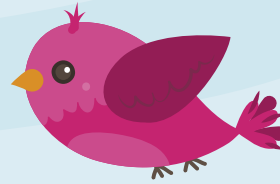


Environmental Studies

For Class 4

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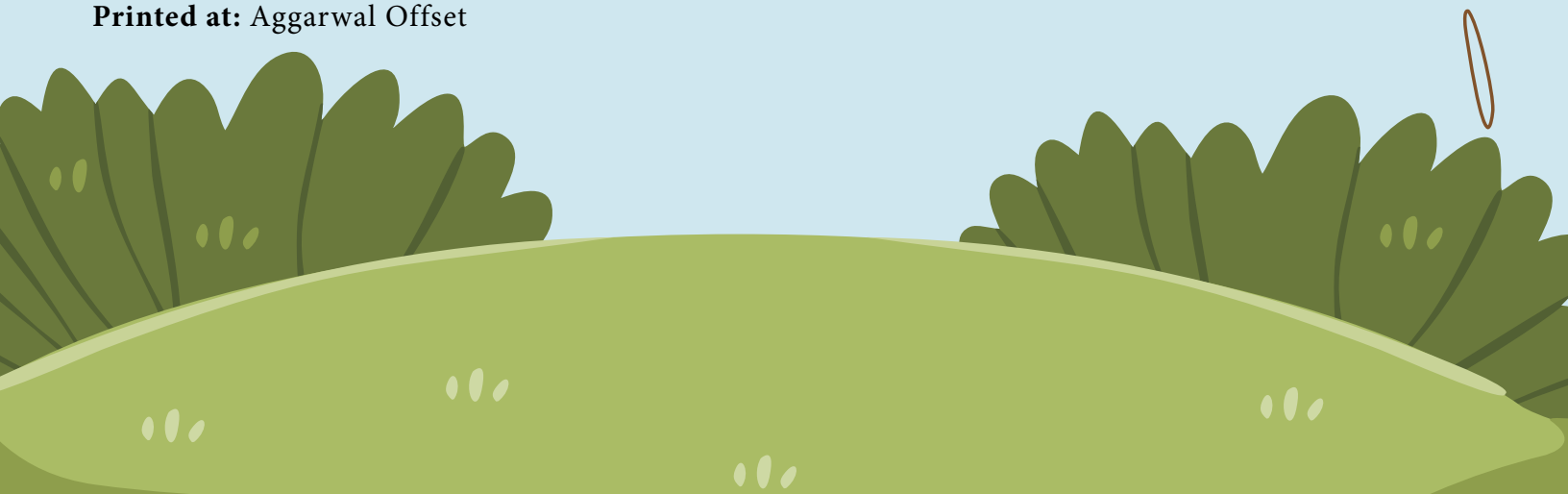
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Preface



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.

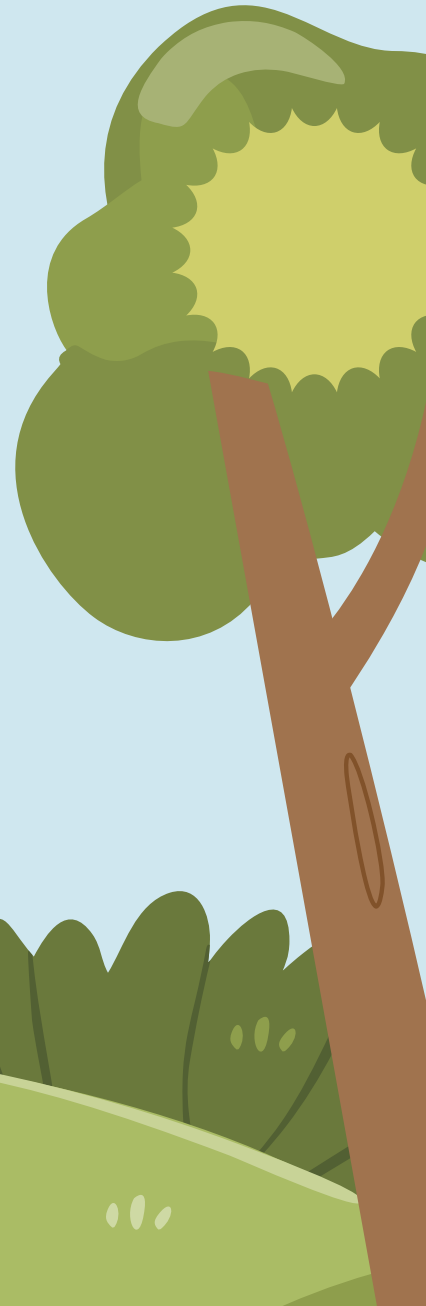
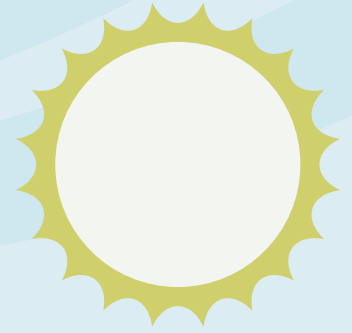
The various features in each chapter contain a set of tasks which help to develop soft skills such as thinking skills, creative skills, observation and communication skills.

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 Family

Curricular Goals

- A Family Tree
- F oster Parents
- We Change as We Grow
- Family Values and Traditions
- How a Baby Takes Birth



Family is the basic unit of society. There are two types of families— nuclear families and joint families. Families which consist of a father, a mother and one or more children are called **nuclear families**. Families which consist of parents, children, grandparents, uncles, aunts and cousins are called **joint families**.



nuclear family

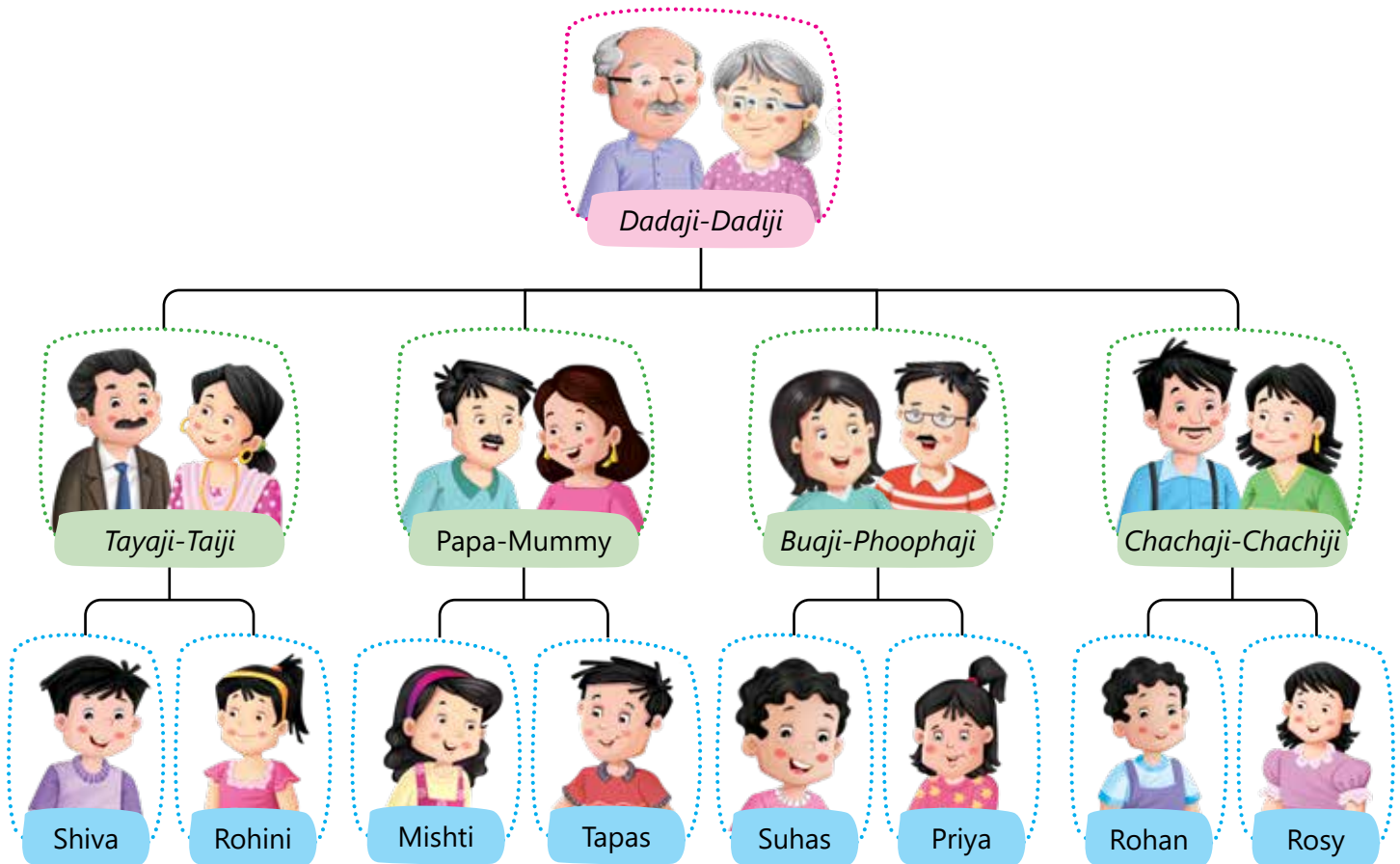


joint family

A Family Tree

A family tree is a chart that shows the genealogical relationships and lines of descent of a family. It is also called genealogical tree. It helps us to understand the relationship between the different members of the family.

