

2. What is a joint family?

3. What is a single-parent family?

4. How do you take care of your family members?

5. What are the similarities between you and your parents?

Life Pillars

Family members have a very strong bond between themselves. They love each other very much and are always ready to help each other. We should respect all family members and never use harsh words to any of them.

Do to Learn More

Ask your mother to tell you about her family tree. Draw her family tree on a chart paper. Colour and decorate it and gift it to your maternal grandparents when they come to visit you or you go to visit them. They will be happy to find such unique gift.

2

Sharing Work

Curricular Goals

- Community Helpers
- Child Labour
- Family at Work
- Ways to Reduce Child Labour



Community Helpers

There are many people in our community who have expertise in doing some kind work. They provide their services to us. These people are called **community helpers**. They are paid for their services. **Carpenter, cobbler, electrician, greengrocer, plumber** and **baker** are community helpers. Some more community helpers are given below.



A **tailor** stitches clothes.



A **carpenter** makes furniture.



A **cobbler** mends shoes.



A **plumber** repairs and fixes taps and pipes.



An **electrician** fits and repairs lights, fans, and other electrical things.



A **baker** bakes cakes, biscuits, breads and other bakery items.



A **greengrocer** sells vegetables.



A **postman** brings our letters and parcels.



A **doctor** and a nurse **treat** patients.



A **policeman** maintains law and order.



A **firefighter** puts out fire.



A **teacher** teaches students how to read and write.

Teacher's Tips

Tell the students about community helpers and how family members share each other's work.



Check Your Knowledge

Write the names of four community helpers and their works also.

Some community helpers serve community for free. They are called **social workers**. They work for the welfare of the society. Mother Teresa, Annie Besant and Baba Amte are some well-known Indian social workers.



Mother Teresa



Annie Besant



Baba Amte

There are some organizations in the community which work for the welfare of the society. Such organizations are called **non-governmental organizations (NGO)**. They work for the upliftment of the needy and the poor.

Activity Time

Find out more about Mother Teresa and write a few lines about her in the space given below.

Family at Work

Every person of a family is the smallest unit of the society. All the members of the family have their own role to play in the family also. All the members of a help each other to make the family happy and comfortable. All family members work in coordination to make the home a happy place.



All the household activities are taken care of by the mother. She cooks food for the family and takes care of all other needs of the family members. She also keeps the house clean. Most of the times she helps the children in doing their homework. She works throughout the day to keep the family happy. Besides doing household work, some mothers also go to office for work to earn money. Thus, their work becomes even tougher.

Father earns money to fulfill the needs of everyone in the family. Besides earning money sometimes, he helps mother in household activities like cooking and cleaning. He also helps the children in their studies.

Children help the parents by doing simple household chores like laying the table, tidying the room, watering plants and packing their school bags. The elderly people stay at home. They also help the family in many ways. They advise the family to take right decision in the times of need. They teach children good values like how they should behave with others. They tell the children interesting stories. They also used to go to work when they were young.

However, now they pass their time reading newspaper, watching television and praying. It is a blessing to have elderly people at home.

Child Labour

There are many children across the country who work to earn money. You might have seen children working in a *dhaba* or a hotel, at grocery stores, as delivery boys, and so on. Most of these children belong to poor families. They work so that they can support their families. Because of poverty, these children cannot go to school as they cannot pay their fees. When the children work for earning, this is called **child labour**.



Children of the age group 5 to 14 work as domestic help, on farms or sell things on streets. Some children also work in various factories. They have to make different things to earn money. Children are paid very little for the work they do. Child labour is very harmful for the physical and mental growth of a child.

In our country, child labour has been banned by the government. It has also made education free and compulsory for the children below fourteen years. In spite of all this, our country has the largest number of working children.

Need to Know

United Nations Children's Fund (UNICEF) and Child Relief and You (CRY) look after the rights of the children across the world.

Ways to Reduce Child Labour

- We should help the working children to go to school.
- We should explain to their families the importance of education.
- We should donate them our old books, pencils, erasers, sharpeners and crayons.
- We should also teach them whenever we get time.

Values

We should try to abolish child labour in our country. For this, we can request our parents, friends and relatives not to employ any child for any type of work either in their homes or offices.

Word Power

occupation : the work which people do to earn money

child labour : when children aged between 5 and 14 are forced to work and earn money

NGO : non-governmental organization which is neither a part of government or a political party

Summary

- The different kinds of work which people do to earn money is called occupation.
- Different people of different occupations such as carpenter, plumber, electrician, tailor, etc. work for us and give their services.
- The services provided by community helpers are very useful to us.
- All the members of a family help each other.
- Child labour is banned in our country.



Practice Time

A. Fill in the blanks.

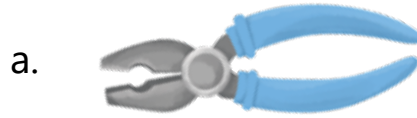
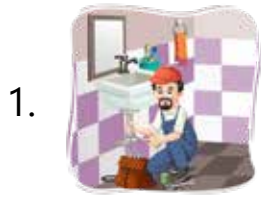
1. The work done by a person to earn money is called an _____.
2. The smallest unit of society is a _____.
3. _____ labour is banned in our country.
4. We should help working children to go to _____.
5. Household activities are taken care of by _____.

B. Answer the following questions.

1. What do you mean by an occupation?
2. What is child labour?
3. Name the elderly person/persons in your family

4. Who are community helpers? How do they help us?
5. How do your parents help you?

C. Match the community helpers with the tools they use.



Life Pillars

There are so many children in our community who do not go to school mainly because they don't have money to deposit their fees. We should help such children as much as we can do.

Do to Learn More

Divide the class into groups and make a poster to message the people to reduce child labour in our society.



Keeping Active

Curricular Goals

- Outdoor Games
- Games Played in the Past
- Indoor Games
- Game as Work
- Team Spirit
- Adventure Sports



All of us like to play games. Games are very essential to keep our body and mind fit. They keep us active and energetic. Everyone should play games for the sake of good health.

We should play the games in open places like parks and playgrounds as we can get sufficient space and fresh air there. Most of the people like to play in the evening. Games are a great means of entertainment or recreation. The activities which we do in our spare time are called **recreational activities**. Recreational activities help us relax and calm. The spare time which we spend on different recreational activities is also called the **leisure time**.

Teacher's Tips



Tell the students about different types of games and sports as well as their importance in their life.

Outdoor Games

The games which we play outside our house on a ground or a court are called **outdoor games**. Cricket, football, badminton, hockey, basketball and cycling are outdoor games. Some other outdoor games are volleyball, soccer and swimming. Some children also like to play hide and seek, *kho-kho*, *kabaddi*, *pithoo* and hopscotch. You may also see children skating and skipping. Outdoor games are one of the best form of exercise. They keep our body active and fresh.



Indoor Games

The games which we play inside our house are called **indoor games**. Ludo, table tennis, billiards, snakes and ladders, chess and carrom are indoor games.

Now there are different types of video games and play-stations. They are very popular among children. Sometimes, children, parents and grandparents play indoor games together. Some children like to play with toys and dolls.



Check Your Knowledge

Write the names of two outdoor and two indoor games which you like to play in your leisure time.

Outdoor Games: 1. _____ 2. _____

Indoor Games: 1. _____ 2. _____

Many games are played by a player alone against another player (opponent). There is no need of any team. These games are known as individual games. Cycling, swimming, chess, golf, etc., are individual games.



There are some games which are played by two teams. They are called team games. Each team has a group of players which play against another team or group of players. Cricket, hockey, football, *kho-kho*, volleyball, soccer, etc. are some very popular team games. Team games are played according to a set of rules. A referee or an umpire supervises that the game is played by following the rules.

Need to Know

There are 11 players in each team in cricket.

Team Spirit

Team spirit is the feeling of unity and harmony among the members of a team. It enables them to cooperate and play well together. The members of a team work as a unit. They share the common aim to compete and win against their opponents.

Games played in the Past

In the ancient time, there were no televisions and video games. The over health of the children in the past was much better than the health of the children in the present time. The children in the past played mostly outdoor games in open fields. They played *kabaddi*, *pitthoo*, hide and seek, hopscotch, *langri-tang* and many other games which required physical efforts more. Children also enjoyed wrestling, *gilli-danda*, marbles (*kanche*), *keekli* and many more.



Activity Time

Chor-Police game was a very popular among the children in ancient India. The group of children was divided into two groups—one group played as thieves and the other as the police. The police had the task of catching the thieves and then the turn changed, when all the thieves were caught. Play this game with the help of your teacher.

Game as Work

For some people game is like a work. They play games to earn money. Such players are called **professional players**. Professional players practice games continuously for long hours so that they can become expert in these games. They play in national and international matches and win **awards** and **medals**. They are given a salary for being a member of the national team. Sachin Tendulkar, the great cricket player, has been the best batsman in the world. Vishwanathan Anand is India's chess champion or Grandmaster. He has won many national and international chess tournaments. Some other professional players are P. V. Sindhu, Baichung Bhutia, Virat Kohli, Mary Kom, Vijender Singh and others.



P. V. Sindhu



Vijender Singh



Virat Kohli

Some games that people play professionally are:

- cricket, football, hockey, badminton
- baseball, boxing, athletics, wrestling
- polo, billiards, snooker, archery, weightlifting, table tennis

Adventure Sports

Adventure sports are also becoming popular all over the world. **Yachting**, **river rafting**, **wind surfing**, **scuba diving** and **hand-gliding** are some of the adventure sports. They are risky but exciting.



Values

Watching too much television or playing computer games is not good for our health. We must play outdoor games to stay healthy.

Word Power

- leisure time** : free time spent on entertainment
outdoor games : games played outside of the house on a ground or a court
indoor games : games played inside the house
grandmaster : a chess player who has won an international tournament

Summary

- Games keep us healthy and fit. So we must play games in our spare time.
- The games which are played outside the house are called outdoor games.
- The games which are played inside the house are called indoor games
- Children in ancient times played mostly outdoor games which required much physical efforts.
- Professional players play games to earn money.



Practice Time

A. Fill in the blanks.

1. Cricket and football are _____ games.
2. In modern times, children play games on _____.
3. Table tennis is an _____ game.
4. _____ is a professional cricket player.
5. The spare time which we use in recreational activities is called _____.

B. Choose the correct options in the following.

1. This is an outdoor game.
(a) chess (b) ludo (c) cricket
2. He is a cricket player.
(a) Sachin Tendulkar (b) Sania Mirza (c) Baichung Bhutia
3. It cannot be played indoors.
(a) ludo (b) carrom (c) football
4. It is an ancient game.

(a) gilli-danda

(b) golf

(c) polo

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. Chess is an outdoor game.
2. We should play outdoor games in park or playground.
3. Games are recreational activities.
4. Games keep us lazy and ill.
5. We should not play games which require body efforts.

D. Answer the following questions.

1. Why is it important to play games?
2. Who are professional players?
3. How do you spend your leisure time?
4. Which games were played in ancient times? Name any four.
5. Why are games called recreational activities?

Brainstorm

Why should we play fair games? Discuss with your friends.

Find Out

Ask your grandparents which games they played when they were young.

Fun to Learn

Take help from your games teacher and play a traditional game like kabaddi.

Life Pillars

Playing games is very important for us. It is a very good exercise of our body and mind. Games keep us healthy and fit. If we are healthy our mind works faster.

Do to Learn More

Match the players with the games which they play.

1.



2.



3.



4.



5.



a.



b.



c.



d.



e.





Plants: Our Friends



Curricular Goals

- Types of Plants
- Plants and Climate
- Uses of Plants
- Some Unusual Plants



We see different types of plants all around us. They are very useful for us as we get many things from them. Plants are living things but they cannot move from one place to another. They stay fixed at one place. Like us they also require food to grow but they can make their own food with the help of air, water and the sunlight.

Types of Plants

There are several types of plants. They have different shapes, sizes and leaves. We can categorize plants into different groups depending on their stems.