Our relatives from our father's side are called paternal relatives while those from our mother's side are called our maternal relatives. Given below is the Mishti's paternal family tree.



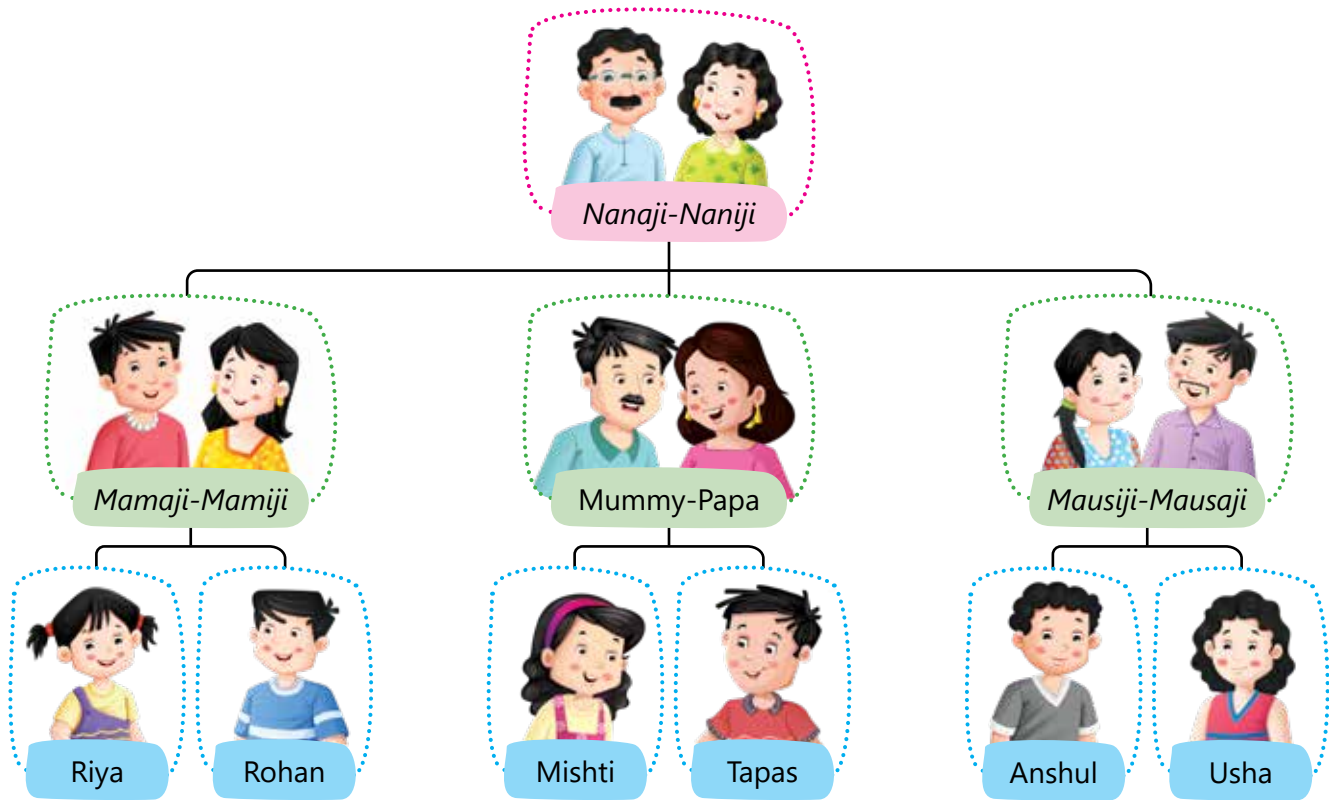
Check Your Knowledge

1. What is your cousin's name?

2. How many members are there in your paternal family?

3. How many members are there in your maternal family?

Now, let's see Mishti's maternal family tree.



Teacher's Tips



Tell the students about a family tree and change in behaviour and appearance of children as they grow. Also tell them about how a child takes birth.

Need to Know

A family tree is also termed as an ancestral tree.

We Change as We Grow

In summer vacation, Mishti went to her *nani's* house. One day while sitting in a room, *nani* showed Mishti her mother's childhood photograph. Mishti was amazed to see that her mother looked completely different. *Nani* told her that our look, appearance and habits change as we grow with the passage of time.



Check Your Knowledge

1. Who is your best friend? _____
2. How many members are there in his/her family? _____

Naniji also told her that theirs was a **joint family**. Her mother lived with all her uncles, aunts and grandparents.

They all lived in a large house and shared each other's work, joys and sorrows. They enjoyed all the festivals and other celebrations like weddings, birthday parties and marriage anniversaries together. Mishti's mother studied and played with her cousins. The games they played were not same as Mishti and her brother play these days.

Every child whether a boy or a girl grows into an adult. They are married when they come of their age. After a certain period of marriage, they have babies. Boys become fathers and girls become mothers.

How a Baby Takes Birth

A baby takes birth from the body of his/her mother. They remain in the body of the mother for nine months. For all this period of nine months, the baby feeds on the body of his/her mother through a tube (cord) that joins the baby to the mother. The mother can sense the movement and growth of the baby inside her body. After staying in his/her mother's body for nine months or so, the baby takes birth. After birth, the baby is taken care of all the needs by the mother. Other family members also help her in performing her responsibilities. The mother feeds the baby and keeps him/her safe from all adversities.



Need to Know

Inside the mother, the baby remains in the womb which is a bag-like structure.

Animals such as cows, dogs, goats, cats, elephants and others also give birth to their young ones. They feed their young ones with their milk. Such animals are called mammals. Birds such as hens, ducks, pigeons etc. lay eggs. After some time, babies come out from the eggs. A baby grows inside the egg and when it is ready to come out, it breaks the egg shell.



Foster Parents

The family members may be related to each other by birth, by marriage or by adoption. Do you know what adoption is? When people become legal parents of a child who was not born to them, it is called adoption.



There are also people who help in bringing up a child for a few months or years. They do not adopt the child legally. They are called **foster parents** and the child is referred as their foster child. The adopted child become the member of the family and gets all the love and care, he/she needs from the family. People adopt a child because of the following reasons.

- Because of many reasons like natural disasters, some children are left without parents. They are adopted by some people.
- There are couples who do not bear children because of some reasons. Such couples adopt a child.

Family Values and Traditions

Every family has some values and traditions. These values are passed from generation to generation and seldom change. These values help us to become a good individual. Similarly, family rituals and practices are passed on from one **generation** to another. They become our family traditions. Most families like to preserve these rituals and practices. Shreya's family has a special tradition. They distribute sweets, clothes, toys and books at an orphanage on New Year's Eve every year.

It's Activity Time

Are there any member in your family whom you have never met? Ask their names from your parents and also find out their photographs. Paste their photographs in the space given below along with their names.

Paste Here

Paste Here

Values

We should obey our parents and elders. It makes them happy and they will love you a lot. Everyone appreciates the child who obey their elders.

Word Power

- safe** : free from hurt, injury, danger, or risk
- genealogical** : related to the history of the past and present members of a family
- paternal relatives** : relatives from the side of father
- maternal relatives** : relatives from the side of mother
- adult** : a fully grown person

Summary

- There are two types of families-nuclear family and joint family.
- We can understand the relationships between different members of the family with the help of a family tree.
- In her childhood, your mother lived with her family of your *nanaji* and *naniji*.
- A baby remains inside his/her mother's body for about nine months.
- Animals that give birth to babies and feed them milk are called mammals.
- Birds lay eggs and after a certain period baby birds come out of the eggs.
- Through the process of adoption, people become legal parents of a child who was not born to them.
- The people who help in bringing up a child for a few months or years are called foster parents.
- Family values and traditions are passed on from one generation to another.



Practice Time

A. Fill in the blanks.

1. The family from your father's side is called _____ family.
2. The family from your mother's side is called _____ family.
3. _____ lay eggs.
4. A baby comes from his/her _____ body.
5. The animals which give birth to babies and feed them with milk are called _____.

B. Match the following.

- | | |
|-------------------------------|----------------------|
| 1. Your maternal grandparents | (a) cousin |
| 2. Your uncle's son | (b) <i>mausi</i> |
| 3. Your father's sister | (c) <i>nana-nani</i> |
| 4. Your mother's sister | (d) <i>chacha</i> |
| 5. Your father's brother | (e) <i>bua</i> |

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

1. A family tree shows all the relatives of mother and father.
2. Adoption is the process of legally taking a child as daughter or son.
3. A girl becomes a mother after she has grown up and gets married.
4. Animals do not give birth to young ones.
5. A duck and a hen lay eggs.

D. Answer the following questions.







1. What do you understand by a family tree?
2. What is adoption?
3. How does a baby take birth?
4. Who is called an adopted child?
5. Who are called foster parents?







Brainstorm

Imagine your parents have adopted a child. How will you behave with him/her?

Find Out

Match the animals with their young ones.

1. 
2. 
3. 
4. 
5. 
6. 

- a. 
- b. 
- c. 
- d. 
- e. 
- f. 

Fun to Learn

Circle the animals that lay eggs with red crayon and those that give birth to babies with green crayons.



Life Pillars

Animals also love their babies like human beings. It is, therefore, our duty not to separate animals from their babies. Instead, we should try to feed them and take care of them as much as we can do.