Teacher's Tips



Tell the students about different types of plants and plants growing in different climatic conditions.

Very small plants with soft, green stems and leaves are called **herbs**. They are seasonal plants and live only for one season. Grass, mint, coriander and spinach are the examples of herbs.



grass



mint



coriander



spinach

Small plants with woody stems are called **shrubs**. They have several branches which grow very close to the ground. They are also called bushes. They can live for a few years. Hibiscus, jasmine, rose, cotton and henna are the examples of shrubs.



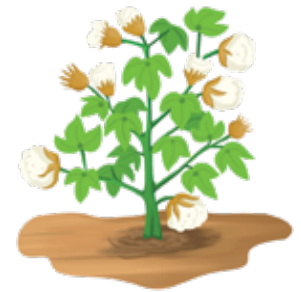
hibiscus



jasmine



rose



cotton

Big, tall and strong plants are called **trees**. They have a thick, hard and woody stem called the **trunk**. Trunk is covered with a thick skin called the bark. Trees have many branches and deep roots. Trees can live for many years. Peepal, neem, palm, apple, mango and coconut are the examples of trees.



peepal



neem



palm



mango

The plants which have weak stems and need some support to grow are called **climbers**. Grapevine, bean, pea plant and money plant are the examples of climbers.



grapevine



bean



pea plant



money plant

Some plants have very weak stems that grow along the ground. As they have big fruits, they cannot stand erect. They are called **creepers**. Pumpkin, muskmelon, watermelon, gourd and cucumber are the examples of creepers.



pumpkin



muskmelon



watermelon



gourd

Check Your Knowledge

Name two plants that live for

1. One year: _____
2. Two years: _____
3. More two years: _____

Need to Know

Desert plants have thick fleshy stems and thorn-like leaves.

Plants and Climate

Basic necessary conditions for plants to grow are proper sunlight, air, water and soil. We can find plants almost at every place on the earth. We can find them on mountains and hills, in rivers, lakes and ponds, in oceans and seas, in deserts and plains. Every type of plant cannot grow in every place. They require proper soil and climatic conditions to grow properly.

- Some plants grow in water. They are called water plants or aquatic plants. Hyacinth, lotus, water lily and duckweed are **aquatic plants**.

- Some plants are best suited to grow in deserts as they need very hot and dry climate with very little rainfall. Cactus and date palm are **desert plants**.
- Plants like fir, willow and spruce need very cold conditions to grow well. They mostly grow on mountains as they have suitable cold conditions.
- Teak and mahogany grow well in hot and wet conditions.

Activity Time

Make a scrapbook of plants which grow in different climatic conditions. Write two lines about each type of plants and paste pictures of plants that belong that category.

Uses of Plants

Plants are very useful for us. They are our green friends. They are helpful for us in many ways.

- Plants make the air clean and fresh. They give us oxygen to breathe. Plants prepare their food, they take up carbon dioxide from the air and give out oxygen. Oxygen is necessary for the survival of both the humans and animals.
- Most of our **food** comes from plants. We get vegetables, fruits, pulses, cereals, spices, coffee, sugar and oils from them.
- Fibre of some plants is used to make **cloth**. Cotton cloth is made from cotton plants. Fibre from jute and coconut is also used to make many useful things like ropes, bags and mats.
- Wood of plants is used to make **furniture**. Wood from trees like teak, sheesham and oak is considered good to make furniture, doors, windows and carts.
- Bamboo plant and several other grasses are used to make **paper**.
- Beetroot, henna and indigo plants are used to make dyes.
- Different kinds of **medicines** are made from the plants like neem, ginger, mint, eucalyptus and tulsi.
- We get **rubber** from the bark of a rubber tree.
- **Perfume** is made from the flowers of different plants like rose and jasmine.
- Plants provide **shelter** to different animals like monkeys, squirrels and birds.

Some plants were not originally grown in our country. They have been brought here from other countries and now grown here. Lychee originally comes from China and is now grown in India too. In the same way, kinnow is originally from California.



lychee



kinnow

Activity Time

Visit a garden with your parents and collect leaves of different plants there. Paste the leaves in your scrapbook and write the name of the plants below each of them.

Some Unusual Plants

Moulds and **Mushrooms** are non-green plants. They grow on dead and decaying plants and animals. They help in clearing the earth from dead organisms.



mould



mushroom

Some plants such as venus flytrap, sundew and pitcher plant eat insects to fulfil their nutritional needs. They are called **insectivorous** plants.



venus flytrap



sundew



pitcher plant

Cuscuta and dodder plants are parasitic plants. They grow on the stems of other plants and take all their nutrition from them.



cuscuta



dodder plant

Word Power

- herb** : a small plant with a soft and thin green stem
- shrub** : a plant with smaller woody stems that branch off near the ground
- creeper** : a plant that grows along the ground
- climber** : a plant that needs support to stand erect
- shelter** : a place to protect oneself from the weather and enemies

Values

We should not cut trees but protect them. They keep our environment clean.

Summary

- There are found different kinds of plants all over the earth.
- There are different kinds of plants such as herbs, shrubs, trees, climbers and creepers.
- Plants growing in water are called aquatic plants.
- Plants growing in deserts are called desert plants.
- Different plants grow in different climatic conditions.
- Plants are very useful for us.



Practice Time

A. Fill in the blanks.

1. The wood of _____ is used to make furniture.
2. _____ and _____ are the examples of trees.
3. We get rubber from the _____ and _____.
4. Plants give out _____ that is required by both animals and humans to stay alive.
5. _____ plant has come to India from China.

B. Match the following.

- | | |
|-----------------|---------------|
| 1. Teak | (a) Paper |
| 2. Spinach | (b) Cloth |
| 3. Cotton plant | (c) Furniture |
| 4. Tulsi | (d) Vegetable |
| 5. Bamboo | (e) Medicine |

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. Herbs live for a few years.
2. Trees have a thick, brown, woody stem.
3. Teak is a desert plant.
4. Pitcher plant is an insectivorous plant.
5. Plants do not need air to grow.

D. Answer the following questions.

1. What do plants need to make their food?
2. What are trees?
3. What is the difference between shrubs and herbs?
4. What are creepers and climbers?
5. What are parasitic plants?

Brainstorm

Why should we not tear paper to make paper planes, paper balls, etc.?

Find Out

What would happen if there are no trees in our surroundings?

Life Pillars

Plants are our green friends. They are very useful for us. We should grow as many plants as we can. We should take their proper care and not harm them in any way.

Fun to Learn

Given below is the picture of a tree. Collect the pictures of some things that we get from plants and paste them in the given space.



Do to Learn More

Complete the table given below.

	Plant	Uses
1.	Sheesham	Furniture
2.	Neem	
3.		Perfume
4.	Jute	
5.	Bamboo	
6.		Rubber
7.		Medicine
8.	Indigo	



Plants and their leaves

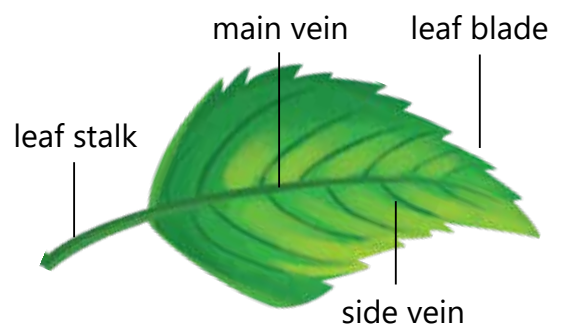


Curricular Goals

- Types of Leaves
- Uses of Leaves
- Shedding of Leaves



Leaves are very important part of a plant. They are usually green in colour and prepare the food for plants. They are of different sizes and shapes. However, their basic structure is the same. **Leaf blade**, **leaf stalk**, **main vein** and **side veins** are its main parts.



Types of Leaves

We can find leaves in different sizes, shapes and colours. They may be **compound leaves** or **simple leaves**. A compound leaf has many leaflets while a simple leaf has one blade only.



compound leaf



simple leaf

Colour

Usually the colour of leaves is **green**. They are green because of the presence of a green pigment called **chlorophyll**. leaves of some plants like that of croton may be red, yellow or orange.



croton plant

Size

Leaves may be big or small, broad and long or thin and long.

Need to Know

Veins inside a leaf carry water and food to and from the leaves.



broad and long leaf



big leaves



thin and long leaves



small leaves

Shape

Leaves are found in many different shapes. They may be **circular, oval, triangular, needle-like** and so on. The lotus plant has round leaves. Guava has oval leaves. The leaves of eucalyptus are long and the leaves of peepal tree are triangular. The leaves of a cactus plant are in the form of spines.



round leaves



oval leaves



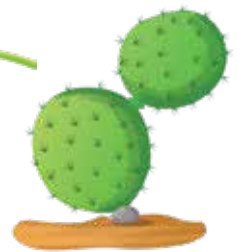
long leaves



triangular leaf



needle-shaped leaves



spinous leaves

Activity Time

Collect leaves of some plants and carefully observe their shapes. Draw their pictures on your notebook and write about their shapes.

Teacher's Tips



Tell the students about different types leaves. Show them the leaves of different plants so that they can identify plants by their leaves.

Some leaves have even and smooth edges, such as the leaves of mango and banana plant. Some leaves have jagged or uneven edges such as the leaves of rose plant.



smooth edges



jagged edges

Check Your Knowledge

1. Why are the leaves usually green in colour?

2. Name two plants whose leaves have even and smooth edges.

Smell

Leaves of different plants have different and unique smell. We can identify them with their smell.



coriander leaves



neem leaves



curry leaves



mint leaves

Texture

Leaves of different plants have different texture. Hence, they feel different to touch. Leaves of some plants have leathery touch, such as the leaves of rubber plant. The leaves of neem and guava are soft. The leaves of rose and hibiscus are rough to touch.

Uses of Leaves

Leaves are a major part of a plant. They are known as the food factory of a plant. They make food for the plant through the process of **photosynthesis**. They perform photosynthesis in the presence of air (oxygen), water and sunlight. Some food made by the leaves is used by the plant for its growth. The remaining food is stored in different parts of the plant. This stored part of the food is used by human beings and animals.



- Useful medicines are made from the leaves of tulsi, neem and many other plants.
- South Indians use the large banana leaves as plates to serve food on special occasions.
- Coconut, palm and date palm leaves are used to make the roofs of huts.
- Leaves of dhak plant are used to make bowls and plates.
- People use leaves of Ashoka and mango to decorate their houses on special occasions.
- Herbivorous animals such as deer, goat, sheep and giraffe eat the leaves of plants.
- Human beings use the leaves of several plants like spinach, fenugreek, betel and lettuce as food.
- Dyes are made from the leaves of henna and indigo.
- Tea is prepared using the leaves of tea plant.
- Leaves of some plants are used to add flavour to food such as curry leaves, coriander, mint and bay leaves.



Shedding of Leaves

Plants lose leaves and grow new ones throughout their lives. However, many trees shed all their leaves in autumn season. Trees do this because they stop growing during these times.

During the winters, water freezes in cold places. To lessen their need of water, plants shed their leaves. These fallen leaves can be used to make compost which is very useful fertilizer. It increases the fertility of soil.



Values

Most of the time, people burn the dry leaves and other dried parts of plants. It's not a good practice as it causes air pollution and lessens the air quality.

Word Power

- leaf blade** : the broad portion of a leaf
leaf stalk : the slender stem that supports the blade of a leaf
vein : the line like structure on the leaves
leaflet : each of the leaf-like structures that together make up a compound leaf
chlorophyll : the green pigment in all green plants

Summary

- Leaves are very important part of a plant.
- Leaves of plants are usually green in colour.
- Leaves differ in sizes, shapes, colour, smell and texture.
- Leaves prepare food through the process of photosynthesis in the presence of sunlight.
- Most trees shed their leaves once a year.
- Dry leaves of plants may be used to make manure.



Practice Time

A. Fill in the blanks.

1. The _____ has circular leaves.
2. The leaves of banana plant are used as _____ to serve food.
3. Dry leaves of plants can be used to prepare _____.
4. The leaves of _____ plant are used to add flavor to food.
5. Leaves use _____ energy to prepare food.