Do to Learn More

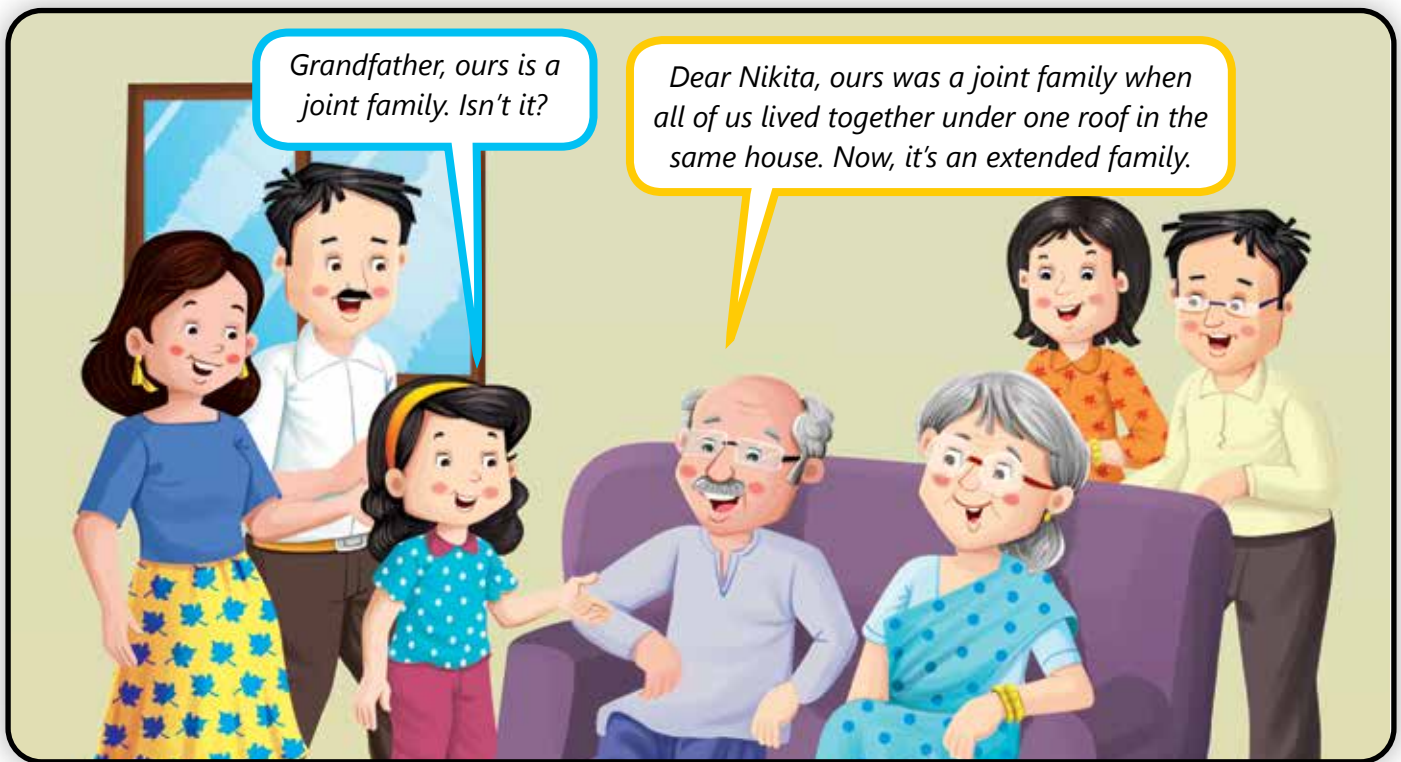
Find out and write about your mother as to where she lived, where she studied, what games she played, who were her best friends and so on. Discuss with your mother before you start writing.

2

Extended Family

Curricular Goals

- Family Members and Get-togethers
- Changes in Family Structure
- Role of Family
- Decision-Making
- What We Learn from the Family



The family in which only parents and children live together under one roof is called an **immediate family**. Imagine you have four members in your family—you, your brother or sister, your father and your mother. All of you live together under one roof. So yours is an immediate family. An **extended family** or a **multi-generation family**, on the other hand, includes grandparents, uncles, aunts and their children. The members of an extended family may live in another city, village or country.



Family Members and Get-togethers

The members of an extended family do not live together. They meet each other occasionally when there is some wedding party, birthday party or any other celebration or function in the family. The members of the family go on picnics and holiday trips together. They share their joys and sorrows with each other.

Family gatherings are very important to keep the family united. They bring the members of the family close and inculcate in them the feeling of respect for each other. They strengthen the bonds between the family members. Get-togethers give them opportunity to share their beliefs and ideas with each other.



Role of Family

Our family is very important for us. It plays an important role in shaping our personality. We learn many good values in our family which help us get success in our life. Actually, it is the place where a person's foundation is established. It helps us to become known to our culture and society along with the family traditions. Strong family ties and bonds provide us with the love and security necessary for a happy life.

What We Learn from the Family

Every family lives in a home which is the centre of all family activities. Parents, grandparents and elder brothers or sisters take care of children. They help the children in many ways like by playing with them and helping them in their studies. Children learn **good manners** from their elders.

They also learn how to respect elders, and be polite and courteous with others. Elders also teach them how to help other family members and how to behave the people visiting the home.



Teacher's Tips.....



Tell the students about an immediate and extended family. Also tell what they learn from the family and what role their family plays in building their fortune.



All the work in a family is shared by every family member. The elders of the family are the role models for the children in the family. Children try to do what the elders do. If the elders follow good manners and give importance to good values, the children also do the same. Discipline in life is very important to get success. Children learn discipline from their family members.

Changes in Family Structure

The family structure in the present time is much different from that in the past. In the past, only the father was the person who went for a job or did some business to earn money to fulfill the needs of the family. Mother did household work and took care of the children at home. However, in the present time, the whole scenario has changed. Now in most family both the father and mother earn money for fulfilling the needs of the family. Both of them take care of children and do the household work. In the families in which both the parents are working, they take help of maids, servants or creches to look after their children. In many joint families, the grandparents or other family members take care of the children.



Need to Know

Our family is our first school.

Decision-Making

It has been a tradition in our society that father alone takes the major family decisions. He is considered the head of the family. In case of joint families, the decision is taken by the eldest male. However, in some families all elders whether male or females work together to take an important decision.



Values

Every family has different family values and follow different traditions, customs and religions.

Word Power

- immediate family** : the family in which members live together under one roof
- extended family** : the family in which members live in different villages, cities or countries
- get-together** : meeting of people for enjoying some occasion
- strengthen** : to make strong
- foundation** : the basis on which something is grounded

Summary

- The immediate family is formed by mother, father and their children living together in a house.
- An extended family is the family whose members live in separate homes, in another village, city or country.
- Family gatherings are very important as they bring family members close and teach them to respect one another.
- We learn good values and discipline from our families.
- All family members share work and responsibilities.
- All family members should take part in decision-making.



Practice Time

A. Fill in the blanks.

1. An extended family includes _____.
2. An immediate family includes _____.
3. The members of an _____ meet each other occasionally on some special occasion.
4. In past time, mother in the family did only _____ work.
5. The head of your family is your _____.

B. Choose the correct options.

1. What is the family in which children and parents live under one roof called?
(a) Extended family (b) Immediate family (c) Joint family
2. What is the family whose members live in another city or village?
(a) Extended family (b) Immediate family (c) Joint family

3. What is important to keep the family united?
 (a) family quarrels (b) family gatherings (c) public gatherings
4. Where is a person's foundation established?
 (a) market (b) family (c) school

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

1. It is very important to meet family members.
2. Nowadays, females do not go to offices to work.
3. We should not share joys and sorrows with family members.
4. Children should help the family members in doing their work.
5. A family has no role to play in the society.

D. Answer the following questions.

1. What is an immediate family?
2. What is an extended family?
3. What roles does a family play?
4. How do your grandparents help you?
5. Where does your uncles and aunts live?

Life Pillars

Our society is based on the family values such as love, cooperation, discipline, commitment and unselfishness. We should be respectful for these values.

Do to Learn More

What do you call the following persons of your family?

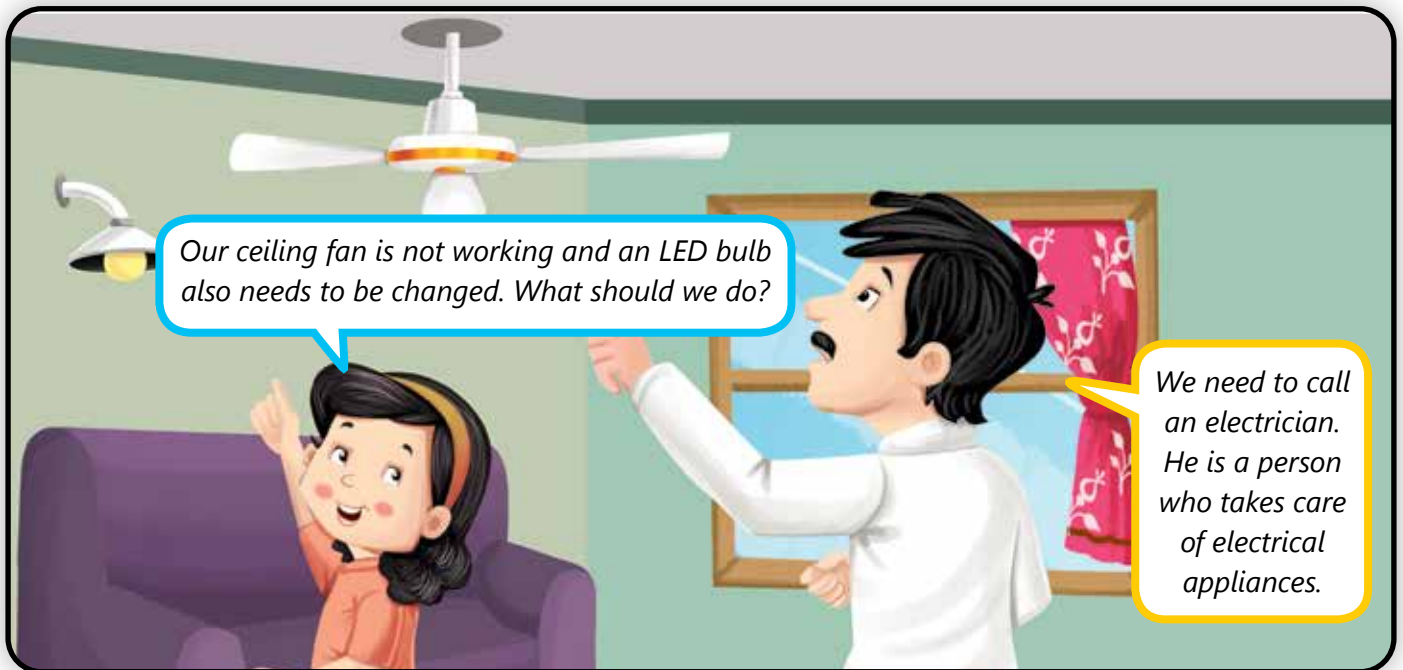
1. Paternal grandfather _____
2. Paternal grandmother _____
3. Paternal uncle _____
5. Maternal grandfather _____
6. Maternal grandmother _____

3

Skilful People

Curricular Goals

- Some Professionals
- Some Other Professionals
- Gender and Work



Some Professionals

Different people do different types of work. Given below are some professionals.

Look at the person given alongside. Can you tell who is he and what he is doing? He is a **potter**. He is making pots. A potter uses wet clay to make pots, *diyas* and lamps. He uses a potter's wheel to make pots. He shapes the pots with his hands. He has learnt the skill of making pots from his father. He uses a knife to decorate and carve designs on the pots.



Now identify this person. He is a **tailor**. He stitches clothes with the help of a needle, thread and sewing machine. His elder brother taught him how to stitch clothes when he was only a child. Now both of them run a tailoring shop and stitch both gents and ladies' clothes.



This person is a **cobbler**. He not only mends but also makes the shoes. He uses hammer, needle, nails, thread and an awl to do his work. He learnt his work from his neighbour who is also a cobbler.

Need to Know

Zardozi is a type of embroidery.

She is an **embroiderer**. She uses needles, wooden frame and thread to do his work. With the help of threads of different colours, she makes beautiful designs and patterns on various kinds of fabrics. Her grandmother taught her how to make embroidery.



He is a **cycle mechanic** and repairs cycles. He learnt this skill from his uncle. He uses tools like spanner, screwdriver and cycle pump.

Look at this person. He is an **engineer**. He makes sketches of buildings, flyovers and bridges. He studied in an engineering college and got an engineering degree.



He is a **bus driver**. He learnt how to drive a bus from a driving school and then he got a driving license. Now he drives a school bus and brings school children from their homes to school in the morning and then from school to their homes when the school finishes.



Check Your Knowledge

Can you name some people who help you in your daily life?

He is a **doctor**. He obtained his degree from a medical college. He treats the sick. A nurse assists him in doing his work.

Teacher's Tips



Tell the students about different people and their skills to make things. Also tell them about different professions.



Activity Time

Identify the following helpers and write their common names below each picture.



Some Other Professionals

Sculptor

The person who makes objects of art using wood, clay, metal or stone is called a sculptor. Sculptors learn their art in an **art school** and use tools like hammer and chisel.



Journalist

A journalist is a person who writes news stories and articles in magazines and newspapers. A **journalism school** or a school of mass communication teaches students journalism. A journalist also present news on TV.



Disc Jockey

A person who plays music in a party or some event is called a disc Jockey or a DJ in short. He/She plays music as per the wish of people.

Need to Know

Fanindranath Bose was a famous sculptor of our country.

Defence

Defence indicates the **army, navy** or **air force**. There are different training schools for different branches of army. Army, navy and air force have their own forces. They protect the country and also help in many problems in the country like accidents and natural calamities.



Fashion Designer

A fashion designer is the person who designs clothes and other things such as bags, shoes, belts and jewellery. They design these things as per the latest and most popular styles. Some of them also create new styles. They learn their skill in **fashion designing institutes**.

Gender and Work

There was a time when most of the jobs were done by men. They attained the skills required for the job from their fathers and grandfathers. Some of the people also learnt these skills from other people. Most of the women did household work. They learnt their



skills from their mothers and grandmothers. But now the scenario is different. In the present day time, no job or occupation is limited to only women or men. Now women are doing most of the job which were earlier considered fit for the men only. Men are also doing the work which were considered fit for women only. Women doctors, pilots, soldiers, engineers and so on are very common these days.

Values

A person who has some skill is very useful. He/she helps us in doing our work. We should be respectful for him/her.

Word Power

- skill** : expertise
- driving license** : a card confirming that the holder has the ability of driving a vehicle
- professional** : one who is engaged in a profession

Summary

- There are a number of people in our neighbourhood who helps us in many ways.
- Every professional has some skill. He learns these skills from a training institute, friends, or some family member.
- Nowadays both men and women do all types of work. No work is meant just for women or men.



Practice Time

A. Fill in the blanks.

1. The person who stitches our clothes is called a _____.
2. A _____ mends or makes shoes.
3. An _____ makes sketches of different types of buildings, flyovers and bridges.
4. A _____ makes different types of idols.
5. An _____ makes patterns and designs on different types of fabrics.

B. Match the following.

Helpers

1. Potter
2. Tailor
3. Sculptor
4. Cycle mechanic
5. Cobbler

Objects

- (a) Needle
- (b) Spanner
- (c) Nails
- (d) Potter's wheel
- (e) Chisel

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

1. An engineer makes our clothes.
2. A driver does not need any license.
3. A cobbler writes news stories and articles.
4. A fashion designer designs clothes.
5. A disc jockey plays music at different events and parties.

D. Answer the following questions.

1. How does a potter make different types of pots?

2. How does a doctor help us?
3. How is the situation of gender and work changing?
4. What is the work of a journalist?
5. What does your father do?

Brainstorm

Different professionals use different types of tools. What is the importance of tools for them?

Find Out

Find out and write one example of each of the following.

1. A popular fashion designing institute
2. A famous doctor of your town
3. A woman social worker of our country
4. A woman astronaut of our country

Fun to Learn

Collect the pictures of few persons who help us in our daily life. Paste them in your notebook and write their names below them.

Life Pillars

Every professional is very important for our society. We should not disrespect them on the basis of the work they do.

Do to Learn More

With your parents visit a sculptor and notice how he does all his work and which tools he uses.

4

Recreation

Curricular Goals

- Games and Sports
- Fun and Fights at Play
- Playing Together
- Other Means of Recreation



When we are tired of continuous working or bored of doing something again and again, we need to have some relax and fun. We can enjoy ourselves in many ways as mentioned below.

Games and Sports

Everyone likes to play games. Games and sports make us refresh and we feel relaxed and energetic after playing games. There are two type of games—**outdoor games** and **indoor games**.



indoor games

Cricket, hockey and football are outdoor games while chess, *carrom* and ludo are indoor games.

We play different types of games at our school. We play basketball, football, lawn tennis, *kho-kho* and others. There is a playground in the school where all the students go to play games. In some schools, there are coaches which guide the students while playing. They also tell them the rules of the games.



outdoor games

At our home, we play games like *carrom*, chess and ludo. Computer games and video games are also very popular among the children.



We can see some children playing with tops or *lattoos* of different shapes and sizes. The most common tops come in pear shape.

Some children also enjoy themselves by reading books, gardening, listening to music and watching television.



Playing Together

Everyone loves to play with friends and family members because playing together with them is fun. Besides, when we play together, it builds in us an understanding, respect, confidence and harmony. While playing together, we should take care that everyone of us actively participates in the game. Don't leave anyone of your friends. We should remember that no game is especially just for boys or girls. Both of them can play all games together.



Fun and Fights at Play

Games and sports play an important role in our life. They are a great means of recreation and relaxation. Besides keeping us fit, they also provide us fun and enjoyment. Children playing together enjoy a lot. However, sometimes playing together leads to fights and misunderstandings. Some children start shouting and bullying other children. It is not good to fight with each other. We should play fair games and avoid any quarrel and fight.



Other Means of Recreation

Besides games and sports, there are also some other means of recreation as given below.

Kite-flying

It is very popular means of recreation in our country. On the occasion of some festivals such as Raksha Bandhan, Makar Sankranti and Independence Day, people fly kites.



Circus

Circus is also a very important means of recreation. There are clowns, trapeze artists and acrobats in a circus. They all perform various feats to entertain people.

Fair

On the occasions of some festivals like Diwali, Christmas, New Year and Dussehra, there are held fairs or *melas* in open grounds. Fairs have lots of rides, games, food, toys and many other fun activities. *Kumbh Mela* and *Pushkar Mela* are famous throughout the world. Thousands of people come to visit these fairs.

Indian International Trade Fair, Surajkund Crafts *Mela*, Book Fair and Auto Fair are very famous fairs of India. They run for many weeks.