B. Match the following.

- | | |
|-------------------|-------------------------|
| 1. Spinach | (a) Food making process |
| 2. Coriander | (b) Flavour to food |
| 3. Rubber | (c) Rough touch |
| 4. Hibiscus | (d) Leaves as vegetable |
| 5. Photosynthesis | (e) Leathery touch |

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. Leaf blade is not the part of a leaf.
2. Leaves of some plants have peculiar smell.
3. Compost is used as a fertilizer.
4. Lotus leaves have uneven edges.
5. Eucalyptus has needle-like leaves.

D. Answer the following questions.

1. What are the main parts of leaves?
2. Differentiate between simple and compound leaves.
3. What is photosynthesis?
4. When do trees shed their leaves?
5. How are leaves useful for us? Write any two uses.

Brainstorm

Why do the plants like cactus have spine-like leaves?

Life Pillars

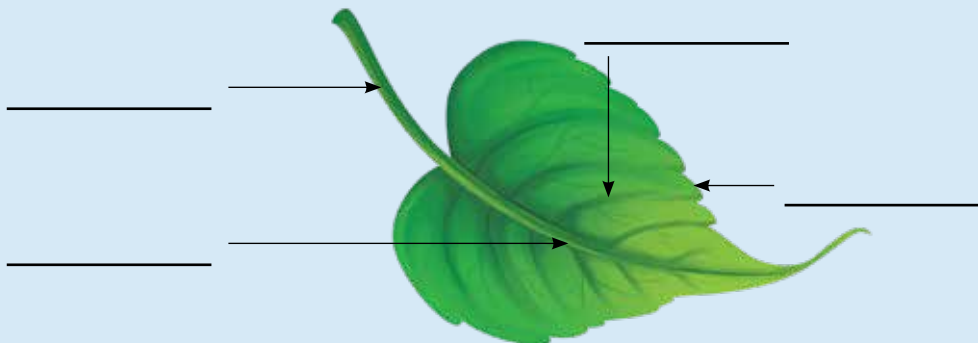
Manure is a natural fertilizer. It is very useful for plants. It does not harm the environment. Hence, the use of manure should be encouraged.

Fun to Learn

Make a scrapbook of plants which grow in different climatic conditions. Write two lines about each type of plants and paste pictures of plants that belong that category.

Do to Learn More

Mark the different parts of the leaf given below.





Animals Around Us



Curricular Goals

- Sizes of Animals
- Tails of Animals
- How Animals Move
- Food Habits of Animals



We see different kinds of animals around us. They are of different shapes and sizes. Some animals are big while others are small. Some animals live in forests and some are found around us.

Sizes of Animals

Animals are found in different sizes. Some animals are very big, some are big, some are small while others are very small.



Very Big Animals

Given below are the pictures of some big animals.



whale



ostrich



elephant



giraffe

Need to Know

- The tallest land animal is the giraffe.
- The largest animal in the world is the blue whale.
- Most tigers have more than a hundred stripes. No two tigers have the same stripes.

Big Animals

Given below are some big animals.



rhino



lion



kangaroo



tiger

Small Animals

Given below are some small animals.



fox



wolf



dog



monkey



cat



rabbit

Tiger is the national animal of India.

Teacher's Tips

Tell the students about different types of animals. Also tell them about their tails, how they move and what they eat.



Very Small Animals

Given below are some very small animals.



butterfly



rat



bat



mongoose

Tiny Animals

Given below are some tiny animals.



mosquito



spider



ant



ladybird

Check Your Knowledge

Write the names of the animals that are found

1. In water _____
2. On land _____
3. On trees _____
4. Underground _____

How Animals Move

Different animals move in different ways.

- Fish have no legs. They move with the help of their **fins** and **tails**.
- Animals like the earthworms and snakes also have no legs. They **squirm** on the land with the help of their body muscles..
- Some animals have eight legs with which they move from one place to another. These animals are octopus, scorpion and spider.
- Some animals like caterpillar and squid have several legs. They **crawl** on the ground.



➤ Animals like horse, zebra and tiger have four legs which they use to move from one place to another.

➤ Insects have six legs to move on. Some insects have wings to fly.

➤ Birds have one pair of wings which they use to fly in the air. They have two legs which they use to **perch** on the branches of trees and to move on the ground.

➤ Ducks have **webbed feet** to help them swim in the water bodies.



Tails of Animals

Most animals have tails. They use their tails for different purposes.

➤ Fish and other water animals use their tails to change direction of their movement.



A squirrel has a bushy tail while a kangaroo has a thick tail. They use their tails to maintain balance of their body.

➤ The tails of the animals like the buffaloes and cows are thin and long. They use their tails to fly away insects sitting on their body.



➤ Monkeys use their tails to swing from the branches of trees.

Food Habits of Animals

Every animal require food to stay alive. Different animals eat different types of food. Some animals eat only grass and other plants. Some animals eat flesh of other animals. There are also animals which eat both plants and flesh of other animals.

Based on the food habits, animals are of the following types.

Herbivores

Herbivores are the animals that eat only plants. They have special teeth which help them bite and chew plants well. They eat grass, leaves, fruit, seeds, grains and nuts, goats, buffaloes, deer, squirrels.



Goat eats grass.



Caterpillar eat leaves.



Squirrels eat nuts.



Hens and pigeons eat seeds and grains.

Carnivores

Carnivores are the animals that eat the flesh of other animals. **Lion, tiger, leopard**, etc. are carnivores. They have sharp and pointed front teeth. These teeth help them tear the flesh of other animals.



Need to Know

Carnivores are usually called predators as they prey upon other animals.



Omnivores

Omnivores are the animals that eat both plants and flesh of other animals. **Humans, bears, sparrows** and **crow** are omnivores.

Scavengers

Scavengers are the animals that eat the dead and decaying animals. **Vultures** and **hyenas** are scavengers.



Values

Animals are very useful to us. We should be kind to every animal.

Word Power

Herbivores : animals that eat plants

Carnivores : animals that eat flesh of other animals

Omnivores : animals that eat both the plants and flesh of other animals

Scavengers : animals that eat the dead and decaying animals

Squirm : movement of the body from side to side

Summary

- Animals can be very big, big, small, very small or tiny.
- Animals can be found on land, in water, on trees and both on land and in water.
- Different animals move differently.
- Most land animals have four legs to move on.
- Insects have six legs to move. Some insects have wings to fly.
- Different animals use their tails for different purposes.
- Depending upon food habits animals can be grouped as herbivores, carnivores, omnivores and scavengers.



Practice Time

A. Fill in the blanks.

1. A _____ is a very big animal.
2. A spider has _____ legs.
3. _____ are the animals which eat grasses.

- _____ swim in water with their fins and tail.
- A kangaroo has a _____ tail.

B. Match the following.

- | | |
|--|-----------------|
| 1. An insect that can fly | (a) Vulture |
| 2. An animal that have feathers | (b) Caterpillar |
| 3. An animal that crawls | (c) Housefly |
| 4. An animal that has webbed feet | (d) Sparrow |
| 5. An animal that eat dead and decaying animal | (e) Duck |

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

- A lion is a carnivorous animal.
- Fish change their direction, while swimming, with the help of their tails.
- Monkeys use their tails to climb upon a mountain.
- Goat is a herbivorous animal.
- Whale is a small animal.

D. Answer the following questions.

- Name three very big animals.
- What are herbivores?
- What do buffaloes and cows do with their tails?
- What are scavengers?
- How do snakes and earthworms animals move?

Life Pillars

Animals particularly dogs and cats kept as pet most of the time prove to be very loyal to their owners. There are many stories related to dogs in which they have safeguarded their owners. Read a story of such a dog from the Internet.

Do to Learn More

Visit a zoo with your teacher. Ask the zoo keeper about the food habits of different animals in the zoo. Write down on your notebook which animals eat what.



Insects, Spiders and Worms



Curricular Goals

● Insects

● Spiders

● Worms



Insects

Insects are the most abundant animals found on the earth. They are very tiny animals and can be found everywhere in the soil, in water, on plants and in the air. Insects have **six legs**. They have soft bodies without any bone. Their body has three main parts -**head**, **thorax** and **abdomen**. They have two feelers called **antennae**. Some insects which have wings can fly. Some insects have two wings while some others like beetles, bees and dragonflies have four wings. Termites and ants have wings when they are small. However, as they grow, they shed their wings off.



housefly

Need to Know

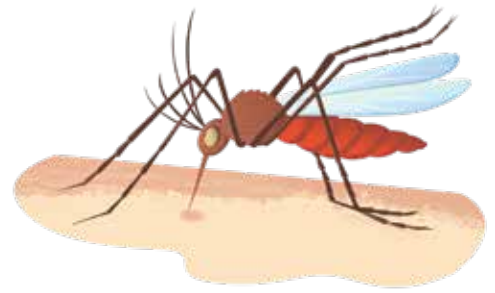
Ant lives in colonies which they make in anthills.

Most of the insects crawl but butterflies and mosquitoes do not crawl. They only fly. Some insects can both crawl and fly such as cockroaches, beetles, wasps and houseflies.



mosquito

Different insects eat in different ways. A mosquito sucks blood with its needle-like mouth while a butterfly sucks nectar using its tube-like mouth. Insects protect themselves from animals like frogs, birds and lizards by hiding themselves in corners and cracks of walls and furniture, tree trunks and holes in the ground.



Check Your Knowledge

1. Name two insects which cannot fly,

2. Where do you see butterflies?

Harmful Insects

Some insects are very harmful for us. We should protect ourselves from them. Some insects bite or sting. The insect bite causes pain and the biting site can get severe swelling. Some insects are the carriers of many diseases.

Mosquitoes are the carriers of the diseases like dengue and malaria. They inject the disease causing germs to the body of the person whom they bite. Hence, we should try to keep ourselves away from mosquitoes. For this, we can use a mosquito repellent.

Houseflies are the most dangerous insects as they are the carriers of a large number of diseases. When they sit on the garbage and the rotten food, the germs from these things stick to their feet. When the same houseflies sit on the food items, they transfer the germs to them. Thus, they contaminate the food. When someone eats the contaminated food, he/she gets diseases. They spread diseases like **dysentery** and **cholera**.



transfer of germs



Teacher's Tips

Tell the students about different parts of insects. Also tell them about worms and spiders.

The bite of insects such as wasps, lice and bugs is very painful. It causes itching and redness of skin. Termites can damage things made of wood like furniture, door and windows. Locusts cause damage to crops. Swarms of locusts attack fully grown crops and completely destroy them.

Harmful insects are also called pests. They can be controlled using different methods of pest control.

Activity Time

Surf the Internet and find out how the following insects are harmful.

1. Silverfish
2. Lice
3. Aphid
4. Flea

Useful Insects

Some insects are very useful for us. They provide us many useful things. We get silk from the silkworm. The silkworm is the larva or caterpillar of a silk moth. Honeybees suck nectar from flowers and make honey. Honey is very nutritious for us and it is used for various useful purposes. Some insects like butterflies and bumblebees help in the pollination of flowers of various plants.



butterfly



silkworm



honeybee

Spiders

Spiders are also very tiny animals but they are not insects. They have eight legs. Unlike insects, their body is divided into two parts. Spiders produce a special liquid which they use to spin web. They spin web to catch insects to eat.



Worms

Worms are also tiny animals. Caterpillars, millipedes and centipedes are worms. They have many legs. Caterpillars are the young ones of butterflies and feed mainly on green leaves of plants. Worms have long tube like bodies.



centipedes

Values

We should wire-mesh on door and windows to prevent insects from entering the house.

Word Power

- unhygienic** : unclean and constituting a likely cause of disease
- abundant** : present in great quantity
- sting** : a small pointed organ that cause a sharp or stinging pain or discomfort
- pollination** : transfer of pollen from one flower to another flower

Summary

- Insects are found in soil, water and air.
- Insects have six legs.
- The body of an insect is divided into three parts, head, thorax and abdomen.
- Some insects can fly while others cannot.
- Mosquitos and houseflies are harmful insects.
- Honeybees and silkworms are useful insects.
- Spiders are not insects.
- Worms are tiny animals.