Puppet Show

A small figure of a doll, animal or human being made of cloth is called a **puppet**. A person moves them with the help of strings attached to the body parts of the puppets. The art of moving and making puppets is called **puppetry**.

The person who moves the puppets and speaks and sings is called a **puppeteer**. This is a very old form of entertainment which is very popular with village people. Through puppet shows, various popular stories like Ramayana, Mahabharata and others are depicted by the puppeteers. Puppet shows are also used to convey important messages like the importance of a small family or a girl child or education.



Values

We should try to avoid fights and quarrel with our friends while playing. Games and sports teach us to compromise with each other and stand-up for one another. Unhealthy fights result in teasing and discomfort.

Word Power

- Recreation** : the activity which makes us feel relaxed and active
- Relaxed** : being free from tension or stress
- Playground** : the ground where we play games
- Harmony** : agreement
- Puppet** : a small figure of a person operated from above with strings by a puppeteer

Summary

- When we do something to have fun and relax, it is called recreation.
- Games and sports make us healthy, fit and active.
- We can play indoor or outdoor games.
- We should play together with our friends.
- We should not fight with each other while playing.
- We should follow the rules of game.
- Besides games, there are several other means of recreation like kite-flying, going to circus, puppet shows and fairs.



Practice Time

A. Fill in the blanks.

1. When we do something for fun and to relax, it is called _____.
2. People enjoy kite-flying on the occasions like _____ and _____.
3. A small figure of a doll, animal or human being made of cloth is called a _____.
4. Puppet shows are very popular with _____.
5. *Kumbh Mela* and _____ *Mela* are famous throughout the world.

B. Choose the correct options.

1. A game which we can play inside our house.
(a) indoor game (b) outdoor game (c) both of these
2. A game which we can play outside our house.
(a) indoor game (b) outdoor game (c) none of these
3. We should play game with
(a) quarrel (b) harmony (c) fighting
4. The place where we can see clowns and acrobats.
(a) zoo (b) park (c) circus

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

1. Entertainment and fun is not necessary for us.
2. Ludo is an outdoor game.
3. Chess is an indoor game.
4. Kite flying is very popular means of recreation in our country.
5. We should fight with our friends while playing.

C. Answer the following questions.

1. What do you mean by recreation?
2. Differentiate between outdoor and indoor games.
3. What are the benefits of playing together?
4. Write the names of your favourite means of recreation?
5. Who is a puppeteer?

Brainstorm

There was a time when it was considered that games and sports are meant for boys only. However, nowadays girls also play all the games. Should girls be given an equal and fair opportunity to play any game? Why?

Find Out

Find out the names of famous women of India who is a

- | | | | |
|------------------|-------|---------------------|-------|
| 1. shooter | _____ | 4. mountaineer | _____ |
| 2. hockey player | _____ | 5. badminton player | _____ |
| 3. cricketer | _____ | 6. weight-lifter | _____ |

Fun to Learn

Take a cardboard and white sheet. Paste the white sheet on the cardboard and draw a ludo on it. Purchase dice and tokens from market and play ludo with your friends.

Life Pillars

Games and sports make us healthy and strong. We feel refreshed after playing games. Make it your habit to play outdoor games daily. Be careful while playing that you must play in the playground not on busy or crowded roads.

Do to Learn More

Do you know how to play *kho-kho*. Learn it from your teacher and find out its rules.

5

Childhood Games

Curricular Goals

- Goli
- Stapu
- Gulli-danda
- lattoo
- kite-flying



In the ancient time, children played different types of games. These were very different and unique. Some of them are mentioned below.

Goli

Nikita's grandfather called some boys of the village and taught them the rules to play *Goli*. It is a game which is played with marbles.

Grandpa asked a boy to make a small hole in the ground. He then asked each player to throw his marbles towards the hole. The player who had more number of marbles in the hole or closer to the hole, was the first to flick his other marbles towards the hole. The player to put all his marbles in the hole was declared the **winner**.



Check Your Knowledge

Which games were played when Mishti's grandfather was a child?

Need to Know

The first recorded references to hopscotch dates back to the late 17th century, usually under the name 'scotch-hop.'

Stapu

Stapu or hopscotch was another game played when Mishti's grandfather was a child. In this game, a big rectangle was drawn on the ground and divided into compartments. Some compartments were divided into two by drawing vertical lines. Every player had to hop on one leg over each compartment. If the player's foot touched the lines, he/she would be out of the game.

Teacher's Tips

Tell the children about the games which were played in the ancient time.



Gulli Danda

It was played with a long stick, called the *danda* and a short stick with tapering ends called the *gulli*. One player hit the tapering end of the *gulli* with his *danda* and strike the *gulli* while it was in air and hit it as far as possible. The score was measured by the distance from the place where the *gulli* was hit and the place where it landed.



Activity Time

Ask your parents which games did they play in their childhood and mention them in your notebook. Also write how many players were needed for every game.

Lattoo

It was played by a wooden top which had a pin sticking out at the bottom. The player wrapped a string around the lower part of the *lattoo* and expertly released it on the ground where it spun round and round.



Kite-flying

It was also a favourite pastime of everyone. People flew colourful kites with the help of yarn which was wrapped around spools. This game was more fun on a breezy day.



Values

We should know about all the rules of the games which we play. Rules make the games much more interesting.

Word Power

- marble** : a small ball of glass that is used in various games
- compartment** : a partitioned section
- flick** : to make something move quickly and suddenly

Summary

- In ancient time children played different games.
- The ancient games were very interesting.
- People played games like *Goli*, *Gulli-danda*, hopscotch, etc.



Practice Time

A. Fill in the blanks.

1. Goli was played with _____.
2. _____ was played by a wooden top which had a pin sticking out at the bottom.
3. The player had to hop on one leg in the game of _____.
4. The game played with a long stick and a short stick is called the _____.
5. _____ becomes much more interesting on a breezy day.

B. Write the following.

1. A game you play at school
2. Your favourite game

3. The name of the person you like to play with
4. Your favourite player
5. A game that you have learnt from your parents

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

1. *Gulli danda* is played with a bat and a ball.
2. *Goli* is played with marbles.
3. Your grandparents did not play any game in their childhood.
4. Hopscotch is also called kite-flying.
5. Playing games is harmful.

D. Answer the following questions.

1. Which game did Mishti's grandfather tell her about?
2. How is hopstoch played?
3. What equipment are used in the game of *gulli-danda*?
4. How is a *lattoo* spun?
5. What is a spool? In which game a spool wrapped with yarn used?

Brainstorm

Find out what the games discussed in the lesson are called in different parts of India.

Find Out

Surf the Internet and find out the names of the games which the people in very ancient time played.

Fun to Learn

Try to make up a new game. It can be an indoor game based on a board or cards. Or, it can be a game played outdoors. Write down the rules and get your family to play it. Did it work? Was it fun?

Life Pillars

Life without games is really bored. We should pass a certain time in playing games every day to entertain us.

Do to Learn More

Have you learnt any game from your grandparents or parents? If yes, what is the game called? How is it played?

6

Beaks and Claws of Birds

Curricular Goals

- Beaks
- Feet and Claws










Beaks

Birds do not have teeth. They have beaks that help them to eat. The shape and size of a bird's beak depend on the type of food it eats. A bird also uses its beak to build a nest.

The table given below shows different types of beaks and their uses.

Need to Know

A toucan's beak is very long with air holes.

Beak	Shape	Type and Use	Birds
Hooked		It is strong, sharp and hooked beak. It is used to bite and tear the prey into small pieces.	eagles, owls, hawks, vultures
Spear-shaped		It is long, sharp and pointed beak which helps to spear fish.	herons, kingfishers
Strainer		It is strong and flat beak with strainers all along the edges which allows water and mud to go out through it.	ducks, swans
Chisel shaped		It is long and slender beak tapering at the tip which helps to make holes and catch insects in the tree trunks.	woodpeckers
Tweezer shaped		It is long and thin beak that helps to pull out insects from holes in the ground.	hoopoes, warblers
Cracker		It is short, thick and conical beak which helps to break and crush seeds.	sparrows, peacocks
Probe		It is a long and slender straw like beak that helps to suck nectar from flowers.	hummingbirds

Need to Know

Birds use their beaks to smoothen and clean their feathers by applying oil from their oil glands. This is called preening.

Teacher's Tips

Tell the students about different types of beaks and claws of birds and there uses.



Feet and Claws

Birds have claws on their feet. Different species of birds have different types of claws which help them to catch their food, perch on branches and to move around. The claws of birds are well adapted as per their environment and the food they eat. At times, they also use them for protection against their enemies.

In the table given below claws of different types of birds have been given.

Claw	Shape	Type and Use	Birds
Wading		The legs of such birds are long with toes which are spread out to help them to walk easily in shallow water. They also save them from sinking.	storks, cranes, herons
Grasping		These are large curved claws called talons. They are used to catch, kill and carry prey. Such birds have three toes in the front and one behind.	hawks, eagles, owls
Swimming		Such birds have webbed feet. They have three toes in the front and one small toe at the back. Feet work as oars while swimming.	ducks, swans
Scratching		Such types of claws are strong with three toes in the front and a short hind toe higher up the leg. With the help of these claws, birds can scratch the ground to find food.	hens, pheasants
Perching		Such claws have three toes in the front and one behind which curls around the branch to hold it firmly. With the help of such claws birds can sleep even when they are perching.	crows, robins, sparrows
Climbing		Such types of claws have two toes in the front and two behind. They enable birds to climb up, down and side ways on the trunks of the trees.	woodpeckers, parrots
Running		The birds who run very fast have two toes rather than four. Their legs are very strong.	ostriches

Values

You should not go very close to birds while watching them. As they have very sharp eyesight, they will notice you from a distance and will fly away as you near them.