Practice Time

A. Fill in the blanks.

1. The body of an insect is divided into three parts— _____, _____ and _____.
2. An insect has _____ legs.
3. A spider has _____ legs.
4. The _____ of insects are called antennae.
5. The bite of a _____ can cause dengue.

B. Match the following.

- | | |
|--------------------------------------|----------------|
| 1. Dragonfly | (a) Thorax |
| 2. The middle body part of an insect | (b) Butterfly |
| 3. Insect that only fly | (c) Four wings |
| 4. Harmful insect | (d) Honeybee |
| 5. Useful animal | (e) Termite |

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. Mosquitoes are the carriers of cholera.
2. We get silk from a butterfly.
3. Most of the insects crawl.
4. Houseflies contaminate our food.
5. Harmful insects are also called pests.

D. Answer the following questions.

1. Write three features of insects.
2. How do spiders spin their webs?
3. What do honeybees provides us?
4. How are insects harmful for us?
5. How are insects useful for us?

Brainstorm

Which is the insect that can move on water?

Find Out

Find out the difference between an insect and a spider.

Fun to Learn

Visit your school garden and notice insects there. Which insects do you see there? Write their names in your notebook.

Life Pillars

Insects get a bad reputation, but without them humans would not survive. You should avoid killing useful and beneficial insects. Some of them pollinate flowers for you and some like to kill other harmful insects and pests.

Do to Learn More

Draw the picture of an insect and label its different parts.



Our Feathered Friends



Curricular Goals

- Birds
- Birds and Their Sounds
- Feathers
- Beaks
- Neck Movement in Birds
- Migratory Birds

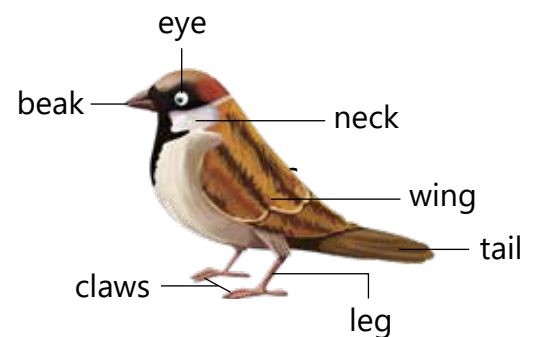


Birds

Most of the birds can fly in the air. They are one of the most beautiful and colourful animals on the earth. They have some specific features which help them fly in the air.

- They have two **wings** with **feathers**.
- They fly with the help of these wings.

The wings are attached to the breastbone with very strong muscles called **flight muscles** which help in the up and down movement of the wings. Their bodies are very light because they have **hollow bones** filled with air. Their bones are very strong to bear the pressure of the air. They have **streamlined body** which help them to cut through the air easily.



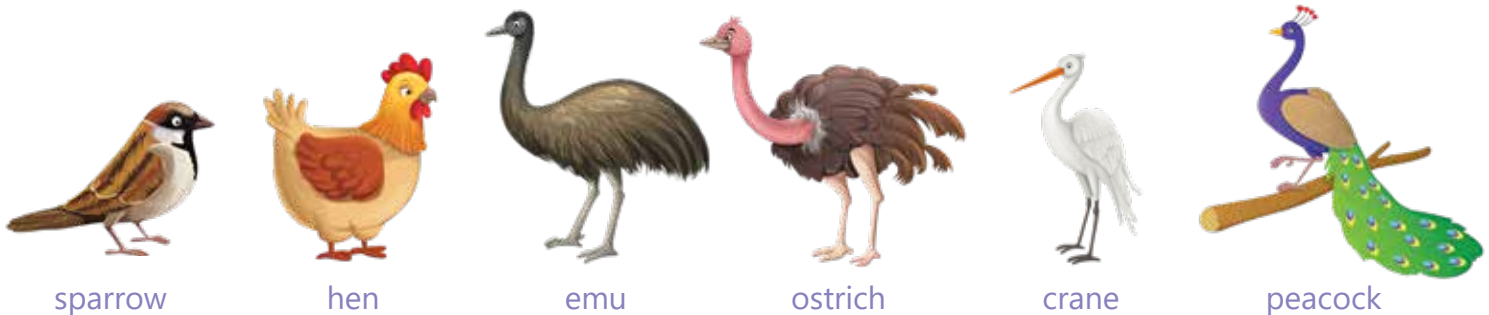
Birds have two legs with **claws** which help them to perch on the branches of the trees, scratch the ground and hold their food.

Different birds are capable of flying different distances and different heights as per their ability.

Some birds can fly very high in the sky such as eagles and vultures. Some birds do not fly very high. They fly at low heights such as the sparrow and bulbul. Some birds like hens and peacocks are able to fly very short distances. Some birds like swallows and cranes are able to fly very long distances. Ostrich, penguin, kiwi and emu have weak flight muscles and heavy bodies. Therefore, they cannot fly. Hence, they are also called **flightless birds**.



eagle



sparrow

hen

emu

ostrich

crane

peacock

Need to Know

Birds clean their feathers with the help of their beaks. This process is called the preening.

Check Your Knowledge

Why are flightless birds called so?

Feathers

Feathers are very useful for birds. They not only help them in flying but they help them in many other ways also. They keep the bird warm when it is cold by trapping the body heat. Aquatic birds like duck have waterproof feathers which prevent them from getting wet. Feathers also protect the bird's skin from enemies. Some birds like peacock and macaw have very colourful feathers which help them attract their partners.

Teacher's Tips

Tell the students about different types of birds and their body structure.

Activity Time

Collect the pictures of feathers of different types of birds and paste them in your scrapbook. Also write the names of the birds below them.

Neck Movement in Birds

Different birds move their necks differently. Peacock moves its neck back and forth while walking. Mynah moves its neck back and forth with a jerk. Owl can move its neck backwards to a very large extent.

Birds and Their Sounds

Haven't you heard the chirping of birds? Birds make different types of sounds to communicate with each other. Sometimes, they make a call and sometimes they sing a song. A call is single sound such as squeak which they repeat frequently. A song is a melodious musical sound.



Beaks

Birds do not have teeth. They have beaks that help them to eat. Different birds have different types of beaks. The beaks of birds differ according to the kind of food they eat.

Some birds like sparrow have **short, hard and pointed beaks**. This type of beak helps the bird to crack open their food like seeds and grains.



Some birds have **long and curved beaks**. This helps them to drink nectar from flowers. Sunbirds and hummingbirds have such type of beaks.

Birds like hoopoes and woodpeckers have long, **pointed and straight beaks**. Their beaks are very sharp and strong to help them to pull out insects from the bark of the tree and also in making their homes in tree trunks.





Birds like parrots have **very strong and hooked beaks**. They help them crack open nuts, fruits and seeds.

Some birds have **broad and flat beaks** with holes on their sides. They help the birds to dig mud under the water. Water and mud flow out of the holes and the food remain in their mouths. Ducks and spoonbills have such beaks.



Some birds have **long and scissor-like beaks**. This type of beaks enables the birds to catch fish. Storks and cranes have such type of beaks.

Some birds have **strong, sharp and hooked beaks** as they need to tear the flesh of animals. Eagles, vultures and kites have such beaks.



Migratory Birds

The birds from the cold regions of the world fly to warmer places during the winters every year. They cover long distances to reach their destinations. Such birds are called **migratory birds** and their movement with change in season is called migration. Some birds also migrate from one place to another when there is shortage of food.

Values

Birds are living beings like us. They also have feelings. We should never be cruel to them. They should be treated with love and care.

Word Power

- streamlined** : shaped like a boat
- claw** : a bird's foot
- preening** : the process by which birds clean their feathers
- migration** : seasonal movement of birds from one place to another
- breastbone** : a thin, flat bone running down the centre of the chest

Summary

- A bird has two legs, a beak, two wings and a streamlined body.
- Different birds fly at different heights and cover different distances.
- Birds like ostrich and penguin cannot fly.
- Birds have different kinds of feathers.
- The shape and size of a bird's beak depends upon the type of food it eats.
- Some birds migrate every year to escape extreme cold weather and the shortage of food.



Practice Time

A. Fill in the blanks.

1. Birds have _____ wings which help them fly in the air.
2. The birds which cannot fly are called _____ birds.
3. An eagle has _____ and _____ beak to tear the flesh of animals.
4. Peacock moves its neck with a _____ while it moves.
5. Sometimes birds make a _____ and sometimes they sing a song.

B. Match the following.

- | | |
|--|----------------|
| 1. A bird that cannot fly | (a) Woodpecker |
| 2. A bird that has straight, pointed beaks | (b) Hen |
| 3. A bird that has sharp, hooked beaks | (c) Sparrow |
| 4. A bird that flies short distances | (d) Ostrich |
| 5. A bird that flies at low heights | (e) Vulture |

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. Hen and peacock can fly very long distances.
2. Birds communicate by making different sounds.
3. Feathers keep the birds warm in winters.
4. The shape of the beak depends on the kind of food birds eat.
5. An eagle is a flesh-eating bird.

D. Answer the following questions.

1. How do birds fly?
2. What are flightless birds? Give two examples.
3. Why do birds have feathers?
4. Why do birds migrate?
5. How are beaks useful to birds?

Brainstorm

Birds have different types of feet and claws. Do you know what is the reason?

Find Out

Which is the smallest living bird? What is its size?

Fun to Learn

What do the following birds eat?

- | | | | |
|-----------------|-------|----------|-------|
| 1. Parrot | _____ | 3. Eagle | _____ |
| 2. Humming bird | _____ | 4. Duck | _____ |

Life Pillars

Birds are our feathered friends. They have a great importance in the maintenance of environment. Most of birds eat insects and thus control their number. They also help in the pollination of flowers and spread of seeds.

Do to Learn More

The branch of science that deals with the study of birds is called ornithology. Salim Ali has been a great ornithologist of India. Find out the names of two more ornithologists.



From Where We Get Food



Curricular Goals

- Food from Plants
- Food from Animals
- Cultural Diversity in Food



We know that our body is just like a complex machine. It keeps on working without any pause. Our body needs energy to do work and to grow. Where do we get this energy from? We get this energy from the food that we eat. We get our food from plants and animals.

Food from Plants

Most of our food comes from plants. Human beings eat different parts of plants as shown in the following pictures.



fruits



flowers



roots



seeds



leaves



stems

➤ Vegetables and fruits are very nutritious for us. They are the rich sources of vitamins and minerals. They protect our body from diseases. Hence, they are also called protective food. We can eat some vegetables raw or without cooking. We need to cook some vegetables before eating them.

Check Your Knowledge

Write the names of vegetables.

1. that you eat raw
2. that you cook before eating

➤ Some foods like wheat, rice and cereals are rich in starch. They provide energy to our body. Hence, they are called **energy-giving food**. They provide us energy to do our daily work.

➤ Our body needs body-building food to grow. There are certain body-building food items that promote growth in children such as pulses, beans, nuts, etc. The material needed by the body to repair the injured parts is also obtained from these body-building food items.

➤ Plants also provide us oil which we use for cooking purposes. We get cooking oil from mustard, sunflower, coconut and groundnut. They are rich in fat and provide our body warmth and energy.



clove

pepper

➤ Plants also provide us spices. They are parts of some plants and add flavour, aroma and colour to our food. Coriander, curry leaves, cumin, clove, turmeric and pepper are some spices.

➤ Coffee and tea are also the plant products. We get coffee from the seeds of coffee plant and tea from the leaves of tea plant. Sugar is obtained from sugarcane and beetroot.



tea



coffee

➤ Various plants like tulsi, neem, aloe vera and giloy have medicinal properties. They are used in the cure of different ailments.



mint



neem

Need to Know

Many spices like turmeric, cloves, cumin, etc., are also used as medicines in various diseases.

Food from Animals

Like plants, animals are also the sources of food. We get a large variety of food from animals. The food that we get from animals need to be cooked before we can eat it.

Milk and Milk Products

We get milk from the animals like cows, buffaloes and goats. People living in cold areas use the milk which they get from yak and the people in desert regions drink the milk of camel. A number of dairy products like cheese, curd, butter and different types of sweets are prepared from milk.



Eggs

Eggs are a very rich source of protein. We get eggs from hens and ducks. Besides, it also has minerals and vitamins.



Honey

Honey is a very useful animal product. It is made by honeybees using the nectar of flowers. It is used as sweetener and as an antiseptic. It is also used as an ingredient in the preparation of several medicines.



Meat

Some people eat meat from animals like goat, hens and fish. Prawns and lobsters are also used as food.

People who eat meat and eggs are called **non-vegetarians**. Such people also eat vegetables, fruits, and other plant products besides eating meat and eggs. There are also people who never use meat, fish or eggs. They eat food from plants only. Such people are called **vegetarians**.

Cultural Diversity in Food

People in different parts of our country eat different types of food. The type of food people eat solely depends on the area, availability of food, religious beliefs and customs.

- In the coastal area of the country, people eat mostly fish, lobsters and prawns because they are available there in plenty.

- The popular food items in southern part of our country are *dosa*, *rice*, *sambhar* and *idli*.
- *Makki ki roti*, *dal* and *sarson ka sag* is very popular among the people living in Punjab.



People living in different parts of the world eat different types of food. Some people eat semi-cooked food while others like to eat roasted food. Some people like to eat spicy food while there are some people who do not like too much spices in food. Same ingredients may be used to make different food items depending upon people.

Values

We should not use vegetables and fruits without proper washing. Washing removes dust, germs and chemicals which may be sticking to them.

Word Power

balanced diet	: The diet which contains all the nutrients in right amount
ailment	: disease
vegetarian	: the person who eats plant products like vegetables and fruits
non-vegetarian	: the person who eats meat and eggs besides eating fruits and vegetables

Read and Recall

- We get energy from the food that we eat.
- We get food from plants and animals.
- Vegetables, fruits, cereals, pulses, oil and spices are obtained from plants.
- We get milk, eggs, meat and honey from animals.
- The food habits of people differ from one another based upon the area, climate and traditions.



Practice Time

A. Fill in the blanks.

1. Fruits and vegetables are rich in _____.
2. We get sugar from _____ and _____.
3. We get oil from _____ and _____.
4. Cereals are rich in _____.
5. We get energy from _____.

B. Match the following.

- | | |
|----------|-----------------------------|
| 1. Idli | (a) Hen |
| 2. Fish | (b) Cow |
| 3. Meat | (c) South India |
| 4. Milk | (d) Spice |
| 5. Cumin | (e) People in coastal areas |

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. We get milk products from plants.
2. Tulsi and Neem have medicinal value.
3. Cereals have proteins that help to repair body parts.
4. We get honey from honeybees.

D. Answer the following questions.

1. What are the sources of food?
2. Which food items do we get from plants?
3. What do we get from animals?
4. Differentiate between vegetarians and non-vegetarians?
5. Why do people living in different regions eat different food?

Life Pillars

It is necessary to eat healthy food to keep our body healthy. We should avoid too much of spicy, oily and junk food. We must include green vegetables and fruits in our daily diet. We should also drink plenty of water.



Curricular Goals

- Cooking Methods
- Types of Stoves and Fuels
- Utensils Used for Cooking
- Eating in a Family



We know that our food comes mainly from plants and animals. Fruits and some of the vegetables such as carrot, radish and cucumber we eat raw (without cooking). Other vegetables and certain food items need to be cooked such as cauliflower, capsicum, brinjal, potato, etc. Food items from animals need to be cooked essentially. We should never eat them raw.

Cooking makes the food soft and easy to digest. It also improves the taste and smell of food. Cooking food also kills harmful germs.



Teacher's Tips

Tell the students about different methods of cooking.

Cooking Methods

There are several methods of cooking food as given below.

Boiling

It is a method in which a food is cooked in the boiling water. Pulses, rice, and some vegetables are cooked by this method. Milk is also boiled before using. Boiling kills the germs in the milk if any.



Baking

This method is used to cook biscuits, breads and cakes. In this method, no fat or water is used for cooking. Baking is done in an **oven**.

Frying

It is the method of cooking in which food items are made in hot oil or ghee. *Puris*, *samosas*, and chips are made using this method. They are made in a *kadahi* or wok. This method of cooking is called deep frying. Some food items like *parathas* and *pooras* are fried on a griddle. In this method, less oil is used. This method is called shallow frying.



Check Your Knowledge

List your favourite food items in the space given below.

Need to Know

Too much deep frying of food items destroys the nutrition level of food items.

Roasting

It is the method in which food is cooked over fire or in an **oven**. Chapattis, some dry fruits, corn, etc. are roasted before eating. Chicken, paneer and some vegetables are roasted on a skewer.



Grilling

It is the method in which food is cooked over direct heat. Grilling is done in a **griller** or a *tandoor*. Some vegetables, chicken and meat are cooked using this method.



Steaming

In this method, food is cooked at a high temperature with steam. Momos, idlis, dhokla and some other food items are cooked by steaming. A **steamer** or a **pressure cooker** is used in this method.

Utensils Used for Cooking

You have noticed a variety of utensils in the kitchen. Some of them are used for cooking purposes. They are usually made of steel, aluminium, brass, glass or iron.



griddle



pot



pressure cooker



wok



frying pan



spatula



ladle



teaspoon



serving spoon



tablespoon



skimmer

Types of Stoves and Fuels

Different types of stoves are used in our country, such as gas stove, kerosene stove, solar cooker, electric stove. LPG (liquefied petroleum gas) is used in gas stoves and kerosene oil is used in a kerosene stove. Solar cooker uses sunlight as fuel. Electric stove runs on electricity. Some people in our country also use traditional *chullah* which uses wood, coal and cow dung cakes as fuel.

Eating in a Family

All family members live under one roof. They should eat at least one meal of the day together. It gives them immense pleasure. They sit together and may talk to each other while eating. Family members should help one another in various ways in cooking, laying dining table and serving food. They can also help each other in purchasing groceries, vegetables and fruits.

Most of the time in the family, the same kind of food is prepared for everyone. However, for the members who have special needs, special kind of food is cooked as per their requirements. Nutrition needed for a person depends mainly on the age. Sick people also need special food. They are given food which help them recover soon.

Values

Do not use stoves yourself or go too close to them or other hot things in the kitchen. It might burn you.

Word Power

- Griddle** : cooking utensil consisting of a flat heated surface
Roasted : cooked by dry heat in an oven
Grilling : cooking by direct exposure to radiant heat
Steamer : a cooking utensil that can be used to cook food by steaming it

Read and Recall

- Some food items can be eaten raw while some can be eaten cooked.
- Food from animals should be cooked properly before eating.
- Cooking makes food soft, tasty and easy to digest.
- Boiling, steaming, frying, roasting, baking and grilling are the different methods of cooking.
- Various utensils like pressure cooker, wok, frying pan, etc are used to cook different dishes.
- Different types of stoves are used in our country like gas stove, kerosene stove, electric stove, etc.
- The type of food a person eats depends on age and required nutrition.



Practice Time

A. Fill in the blanks.

1. _____ can be eaten raw.
2. _____ cannot be eaten raw.
3. _____ is used as fuel in gas stove.
4. Cooking makes the food _____ and easy to _____.
5. _____ is used to cook biscuits, breads and cakes.

B. Match the following.

- | | |
|-----------------|--------------|
| 1. Fried chips | (a) Boiling |
| 2. Biscuit | (b) steaming |
| 3. Meat | (c) Frying |
| 4. Rice | (d) Roasting |
| 5. Paneer tikka | (e) Baking |

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. We should not eat raw vegetables.
2. Samosas are prepared by deep frying method.
3. We should eat at least one meal of the day with our family.
4. Chicken is roasted on a skewer.
5. Utensils are usually made of zinc.

D. Answer the following questions.

1. Why do we need to cook food?
2. Name the various methods of cooking.
3. What is the difference between deep frying and shallow frying?
4. Why should all the family members eat together?
5. What are various utensils in which food is cooked?

Do to Learn More

We should not eat too much of junk food like chips, burgers, noodles and pizzas. Why? Ask your teacher.



Need for a House



Curricular Goals

- Types of Houses
- Houses in Different Regions
- A Good House



Every one of us need a house. A house protects us from cold, heat, rain and storms. It also protects us from stray animals, robbers, pests and insects. In our house, we can stay with our loved ones comfortably.



Check Your Knowledge

How many rooms does your house have? Write their names and also write what you do in these rooms.

Teacher's Tips



Tell the students about different types of houses and why houses are built differently in different areas of the world.

We live in our house with our family. There are many other houses near and around our house. Many families live in these houses. Other houses near and around our house make our **neighbourhood**. The people living in these house are our **neighbours**. We should live with our neighbours peacefully and help them in times of need.

Types of Houses

In the early time, man lived in the forest. He covered his body with the skin of animals and leaves. He did not live in the houses like he does in the present time. He lived in caves and take shelter under trees. Gradually, he learnt to make houses from mud, straw and bamboo. These houses are called **huts**. They are *kutchra* houses as they are not very strong houses and may easily be broken and blown away by storm and heavy rains.

In due course, man learnt from his experience and started to build stronger houses made from cement, bricks, iron, steel and concrete. They are called *pucca* houses. *Pucca* houses are not affected by heavy winds and rain. There are several types of *pucca* houses. Bungalows, flats and apartments are the examples of *pucca* houses.



Check Your Knowledge

1. Where do you find *pucca* houses, in general?

2. What material is used to make a *kutchra* house?

A Good House

A house may be small or big. No matter, your house is small or big, you should keep your house neat and clean. Every member should contribute to keep the house clean.

- There should be no dirt and cobweb in the house. Clean them regularly.

- Wipe and mop the floors daily.
- Everything should be kept at its definite place.
- There should be sufficient doors and windows in the house to allow fresh air and the sunlight to come into house. Sunlight keeps the house germ free.
- There should be wire-mesh on the doors and windows. It prevents flies and mosquitoes from entering the house.
- Make proper arrangement so that stray animals cannot enter the house.
- Clean the bathrooms and toilets everyday and keep them dry.
- Keep the dustbins covered. Use a blue dustbin to throw plastic bottles, tin and glassware. Use a green dustbin to throw paper, vegetable peels and leftover food.
- Dust the furniture of the house everyday.

Check Your Knowledge

1. Do you keep your house clean? How?

2. Where do you throw wastes produced in the house?

Besides keeping the house clean, we should also decorate our house on special occasions like festivals, birthday parties and anniversaries. We can use flowers, festoons, balloons, leaves, lights and *rangolis* to decorate our house.



Check Your Knowledge

1. When do you decorate your house?

2. What things do you use to decorate your house?

Houses in Different Regions

Different types of houses are built in different regions and the climate. Different houses help people in different ways. Some people need to move around a lot. They take their houses around with them. These are called temporary houses. Tents, caravans and houseboats are examples of temporary houses.

Some people live in a place for long time. They build permanent houses for themselves.

Stilt Houses

These are the houses which are built in the regions where it rains a lot. These houses are built on poles

or stilts which keep the house high above the ground.

Thus, the flood water and animals do not enter the house. These houses have sloppy roofs so that the rainwater does not stop on the roofs. The ladder which is used to enter the house is removed during nights.



Houseboats

We can see houseboats in Kashmir and Kerala. These houses are built on boats and are also called **floating houses**. They float in canals and lakes.



Caravan

It is a house on wheels. It can be moved from one place to another. It is also called **travel trailer**.



Need to Know

Tourists visiting Kashmir generally stay in houseboats floating in Dal Lake.