Word Power

Beak : bill

Claw : a sharp, usually curved, nail on the foot of a bird

Talons : sharp and curved claws of eagle and hawk

Summary

- Different birds have different beaks and claws.
- Birds used their beaks for getting food, defence, gathering nest materials and also making nests.
- Every bird has two legs with claws attached to the feet.
- They type of the beaks and claws depend upon the environment and the type of food the birds eat.
- Birds use their claws to catch food, perch and move around.



Practice Time

A. Fill in the blanks.

1. _____ birds have webbed feet.
2. _____ birds can sleep even when sitting on a branch of a tree.
3. _____ birds have two toes rather than four.
4. Talons are found in _____ birds.
5. Eagles have _____ beaks.

B. Write the reasons for the following.

1. Ducks have webbed feet.
2. Woodpeckers have chisel-shaped beaks.
3. Eagles and vulture have talons.
4. Ostriches have long feet.

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

1. Eagles have three toes in the front and one behind.
2. All birds have four claws.
3. Sparrow has a small beak.
4. Claws help birds to sleep.
5. Herons have chisel-shaped beaks.

D. Answer the following questions.

1. What is the use of beaks for a bird?
2. What are the uses of claws?
3. Why do some birds have talons?
4. Name the birds which have very sharp beaks?
5. What is the difference between the beaks of vulture and sparrow?

Brainstorm

Some people hunt birds for their pleasure and enjoyment. Is it right to hunt birds for pleasure? Discuss with your friends.

Find Out

Find out the names of some flesh-eating birds found in India?

Fun to Learn

Write two examples of each.

1. Perching birds _____
2. Grasping birds _____
3. Scratching birds _____
4. Swimming birds _____

Life Pillars

Birds are our feathered friends. It's nice watching them. They are very colourful and attractive. We should not harm them in any way. In summer season, we should put grains and water for them on our roofs.

Do to Learn More

Both the duck and crane live in water. But they have different kinds of feet. Find out the reason?

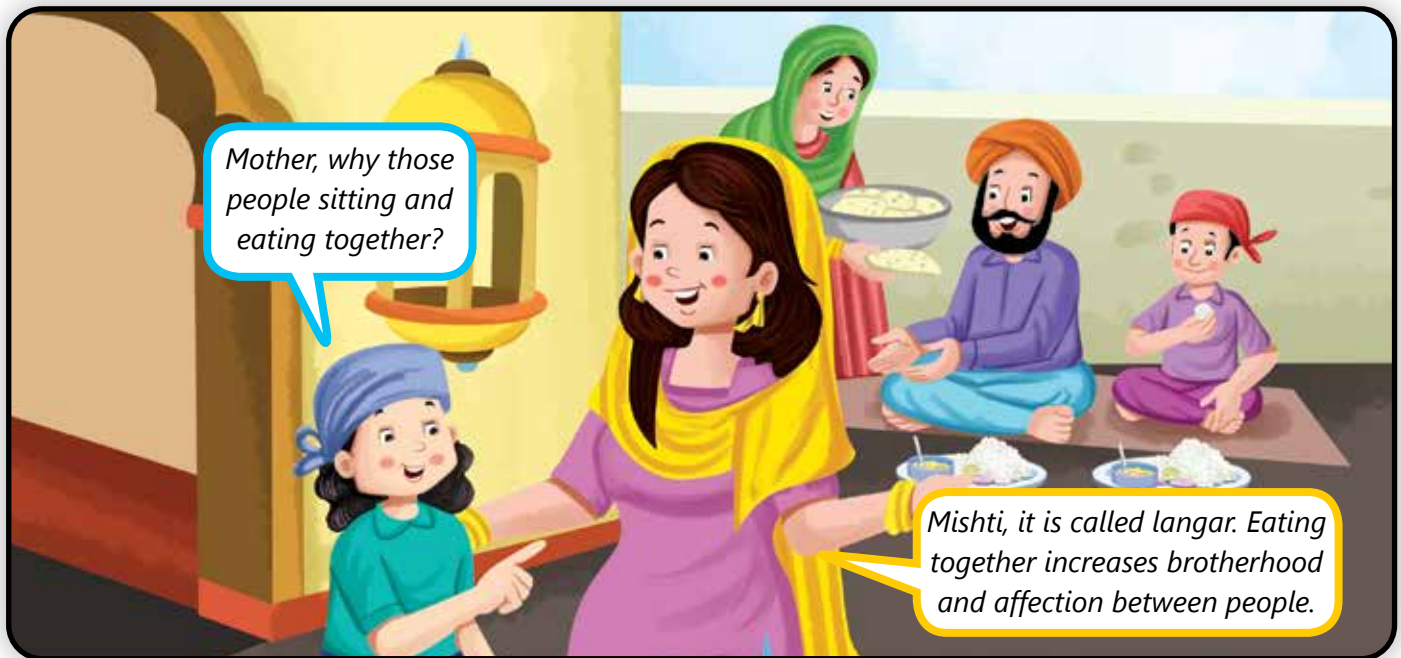


Eating Together



Curricular Goals

- Community Eating
- Community Meals
- Food, Region and Occasions



Community Eating

On several occasions, a large number of people eat together. It is called **community eating**. *Langar* is a good example of community eating.

Can you tell the names of some other occasions on which you have seen a large number of people eating together?

Festivals, birthday parties and weddings are such occasions on which people eat together. Most of the people who take part in community eating are known to each other.

They are served food in an open ground, community centre or banquet hall. Food for a community is prepared in a large quantity in big utensils.

Community Meals

Besides on social occasions, there are many other occasions when people eat together. They are called **community meals**. Community meals are not organized by an individual. They are organized by the organizations that manage the place where meals are served.

Temples and Gurudwaras

Bhandara is organized in temples while *langar* is organized in *gurudwaras*. In these community meals people of all religions and faith sit together on the floor and eat. Volunteers cook and serve the food on *pattals*.



Hostels

In hostels also students eat together in a common dining hall. They are served food at fixed time.



Mess

Soldiers and their families are served food in a mess. They also celebrate functions and festivals in a mess.

Pantry Cars

There are some trains in which the employees serve food to the passengers on their seats.

Midday Meals in Schools

The government of India has started midday meal scheme for the students of government schools. The children are given lunch free of cost. This is called **midday meal**. There are several benefits of midday meal.

- Children of different communities sit and eat together. It strengthens the bond of brotherhood.
- They learn the quality of behaving everyone equally and sharing things with others.



- Children gets healthy food.
- Because of midday meal, a large number of children come to school to study.

Food, Region and Occasions

There are cooked and served different types of food on different occasions. Region and locality also affect the type of food. People living in different areas of world eat different types of food.

- In north India, people prepare a special dish called *Gujiya* on the festival of Holi.
- On Eid people prepare a special dish called *Sewain*.
- People in Kerala prepare *payasam*, *olan*, and *avial* on the occasion of Onam.
- People in Tamil Nadu and Andhra Pradesh prepare sweet rice cooked in milk.
- In Maharashtra and other parts of India sweets of *til* are made on Makar Sankranti.
- On Gudi Padwa a paste of neem leaves mixed with jaggery and other things are prepared.
- On the occasion of Christmas special cakes with fresh fruit and dry fruit are prepared.



Values

Ours is a large country consisting of different communities all living together in harmony and celebrating festivals together. We should respect all communities.

Word Power

- langar** : a community meal organized in gurudwaras
- banquet hall** : a large building or room used for feasts
- bhandara** : a community meal organized in temples
- midday meal** : meal given to children in government schools in lunch

Summary

- Community eating is the one in which a large number of people eat together sitting at one place.
- Community eatings are generally held at *gurdwaras*, boarding schools, mess and many other places.
- In most government schools in India, midday meals are provided to children.
- People living in different regions of the country eat different kinds of food on special occasions.



Practice Time

A. Fill in the blanks.

1. We can see community eating being organized in _____ and _____.
2. On _____ people prepare a special dish called *gujiya*.
3. _____ is a special dish prepared on Eid.
4. In a _____, children eat together in a common dining hall.
5. In some _____, food is served to passengers from the pantry car.

B. Match the following.

- | | |
|-------------------------|---------------------|
| 1. <i>Gujiya</i> | (a) Onam |
| 2. <i>Sewain</i> | (b) Holi |
| 3. <i>Olan</i> | (c) Makar Sankranti |
| 4. Sweets of <i>til</i> | (d) Christmas |
| 5. Cake | (e) Eid |

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

1. *Bhandara* is served in a temple.
2. *Langar* an individual meal.
3. People in different regions of the country eat different kinds of food.
4. Sweets of *til* are made on Holi.
5. *Gujiya* is prepared on Eid.

D. Answer the following questions.

1. What do you mean by community eating?
2. What are the benefits of community eating?
3. Why is midday meal offered in government schools?
4. Define community meal.
5. What are the different foods prepared on different festivals in different regions of the country?

Brainstorm

Why do you think community eating is good?

Find Out

Visit a temple where a *bhandara* is being held. Find out the persons who are organizing the *bhandara*. Also find out the reason why they are organizing the *bhandara*.

Fun to Learn

Visit a mess with your parents and find out how food is prepared there and who serves it. Find out the menu of the mess for one week.

Life Pillars

Community eating develops the feeling of love, equality and brotherhood. Hence, we should participate them whenever possible.

Do to Learn More

Ask your classmates from which area of the country they belong to, which festivals they mainly celebrate and what are the special dishes prepared on these festivals.

8

World of Plants

Curricular Goals

- Parts of a Plant
- Types of Plants
- Roots
- Uses of Flowers
- Uses of Roots
- People Living in Forests
- Flowers



We can see a variety of plants all around us—in our neighbourhood in places such as gardens, parks and by the roadside.

We grow plants for a variety of purposes like for getting useful products, for giving shade and to keep air fresh and cool and the environment clean. Trees along the roadside and park are grown for shade purposes. They do not belong to any particular person. They are public properties. Plants grown alongside the roads and park are looked after by the Municipal Committee or Municipal Corporation. They plant saplings and protect them by covering with metal cages and tree guards. They water them regularly so that they can grow properly. The plants and trees that grow in forests are taken care of by the forest department.

You will have noticed numbers written on the trees growing along some roads and highways. Cutting them down is banned.

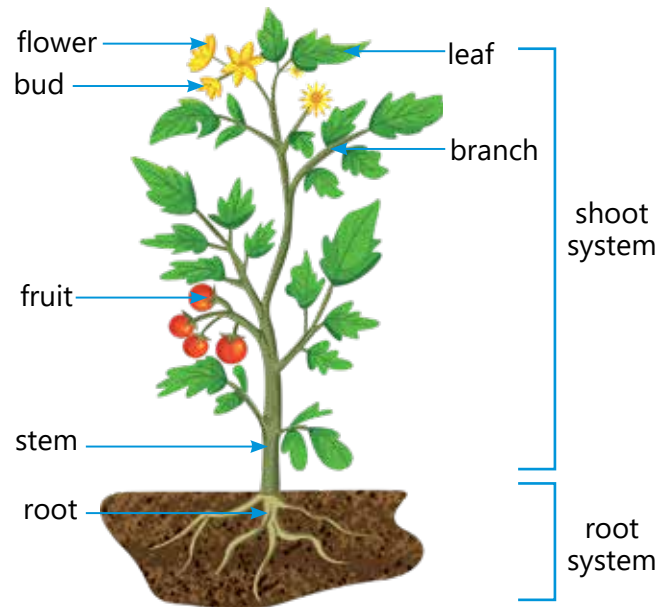
Check Your Knowledge

1. Write the names of four trees which you have seen in the park of your neighbourhood.

2. Who takes care of the plants in the park?

Parts of a Plant

All plants have two main parts—the **shoot system** and the **root system**. The shoot system grows above ground. It includes the stem, leaves, branches, fruit and flowers. The root system grows below the soil.



Roots

The root system is very important part of a plant. Roots fix the plant to the soil. There are two types of roots.

Tap Roots

These are the roots which have one main root with many small roots coming out from the main root. Plants such as **carrot**, **radish** and **mango** tree have tap roots.



Fibrous Roots

These are the roots that grow from the base of the stem of the plant. They are numerous roots which are roughly of the same size. They are found in **grasses**.



Teacher's Tips

Tell the students about different types of plants and their parts. Also tell them the functions of different parts.



Check Your Knowledge

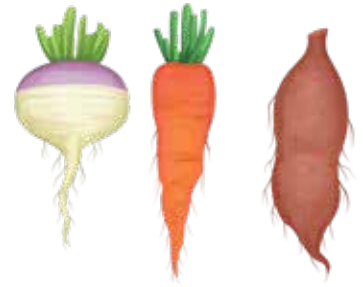
Write three examples of plants which have

1. Tap roots : _____

2. Fibrous roots : _____

Uses of Roots

- Roots are very useful for plants. With the help of roots, plants remain fixed to the ground. They protect the plant from getting uprooted due to strong winds. They also help hold the soil together.
- Roots also absorb water and minerals from the soil. Plants use water and minerals during the process of photosynthesis. Some roots such as carrot and radish store food in them. Such roots are called **storage roots**.
- During the famine when there is shortage of food, people eat roots like yam, tapioca and sweet potato. That's why they are also called **famine food**. Trees like banyan trees have roots that grow above the ground. They come out from the branches of the tree. They are called **aerial roots**. They fix on the ground and provide support to the heavy branches of the tree.



Pause to Do

Write the names of four plants which have storage roots.



Flowers

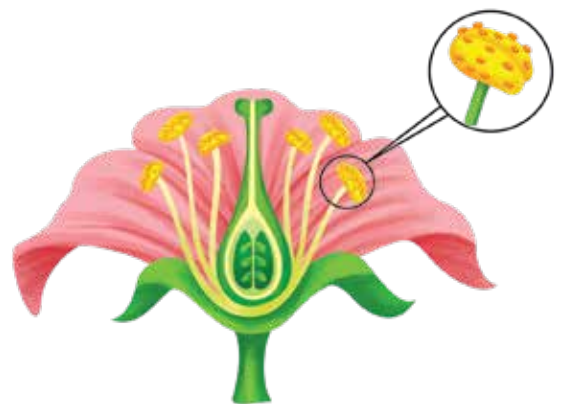
Flowers are very attractive parts of a plant. They are found in different sizes, shapes and colours. You can see them growing singly or in a bunch.

The coloured part of the plant is called **petals**. At the bottom of flower there are small green parts. They are **sepals**.

First the plant bear a **bud**. After some time the bud blooms into a flower. The petals are closely packed together in a bud. Sepals keep them covered. As the bud grows in size, the petals open to become a flower. A flower is the reproductive part of the plant. It develops into fruit that contains seeds. New plants grow from these seeds.

Need to Know

Some plants grow in marshlands. Such plants are called mangroves. They have breathing roots as they grow above the soil to take in air required by the plant.



Activity Time

There are some plants which do not bear flowers. Find out the names of such plants and collect their pictures. Paste the collected pictures in your notebook.

Types of Plants

Different plants bear flowers in different seasons. Based upon when their flowers bloom, plants may be called **annuals**, **biennials** or **perennials**.

Annuals

These are the plants which live for only one season. They bear flowers once in a season. Sunflower and marigold are the examples of annuals.



Biennials

These are the plants that live for two years or seasons. They only produce flowers and seeds in the second year and then die. Forget-me-not and canterbury bells are the examples of biennials.



Perennials

These are the plants which live for more than two years and bear flowers every year. Chrysanthemums, daisies and peony bushes are the examples of perennials.

Uses of Flowers

- Flowers such as cauliflower and broccoli are eaten as food.
- They are used for decoration purposes in parties and homes.
- They are used for making garlands.
- Perfumes and oils are made from the petals of flowers such as rose and jasmine.



- Honeybees suck the nectar of flowers to make honey.
- Flowers are also used for worshipping and are offered in temples.
- Rose flowers are used to make **gulkand**.



Florist

The person who sells various types of flowers is called the florist. A florist is expert in arranging flowers. The Japanese art of arranging flowers is called **kebana**.



People Living in Forests

In the early time, men lived in forests. He did not know how to grow crops. Hence, he got food by hunting animals or by gathering wild fruit. In the modern times as well there are many people who live in forests. They are called *adivasis* or tribals.

The tribals get their food from forests. Among the trees they get use, *mahua* is a very important. They use its flowers and leaves for different purposes.

It is very unfortunate that nowadays forests are being cut down to avail land for construction and agriculture purposes. It is causing adverse effects on tribals. They are being left devoid of shelter and food.



Values

Flowers symbolize health, love and friendship. They can be used to express feelings. They are offered to gods and goddesses.

Word Power

- marshland** : low-lying wet land with grassy vegetation
- sepals** : the green parts at the bottom of flower which protects the petals
- petals** : the colour part of the flower
- bud** : the initial stage of flower

Summary

- We see different types of plants all around us.
- A plant has two parts -the root system and the shoot system.
- There are two types of roots - tap roots and fibrous roots.
- Roots keep the plant fixed in the soil.
- Flowers are the most beautiful part of a plant.
- Based upon the flowering season, plants can be annuals, biennials or perennials.
- Flowers are very useful for us.
- People living in forests are called tribals.



Practice Time

A. Fill in the blanks.

1. The part of the plant that grows above the ground is called the _____ system.
2. The part of the plant that grows below the ground is called the _____ system.
3. A plant that has tap roots is _____.
4. _____ is a storage root.
5. _____ are plants that live for more than two years.

B. Write the following.

1. A flower which is used to make perfume _____.
2. A flower that you eat _____.
3. A root eaten as famine food _____.
4. An important tree for tribals _____.

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

1. The banyan tree has aerial roots.
2. The plants growing in marshlands have breathing roots.
3. Biennials live for many years.
4. Flowers are the reproductive parts of plants.
5. Broccoli is a root that is eaten by human beings.

D. Answer the following questions.

1. What is the root system?
2. What do you mean by shoot system?
3. Who are tribals? What do they eat?
4. What are the uses of flowers?
5. What do you mean by a florist?

Brainstorm

In villages, some people chew neem branches to clean their teeth. What are its benefits?

Find Out

What do plants need to grow? Also find out whether a plant can survive without one or more things of them.

Fun to Learn

Collect leaves of some plants and press them between the pages of your old notebook. When they are dried paste them in your EVS notebook and write their names below them.

Life Pillars

Plants and trees are very important and useful for us in many ways. We should not harm them. As they keep the environment clean and fresh, we should plant as much trees as we can. We should also take care of them till they have grown fully.