Tents

Tents are movable houses. They consist of sheets of fabric or any other material draped over, attached to a frame of poles. We fold them easily as they are made of canvas, leather or cloth. The people who camp in mountains and deserts use this type of house.



Igloo

These are the houses made of blocks of ice. They are made in the regions like Greenland which are extremely cold. Their dome shaped structure keeps the people warm inside.

Word Power

- Storm** : a violent weather condition with strong winds
- Cobweb** : an old and dusty spider's web
- Wire-mesh** : net made of wire fitted to doors and windows in the house
- Decorate** : make more attractive by adding ornament, colour, etc
- Festoons** : an embellishment consisting of a decorative representation of a string of flowers suspended between two points
- Stilt** : a column of wood, steel or concrete that is driven into the ground to provide support for a structure

Summary

- We all need a house.
- A house protects us from bad weather, wild animals, thieves, etc.
- The houses near and around our house make our neighbourhood.
- The people living in our neighbourhood are called our neighbours.
- Houses can be *kutchra* or *pucca*.
- We should keep our house neat and clean.



Practice Time

A. Fill in the blanks.

1. *Pucca* houses are made of bricks, cement and _____.
2. The early man lived in _____ and under trees.
3. Stilt houses have _____ roof.
4. We should keep our house _____ and clean.
5. We should not throw _____ near our house.

B. Match the following.

- | | |
|------------------------|-----------------------|
| 1. Igloo | (a) Mud and straw |
| 2. Houseboat | (b) Bricks and cement |
| 4. <i>Kutcha</i> house | (c) Poles |
| 5. Stilt house | (d) Ice and snow |
| 6. <i>Pucca</i> house | (e) Floating house |

C. Tick (✓) the correct answers.

1. It is a house on wheels.
(a) tent house (b) caravan (c) houseboat
2. We can see an igloo at this place.
(a) Delhi (b) Greenland (c) Africa
3. The doors and windows of the house should have the following.
(a) water pots (b) fans (c) wire-mesh
4. *Kutcha* houses are made of this.
(a) bricks and stones (b) wood and paper (c) mud and straw
5. Tent is made of this.
(a) canvas (b) brick (c) paper

D. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. Our house should be dirty.
2. Igloos are built in cold places.
3. A bungalow is a *kutcha* house.



4. A caravan is a house on wheels.
5. We can see houseboats in Delhi.

E. Answer the following questions.

1. Why do we need a house?
2. Why does a house need doors and windows?
3. Write two examples of *pucca* houses.
4. Why should there be wire-mesh on doors and windows?
5. How can we decorate our house?

Brainstorm

When did early men feel the need to have a house?

Find Out

Who are the people who help us in building a house? Make a list.

Fun to Learn

Houses in different regions and climatic conditions are made differently. Collect the pictures of houses build in different regions of the world and paste them in your scrapbook.

Life Pillars

A house may be big or small, *kutchra* or *pucca*. Whatever the type of house we live in, we should keep our house neat and clean. We should open the doors and windows of the house in the morning to let the fresh air and sunlight in.

Do to Learn More

With the help of your parents make a model of a stilt house and place it on your study table.



Our Clothes

Curricular Goals

- Knitting
- Dying the Cloth and Making Patterns
- Some Popular Clothes in India
- Weaving
- Different Types of Clothes



Clothes are one of our basic needs. They protect us from the harsh weather conditions, insect bite, dust and dirt. They also make us look good. There are several methods of making cloth.

Knitting

In this method, cloth is knitted on knitting machines. We can use one or more threads in knitting. At home, knitting needles are used to knit different types of clothes particularly sweaters, mufflers and gloves by hand. People also knit tracksuits, shawls, t-shirt and many other clothing.



Weaving

Through this method cloth is made on handlooms or power looms, which run on electricity. Two threads are used in the process of weaving.



Dying the Cloth and Making Patterns

After the cloth is ready, it is dyed. For this, it is soaked in coloured solution. Dyes are prepared from vegetables, flowers and chemicals. Once the dying of cloth is complete, different designs and patterns are made on it.



Tie and Dye

In this method, patterns are made on a particular area of the cloth. That area of the cloth is tied up very tightly so that dye does not reach them. After it, the rest of the cloth is dyed and then the tied-up area is opened to get patterns. This method is mostly used in Rajasthan and is called *bandhani*.



Block Printing

In this method, patterns are made using wooden blocks which have patterns on them. The wooden blocks are dipped into paint and then pressed onto the cloth.



Vegetable Printing

In this method, patterns are made using cuttings of vegetables. Vegetables are cut into attractive shapes and sizes. Then they are dipped in paint and pressed onto the cloth to make patterns.

Embroidery

In this method, patterns are made using threads of various colours. A needle is used to make embroidery.

Different Types of Clothes

People living in different areas wear different clothes. Mostly people wear clothes as per the climate in their regions. Traditions and customs also play a major role in deciding the types of the clothes people wear. In the regions where it is very hot, people prefer to wear the clothes which keep them cool. Light cotton clothes keep us cool. In the regions, where the climate is very cold, people prefer to wear the clothes which keep them warm and protect them from cold.



In our country, people living in different states wear different types of clothes. In Punjab, men wear *lungi-kurta* and women wear *salwar-kameej*. For women, *saree* is a traditional and popular dress in our country. However, women in different regions of the country wear *saree* in different styles. Most Indian women like to wear colourful dresses. Women in Rajasthan like to wear *ghaghra* with *katchli*. In Gujarat, they wear *salwar-kameej*. The *dhoti-kurta* and the *kurta-pyjama* are popular for men in the northern and central parts of India. In Southern India, men wear *lungi*. The *lungi* is known as *veshti* in Tamil Nadu and *mundu* in Kerala. In Gujarat and Rajasthan, men wear an *angarkha* with a *dhoti* or a *pyjama*. In Kashmir men and women wear a long gown called *phiran*.

Some Popular Clothes in India

There are several clothes which are very popular among Indians.

Saree

Saree is a very popular dress in India. Most women like to wear it. However, women of different parts of the country wear it differently.



Bengal



Delhi



Maharashtra



Gujarat

Chunni

A *chunni* is also called the *odhni*, *chunari* or *dupatta*. Like a *saree*, it is an unstitched cloth and is very popular among women. They wear it in many



different styles. Some women cover their face with it while others cover their head. In the state of Assam, women wear *mekhla* wrapped around their waist. They wear it with a *chadar* and blouse.

Turban

A turban is a headgear. People of different parts of the country wear it differently. Turban is made of a long cloth.



Punjab



Haryana



Rajasthan

Dhoti

A *dhoti* is worn by men in different parts of our country. In Punjab and some other parts of the country it is called *lungi* while in Kerala, it is called *mundu*.



mundu



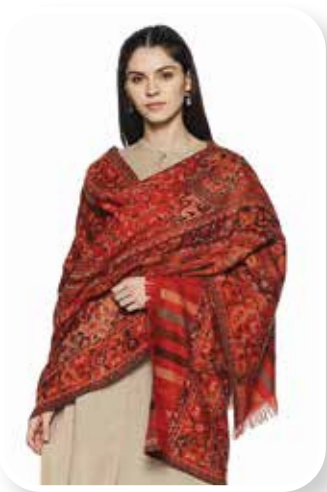
lungi



dhoti

Shawl

Men and women wear shawl in winters to keep themselves warm.



Values

There are people who do not have clothes to cover their bodies. We should donate the clothes which we do not use to such people. In this way, we can make the world a better place.

Word Power

- Tracksuit** : a loose, warm set of clothes consisting of a sweatshirt and trousers with an elasticated or drawstring waist
- Handloom** : a loom powered by hand
- Bandhani** : a type of pattern making art of Rajasthan
- Tradition** : the transmission of customs or beliefs from generation to generation

Summary

- Clothes are one of our basic needs.
- Cloth is made by weaving and knitting.
- After the cloth is ready, it is dyed and patterns are made on it using different methods.
- The type of clothes we wear depends on the climate of the region and our customs and traditions.
- People in different parts of the country wear different types of clothes in different styles.



Practice Time

A. Fill in the blanks.

1. We can weave clothes on a _____.
2. _____ are cut into different shapes to make patterns on cloth.
3. Needle and thread are used to do _____.
4. *Kataki saree* is worn by the women of _____.
5. *Phiran* is worn in the state of _____.

B. Match the following.

- | | |
|-------------------|--------------------|
| 1. Knitting | (a) Headgear |
| 2. Weaving | (b) <i>Mundu</i> |
| 3. <i>Dhoti</i> | (c) Needles |
| 4. <i>Dupatta</i> | (d) Handlooms |
| 5. Turban | (e) <i>Chunari</i> |

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. *Bandhani* belongs to the state of Rajasthan.
2. Block printing is done by wooden blocks.
3. The women of Assam usually wear *salwar-kameez*.
4. The women of Punjab usually wear *saree*.
5. *Chunari* or *dupatta* is an unstitched cloth.

D. Answer the following questions.

1. Define knitting and weaving.
2. What is tie and dye method of printing?
3. How is vegetable printing done?
4. What is the difference in *dupatta* and *saree*?
5. Where is *dhoti* worn?

Brainstorm

We should avoid wearing dirty clothes. Also the use of synthetic clothes is not recommended. Why?

Life Pillars

Clothes make us look elegant and smart. It is a long process during which the fabric is made from fibre. It is important to take care of our clothes. We must wear clean clothes that are properly washed and ironed.

Do to Learn More

Make border designs by vegetable printing.

1. Take ladies finger and cut them into different shapes.
2. Dip the cut vegetable in different colours and on a blank sheet of paper print border along its edges.



Locating a Place



Curricular Goals

- Directions
- Sketch
- Plan
- Map



Directions

To find the location of a place, we must be known to directions. There are four main directions - **east, west, north** and **south**. We can know the directions with the help of a device called a compass. The compass has a magnetic needle which always points to the north.

We can also know the directions with the help of the sun. We know that sun rises in the east and sets in the west. When we stand facing the rising sun in the morning, we face the east. Behind us lies the west, to the right is the south and to the left is the north.

Thus, if you face the rising sun, then,



- East is in front of you.
- West is behind you.
- North is to your left.
- South is to your right.

Need to Know

The word NEWS comes from North, East, West, South.

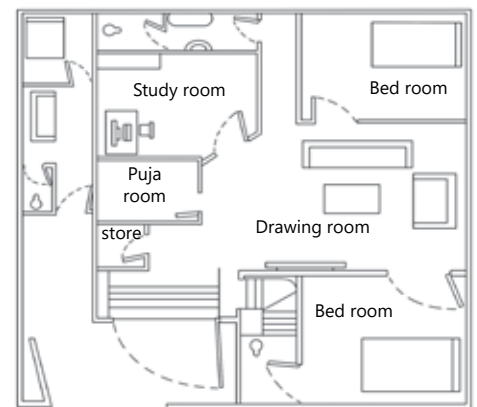
Activity Time

Look at the picture given here. The girl is standing facing the sun. Can you tell the names of the directions?



Sketch

With the help of a sketch, we can find a place easily. Do you know what a sketch is? A sketch is a rough drawing of a place. It usually has some important landmarks. A landmark in a sketch is a place or thing that you can easily recognize. It could be a temple, hospital, canteen, school or cinema hall. Some pictures that represent various places can be drawn on the sketch. They are called symbols on the sketch.



Teacher's Tips

Tell the students about directions, sketch and a map. Also tell them how to locate a place.



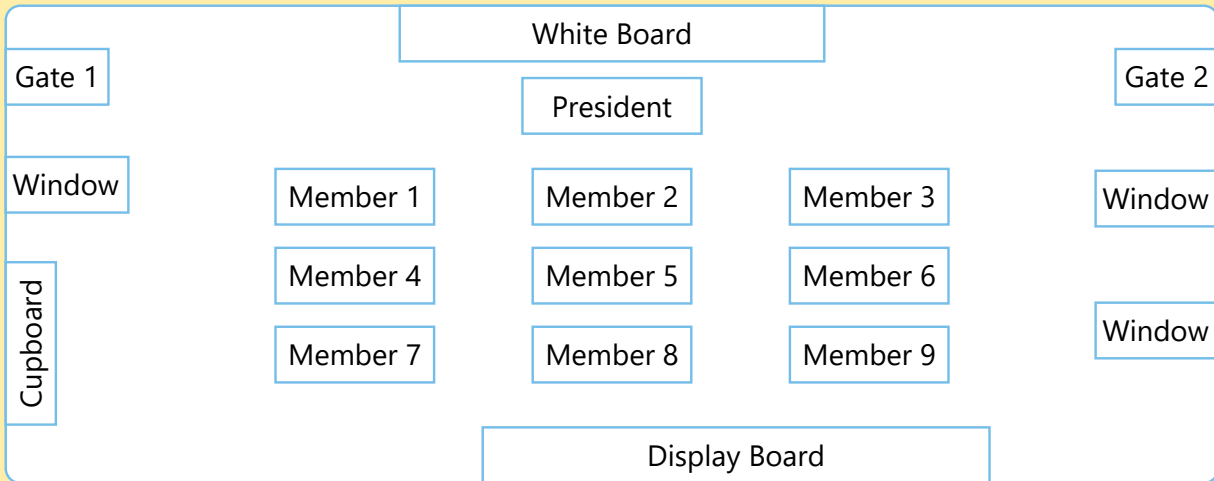
Plan

When a sketch of a place is made by seeing it from the top, it is called a plan. With the help of a plan, we can easily locate houses, buildings and other places.



Activity Time

Given below is the plan of an assembly hall.



Now answer the following questions.

1. What is behind the President's table?
2. How many windows has the assembly hall?
3. Where is the display board?
4. How many gates are there in the assembly hall?
5. How many members are there in the assembly hall?
6. Where are the members sitting?

Map

The drawing or a diagram of a particular place is called a map. A map can show a country, a city, a town or the whole world. The top of a map is the north. The bottom is the south. The left is the west. The right side of the map indicates the east. When a drawing of a place is made after taking actual measurements, it is called a map. A map has correct directions and shows the exact distances between places. Small pictures that represent various places are called symbols. Given along is the map of India showing various states.



Values

When we visit a new place, we should take with us a map of the place. With the help of the map, we can locate the place easily and will not lose our way.

Word Power

- location** : a place where something happens or is situated
compass : a device used to find the directions
sketch : a rough map of a place
plan : a sketch of a place made viewing it from top
map : a drawing of a particular area such as a city, a country, or a continent

Summary

- East, west, north and south are the four main directions.
- A compass is a device used to find the directions.
- A sketch is a rough drawing of a place.
- The top view of a place is called a plan.
- A drawing or a diagram of a particular place is called a map.



Practice Time

A. Fill in the blanks.

1. To find the location of a place we must be known to _____.
2. The top view of a place is called a _____.
3. The rough drawing of a place is called a _____.
4. The bottom of a map shows _____ direction.
5. The sun rises in the _____.

B. Tick (✓) the correct answer.

1. _____ are useful for reading maps.

a. Symbols

b. Paintings

c. Drawings

2. Kerala is in _____ direction of India.
- a. north b. east c. south
3. If you face the rising sun, on your left is
- a. south b. north c. east
4. The sun sets in the
- a. west b. east c. south
5. The compass needle always points towards the
- a. east b. south c. north

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. A plan is the flat view of a place.
2. A map is a diagram of a particular place.
3. The top part of the map shows the south.
4. We can use compass to find directions.
5. East, north and west are the three main directions.

D. Answer the following questions.

1. What are the four main directions?
2. Differentiate between a sketch and a plan?
3. How can we know directions with the help of the sun?
4. How can we locate a place?
5. How are maps useful for us?

Brainstorm

What are the places located in the east, west, north and south of our country?

Find Out

Unscramble the words.

- | | | | |
|----------|-------|----------|-------|
| 1. THRNO | _____ | 4. OHUTS | _____ |
| 2. IGHRT | _____ | 5. EWST | _____ |
| 3. ESTA | _____ | 6. EFTL | _____ |

Fun to Learn

Write the names of your neighbours living.

1. To the left of your house: _____
2. To the right of your house: _____
3. To the front of your house: _____
4. To the behind of your house: _____

Life Pillars

It is very important to be aware about four major directions. It helps us to reach places easily. It also helps us to understand sketches, plans and maps. These days, each city has a map. If you know the directions, locating a place even in a new city will become easy for us.

Life Pillars

You go to school daily. What important places do you see on the way from your home to school? Tell their names. Also make a sketch showing the way to reach the school from your home showing different landmarks. Use the space given below.





Curricular Goals

- How Water Reaches our Houses
- Shape of Water
- How to Store Water
- Handling Water Safely
- The Water Cycle
- Rainwater Harvesting



We get water from various sources. The main source of water on the earth is the **rain**. The rainwater reaches water bodies like rivers, lakes, ponds, seas and oceans. Some of the rainwater seeps into the ground. This water is called the **underground water**. We get underground water through wells, handpumps and tube wells. Water from rivers and lakes is used for watering the crops and for different domestic purposes.



Teacher's Tips

Tell the students about different sources of water and water cycle. Also tell them about rainwater harvesting.



Check Your Knowledge

1. How do you get water at your home?

2. Have you ever used water from a river? When?

How Water Reaches our Houses

Water from rivers, ponds and lakes reaches our houses through pipelines. However, before reaching our houses, it is collected in filter tanks. The water collected in water tanks is purified and made fit for drinking. This purified water is again stored in huge tanks and then it is supplied to our houses. Clean and pure water that is fit for drinking is called **potable water**. Potable water should be clear and should not have any smell. The simplest way to make water potable is to filter it and then boil it. Drinking water should be stored in closed clean containers. We store water in different containers.

Check Your Knowledge

Can boiling make the water fit for drinking?

Shape of Water

Water has no definite shape. It takes the shape of the container it is placed in. Take a jug which is full of water. You will see that the shape of the water is just like the shape of the jug. Now pour the water from the jug into a glass and a bowl. You will notice that the water takes the shape of the glass and the bowl. Different containers can hold different amounts of water. The amount of water which a container can hold is called the volume of the container.



How to Store Water

Water is stored in different containers. In villages, people store water in earthen pots like pitchers. They, sometimes, store water in copper or brass utensils. In cities and towns, water is stored in containers made of steel, aluminium or plastic.

Pause to Do

1. What is the shape of water?

2. How do you store drinking water in your house?

Handling Water Safely

We should store and handle the drinking water very carefully. Careless handling of water may contaminate it and we may fall ill if we drink contaminated water. Always store water in clean containers and keep the containers covered. The containers in which you store water should be cleaned every day. Whenever you need water, take it out from the container with the help of a ladle. Never put your hands into drinking water. Never use water stored for many days for drinking. Instead, you can use it for other purposes like mopping and watering plants.



Need to Know

Another word for water is aqua. Water animals and water plants are called aquatic animals and aquatic plants.

The Water Cycle

Water in water bodies changes into water vapour and rises high in the air. As the water goes higher, it cools and form clouds. When the water droplets become heavy, they fall on the earth as rain. The rainwater again goes into water bodies like lakes, ponds, rivers, seas and oceans. It is called **water cycle**.



Rainwater Harvesting

Freshwater is very scarce on the earth. It is not possible to meet the demand of freshwater because of ever increasing population across the world. Therefore, it is very important to save every drop of water and use it wisely.

Rainwater harvesting is a way of saving water. In this method, the rainwater is collected and stored in underground reservoirs. It is then used for various domestic purposes like watering the plants, washing and bathing.

Word Power

Rainwater	: water obtained from rain
Underground	: that which is below the ground
Purified	: pure
Container	: a pot in which something is stored
Contaminate	: to pollute
Filter	: a device used to remove dirt and other big particles from water
Water cycle	: The cycle of water forming water vapour, clouds and then falling as rain

Summary

- Rain is the main source of water on the earth.
- Rivers, lakes, ponds and seas are examples of surface water bodies.
- Rainwater that seeps into the ground is called underground water.
- Water is purified before it reaches our homes.
- Water has no definite shape. It takes the shape of the container it is poured into.
- We should store water in clean containers.
- We should handle the water properly.
- Water cycle is the change of water into water vapour, clouds and then falling as rain.
- Rainwater harvesting is a method to collect and store rainwater for later use.



Practice Time

A. Fill in the blanks.

1. Water is used for various _____.
2. The main source of water on the earth is the _____.
3. Water from rivers, ponds and lakes reaches our house through _____.

- _____ should be stored in closed containers.
- Water has no definite _____.

B. Choose the correct options.

- What should we do before drinking water?
(a) We should do nothing. (b) We should boil it.
(c) We should first store it in a container and then drink it.
- What is the taste of sea and ocean water?
(a) sweet (b) salty (c) bitter
- Which is the main source of water?
(a) tap (b) pipeline (c) rain
- What is the source of underground water?
(a) rain (b) well (c) tap

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

- We cannot use sea water for domestic purposes.
- Water is round in shape.
- Underground water is found under the ground.
- Water should be stored in clean and covered containers.
- Rainwater harvesting is a way of saving water.

D. Answer the following questions.

- Where do you get water from in your house?
- How do you store water?
- What is rainwater harvesting?
- How can we get underground water?
- How can we make water safe for drinking?

Do to Learn More

Springs are a major source of freshwater. Find out the names of some major springs in our country.



How to Reach Places



Curricular Goals

- Land Transport
- Water Transport
- Air Transport
- Other Means of Transport

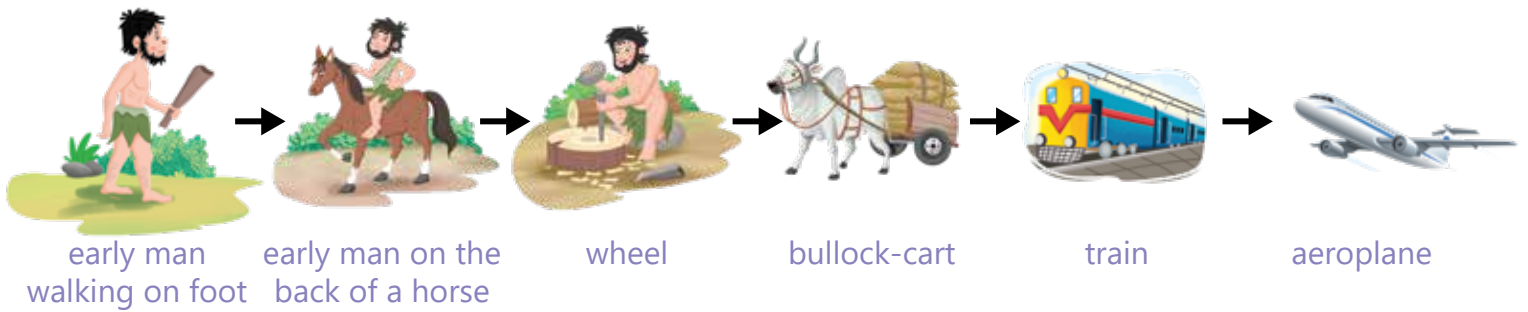


In the early time, man had no means of transport. He had to go from one place to another on foot. In due course of time, he learnt to use animals such as horses, donkeys and camel to go from one place to another. He learnt from his experience and invented wheel.

As the time passed by, the man made different types of carts pulled by different animals like horses and bullocks. Then he made different modern means of transport like trains, cars, bikes, ships, aeroplanes, etc which uses fuels like CNG, diesel and petrol.

Need to Know

The invention of wheel proved to be a revolutionizing point in the life of the early man.



We all need to go from one place to another. We use different vehicles according to the distance of the place. To go to local market we use bikes, scooters or rickshaws. We cover long distances by trains, buses and cars. For going to another country, people use aeroplanes. We need to travel from one place to another for various reasons. Children travel to go to school. People also go to their work place. Some people go to places such as hospital, market and post office. Sometimes people need to go for social gatherings like weddings and birthday parties.

Land Transport

The means of transport that move on land are called the means of land transport. It is the most common means of transport. Vehicles like scooters, cars, buses and trucks are the most common means of land transport. In some villages, people use carts pulled by animals to carry the people and loads from one place to another. For covering very long distances, people use trains. Trains run on tracks from one city to another.



Teacher's Tips



Tell the students about different means of transport and their importance.

Need to Know

Trains carrying people are called passenger trains while the trains carrying goods are called goods train.

In cities like Delhi, Mumbai and Kolkata, Metro trains are used to move from one place to another within the city. They are very popular among the people who go to office.



Air Transport

Transportation of people and goods through air ways is called the air transport. Aeroplanes and helicopter are the major means of air transport. Aeroplane is the fastest means of transport. They are used to carry passengers and goods from the airport. They land and take off from airports. Today, we have air services linking all the important cities in the country and in the world.



Check Your Knowledge

1. What are the major means of air transport?

2. What are the helicopters used for?

Need to Know

Pilots usually control the plane from a cockpit located at the front of the aeroplane.

Water Transport

The means of transportation that run on water are called the means of water transport. Boats, ships and steamers are the means of water transport. Boats are used to transport people and goods across the lakes and rivers. A large ship is called the **liner**. It is used to carry a large number of people to long distances. A **ferry** is a small boat that carry passengers across a river or a short sea route. Submarines are used to carry scientists and soldiers under water.



Need to Know

One of the oldest type of transportation is by boat.

Check Your Knowledge

When will you use the following means of transport? Write below them.



Other Means of Transport

Some other means of transport are as follows.



In forests, people use elephants and in deserts camels are used for transportation.



A postal van is used to carry parcels and letters to different places from the post office.



People in hilly areas use horses and mule to go from one place to another.



An ambulance is used to carry sick or injured people to hospitals.



A police jeep carries policemen.



A fire engine is used to put out fires.

Values

Trains are used by many people in India. We should help to keep the trains and railway stations clean.

Word Power

invent	: make something new
revolutionizing	: change radically or fundamentally
social gathering	: a gathering for the purpose of promoting fellowship
load	: weight to be borne or conveyed
passenger train	: the train that carries passengers
goods train	: the train that carries goods

Summary

- All people move from one place to another for various reasons.
- In the early time, there were no means of transport like today. The early man moved from one place to another on foot.
- The invention of the wheel brought a revolutionizing change in the means of transport.
- Trains, cars, buses and cycles are the means of land transport.
- Ships, boats and steamers are the examples of water transport.
- Aeroplanes and helicopters are the means of transport.
- Some special means of transport are ambulance, fire engine, police jeep and postal van.



Practice Time

A. Fill in the blanks.

1. I go to my uncle's home by a _____.
2. Man learnt to use animals like _____ and _____ as the means of transport.
3. A steamer is the means of _____.
4. _____ travel under the water.
5. Elephants are used as the means of transport in _____.

B. Tick (✓) the correct answer.

- Metro is the means of
(a) land transport (b) water transport (c) air transport
- Camel is used as the means of transport in
(a) deserts (b) hilly areas (c) forests
- The means of transport used in the forest is
(a) horse (b) camel (c) elephant
- The most common means of transport is
(a) water transport (b) land transport (c) air transport
- Aeroplanes land and take off from an
(a) port (b) railway station (c) airport

C. Mark (✓) for a correct statement and (✗) for an incorrect statement.

- An ambulance carries sick people to the hospital.
- A fire engine carries letters from the post office to different places.
- Petrol and diesel are fuels for engines.
- Ships move on water.
- We cover long distances with a rickshaw.

D. Answer the following questions.

- What do you mean by land transport?
- Which animals are used as the means of transport?
- What are the different types of trains?
- What do you mean by water transport?
- Write the advantages of air transport?

Brainstorm

While going in a bus or some other vehicle, we should never put our head or hand outside. Discuss why?

Find Out

There are special modes of transport which help us when we are in trouble. Can you tell the names of some such modes of transport?

Fun to Learn

With the help of your parents, make paper planes of different colours and display them in the classroom.

Life Pillars

Means of transport are public property. They made our life easy. We should not harm or misuse them in any way. It's not good to tear the seats of any vehicle we are travelling in.

Do to Learn More

Which means of transport will you use in each of the following cases?

1. You want to go to your school. You will take a _____ to reach the school.
2. You want to visit your grandparents living in another city. You will take a _____ to meet them.
3. You want to go to market to purchase vegetables. You will take a _____.
4. You want to go to visit your uncle living in another country. You will take a/an _____.
5. Your mother wants to go to a market close by. You will ask her to take a/an _____ to do shopping.
6. Your friend wants to go to Gurugram from Delhi. You will suggest him to take a _____.



How We Communicate



Curricular Goals

- Telephones
- Journey of a Letter
- Communicating Through Sign Language
- Postal Communication
- Mass Communication



Expressing our ideas by speaking, writing or using signs and sounds is called **communication**. There are several means of communication like telephone, letters, radio, television, Internet and newspaper.

Telephones

With the help of telephone, we can talk to a person at some other place and having a telephone by just dialling a number. It is the fastest and the most useful means of communication. Telephone networks are widened all over the world. In the present time, mobile phones are very widespread. We can carry them to any place we go.



Postal Communication

Postal communication has been the most common mode of communication. We can send postcards, inland letters and letters in stamped envelopes through a post office. They are all the means of postal communication. We can also use aerogrammes to send letters abroad. If we wish to reach the letter at its correct place, we need to write the address and area pin code of the person to whom we have to send a letter on the cover. There are courier services and speed post if we want to send our message quickly.

Email

We can use email facility if we want to send our written message quickly. An email is the fastest way of sending written messages and photographs. Emails are sent through a computer. All computers across the globe are linked through the Internet.



Fax Machine

A fax machine is like sending a letter through your phones. It sends an exact copy of your message in form of an electronic letter through telephone.

Teacher's Tips



Tell the students about different means of communication. Also tell them about how a letter reaches its destination.

Activity Time

Send an email to your friend telling inviting him on your birthday party.



Need to Know

India has the world's biggest postal system.



Journey of a Letter

- We purchase a letter or postcard from the post office and write the message on it which we want to send.
- We write the address correctly and put our letter in a letter box. Now, our job is done! Now the postal department will start working.
- The postman takes out the letter from the letter box at fixed times.



- After collecting the letters from the letter box, the postman carries the letter to the post office where they are sorted as per their address.
- Thereafter, the letter are sent to the states and places by road, rail, air or water transport.
- After reaching the post office of that state the letters are again sorted as per the cities and villages written on them.
- Then they are sent to the area post offices.
- From the post office, the postman collects the letter and delivers it to their respective address.



Need to Know

Chandragupta Maurya was the first Indian emperor to be delineated on an Indian Postal Stamp.

Mass Communication

When we communicate to a large number of people at the same time, it is called **mass communication**. There are several means of mass communication.

Newspaper

A newspaper is a very popular means of mass communication. It has news, articles and advertisements on different topics. They are printed in many languages like Hindi, English, Urdu, Malayalam, Kannada and so on. They have the news about our country and other countries.



Radio

Radio is one of the most popular means of mass communication. With the help of a radio we can listen news, songs and other programmes. On radio, different programmes are broadcasted on different times.



Television

Television is also a means of mass communication. On the television, we can not only hear the sound but also see pictures.



Internet

Nowadays, Internet is being widely used for getting information about anything across the globe.

Communicating Through Sign Language

Some people cannot speak or hear. They communicate through sign language. There are 26 hand symbols in sign language. Each symbol indicates one letter of the alphabet. To understand what a person is saying, they observe the lip movements of the speaker.

Dancers also use different hand gestures, and postures and body movements called **mudras** to express different things.



Values

Watching television for long hours can harm our eye. Therefore, watch television for limited hours.

Word Power

communication	: the activity of conveying information
network	: a group or system of interconnected people or things
widespread	: distributed over a considerable extent
aerogrammes	: a letter sent by air mail
destination	: the place to which someone or something is being sent
mass communication	: communicating with a large number of people at a time

Summary

- The fastest means of communication is the telephone and cellular phone.
- Postcards, inland letters, aerogrammes and stamped envelopes are the means of postal communication.
- We can send our letters and parcels through courier services and speed post for their quick delivery.
- Email is the fastest way to send written messages.
- The major means of mass communication are newspaper, radio, television and Internet.



Practice Time

A. Fill in the blanks.

1. Mostly, we express our ideas by _____ and _____.
2. _____ is the quickest means of communication.
3. _____ is a means of mass communication.
4. _____ has been the most common means of communication.
5. An _____ is the fastest means of sending written message.

B. Tick (✓) the correct answers.

1. It is used to send letters abroad.
(a) aerogramme (b) postcard (c) inland letter
2. It is the quickest means of communication.
(a) television (b) radio (c) telephone

3. It is a means of mass communication.

(a) letter (b) newspaper (c) telephone

4. We can only listen on it.

(a) television (b) radio (c) none of these

5. The number of hand symbols in sign language is

(a) 25 (b) 26 (c) 27

D. Mark (✓) for a correct statement and (✗) for an incorrect statement.

1. We can get postcards, inland letters and stamps from a police station.

2. Telephone is the latest and fastest means of written communication.

3. Courier is used to send money quickly.

4. Newspapers are printed in many languages.

5. Sign language is used by dumb or deaf people to express their feelings.

E. Answer the following questions.

1. What do you mean by communication?

2. What are the various means of communication?

3. Write the two means of mass communication?

4. Who uses sign language?

5. What is the use of courier and speed post?

Life Pillars

It is not a good habit to read others' letters and emails. Neither we should disturb others by calling them over telephone in odd hours.

Do to Learn More

Visit a nearby post office. Find out how it does all its activities.



Test Paper - 1

A. Fill in the blanks.

1. A _____ person is a physically challenged person.
2. The leaves of banana plant are used as _____ to serve food.
3. A spider has _____ legs.
4. Milk and its products are _____ food.
5. Doctors and nurses treat patients at _____.

B. Choose the correct options.

1. A person who is visually challenged is unable to
(a) hear (b) feel (c) see
2. He is a cricket player
(a) Sachin Tendulkar (b) Sania Mirza (c) Baichung Bhutia
3. It is an ancient game
(a) gulli-danda (b) video game (c) polo
4. Special homes where old people live are called
(a) orphanages (b) old age homes (c) special homes
5. A pucca house is made up of
(a) bricks (b) grass (c) mud

C. Write T for true and F for false statements.

1. Teak is a desert plant.
2. Leaves of some plants have peculiar smell.
3. Family members take care of each other.
4. Chess is an outdoor game.
5. Houseflies contaminate our food.

D. Answer the following questions.

1. What are the similarities between you and your parents?
2. What do plants need to make their food?
3. When do plants shed their leaves?
4. What are flightless birds? Why can they not fly?
5. How are beaks useful to birds?



Test Paper - 2

A. Fill in the blanks.

1. To find the location of a place we must be known to _____.
2. About _____ per cent of the earth is covered with water.
3. Water from rivers, ponds and lakes reaches our house through _____.
4. _____ are cut into different shapes to make patterns on cloth.
5. _____ is the quickest means of communication.

B. Match the following.

- | | |
|-----------------------|------------------------|
| 1. Bungalow | (a) Mass communication |
| 2. Biscuit | (b) Energy-giving food |
| 3. Sugar and potatoes | (c) Pucca house |
| 4. Television | (d) Park |
| 5. Gardener | (e) Baking |

C. Write T for true and F for false statements.

1. Tulsi and Neem have medicinal value.
2. Cereals have proteins that help to repair body parts.
3. Chapattis are made by boiling method of cooking.
4. The top part of the map shows the south.
5. We should close the tap while brushing our teeth.

D. Answer the following questions.

1. What are spices? Why do we use them?
2. How can we know directions with the help of the sun?
3. What animals are used as the means of transport?
4. Write two means of mass communication?
5. What is tie and dye method of printing?