Do to Learn More

Visit a gardener with your parents and find out how he takes care of plants. Also ask him how to keep plants in good and well-flourished condition.



How Food Reaches Us

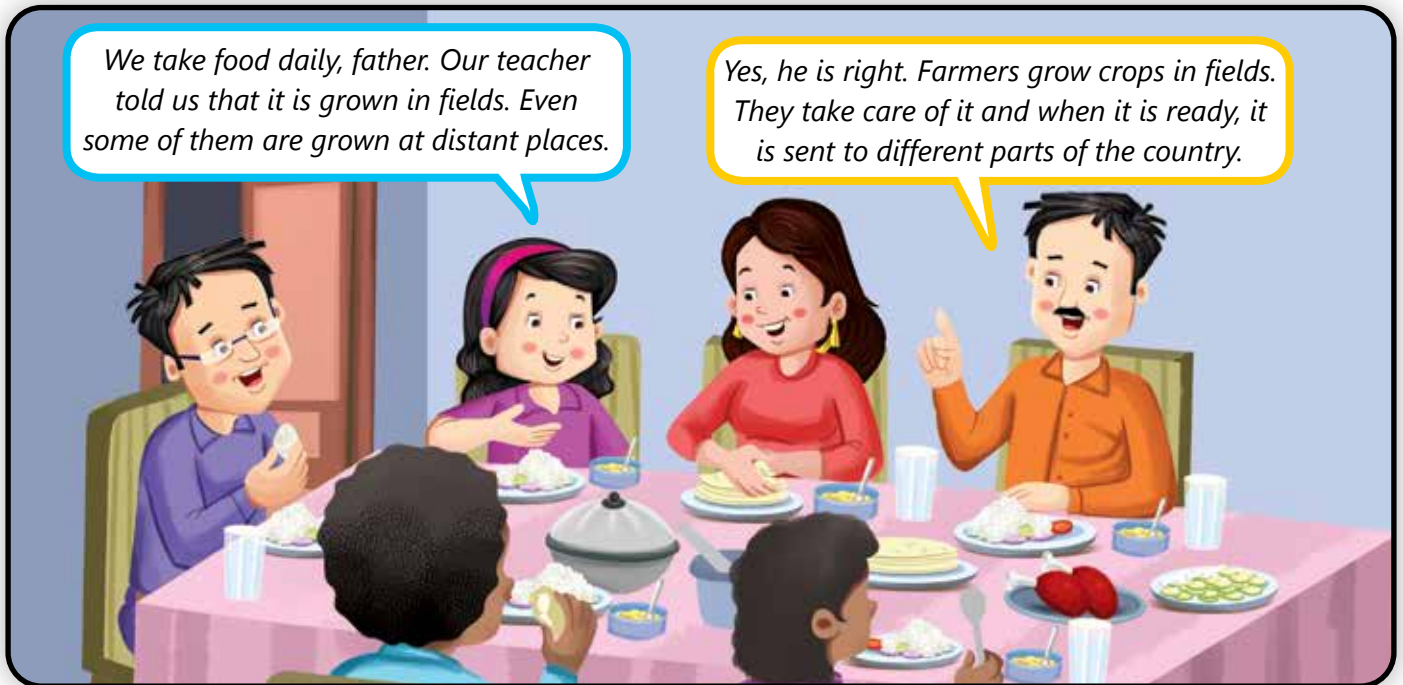


Curricular Goals

- Growing Crops in Fields or Farms
- Different Kinds of Food Obtained from Plants

We take food daily, father. Our teacher told us that it is grown in fields. Even some of them are grown at distant places.

Yes, he is right. Farmers grow crops in fields. They take care of it and when it is ready, it is sent to different parts of the country.



Growing Crops in Fields or Farms

Food covers a long journey before it reaches our table. First of all a farmer grows vegetables, fruits, pulses, oilseeds, cereals and many other things in his/her field.

Ploughing Field and Sowing Seeds

For ploughing the field, a farmer uses a tractor or bulls. Ploughing makes the soil soft. After it, he adds fertilizer or manure to the soil. It makes the soil rich in nutrients. **Manure** is made from animal and plant wastes. **Fertilizers** are prepared using chemicals.

Need to Know

When we grow plants of a type on a large field, it is called a crop.



Next he selects good quality seeds as per the growing season and sows them in the soil. He takes care of the field and water them on regular basis. In due course, the seeds grow into saplings and then into fully grown plants or crop. He makes the use of different **pesticides** and **insecticides** to protect his crop from rats, birds and insects like locusts.

Harvesting and Packaging

Different crops are ripe after a certain period. When they are ripe, they are harvested. Farmers use gunny bags to pack grains such as cereals and pulses.



Fruits and vegetables get rotten easily. They are packed in cardboard or wood boxes.

Food From Farm to Mandi

After getting packed, the food is sent to the wholesale market which is called *mandi* for selling. Different means of transport such as carts, trucks, tractors or trains are used to carry food items from farms to the *mandis*.



There are grain merchants and fruit and vegetable sellers from towns or cities who come to the *mandi* and buy the products in large quantities. From *mandi* they carry them to their localities to sell them in retail. People buy these food items from the local markets.

Different Kinds of Food Obtained From Plants

Cereals

Cereals are the seeds of plants. They are also called grains. Maize, millet, oat, rice and wheat are the examples of cereals. Rice and wheat are the **staple diet** of most people in the world. It is eaten in a variety of forms. For example, some people use oat flour to make chapattis while some others take oat flakes in



breakfast. Wheat flour is also used to make various food items like bread, chapatti, biscuit, pancakes, etc. Some people take oats and cornflakes in breakfast.

Pulses

Urad, rajma, moong and *chana* are the examples of pulses. They are dried seeds of certain plants. They are rich in protein and help our body to grow.

Fruit and Vegetables

We should take plenty of fruit and vegetables daily. They are full of vitamins, minerals and other nutrients. There are a variety of fruits like apple, pear, guava, grapes and papaya. Our country is the largest producer of mango, banana and chikoo. Potato, cauliflower, cabbage, tomato and onion are the examples of vegetables.

Nuts

We get nuts such as groundnut, cashew nut, almond and walnut from plants. They are rich in proteins, fats and minerals.

Oilseeds

We get oil from oilseeds. It is the most important ingredient of cooking. Seeds of some plants are crushed to get oil. Groundnut, mustard, sunflower, soyabean, coconut and rice bran are some frequently used oil.

Spices

Spices are obtained from the flowers, fruits, bark, seeds and roots of some plants. They are used to add flavour and taste to the food. Indian spices are popular all over the world.



Values

People like farmers, gardeners and transport workers work very hard to avail food for us. We should be grateful to them.

Word Power

- Farm** : a field where farmers grow crops
Harvest : to gather crop
Oilseeds : seeds of plants used to make oil
Locust : a type of insect which destroy crops
Staple diet : the food or foods that anyone eats most often

Summary

- The food reaches our table after a long journey.
- Farmers grow crops on their fields.
- They plough the field and mix manure or fertilizer to make soil rich in nutrients.
- After sowing the seeds, the farmer takes care of the crops.
- They harvest the crop once it is ripe.
- The harvested crops are transported to the *mandi*.
- Retailers purchase them from there and we purchase them from the retailers. In this way, they reach our homes.
- Fruits, vegetables, cereals, pulses, spices, oil, nuts and many other foods are obtained from plants.



Practice Time

A. Fill in the blanks.

1. Food reaches our _____ after covering a long journey.
2. The _____ ploughs his field and then sow seeds.
3. Manure or _____ is added to the soil to make it rich in nutrients.
4. _____ are obtained from the flowers, leaves, bark or roots of some plants.
5. Nuts are dried _____ of some plants.

B. Write one word for the following.

1. The process of making the soil of field soft _____

2. This is used to pack grains _____
3. A wholesale market _____
4. It is mixed with soil to make it fertile _____
5. It is extracted from seeds _____

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

1. Sowing the seeds make the soil soft.
2. Fertilizers are made using chemicals.
3. Insecticides are used to keep human beings away from the crops.
4. Grains are packed in cardboard or wood boxes.
5. Fruits and vegetable do not spoil quickly.

D. Answer the following questions.

1. Why does a farmer plough the field?
2. What are the two methods of ploughing the fields?
3. Which foodstuffs rot earlier?
4. What is the use of pesticides and insecticides?
5. What are the benefits of eating pulses?

Life Pillars

Food is precious for us all. There are people across the globe who do not get sufficient food to eat. Even more, there are people who pick foodstuffs from garbage to satisfy their hunger. Hence, we should not waste any food. We should give extra food to the needy people.

Do to Learn More

Write the names of spices used at your home. What are they called in your mother tongue?

Name of the spice	Name in your mother tongue
1. Black pepper	_____
2. Coriander	_____
3. Cardamom	_____
4. Cumin seeds	_____
5. Red chilies	_____



Teeth and Tongue



Curricular Goals

- Teeth
- Parts of a Tooth
- Kinds of Teeth
- Tongue
- How to Take Care of The Tongue
- Teeth of Animals



Our mouth has teeth and tongue. They help us to bite and taste the food that we eat. Our teeth help us chew our food properly so that it can be digested easily. Our teeth also give shape to our face and with their help we can speak clearly. Our tongue helps us to speak, taste and move food in the mouth.

Teeth

During our lifetime we have two sets of teeth. The first set of teeth is called **milk teeth**. Milk teeth appear in a baby's mouth when it is a few months old.

There are 20 milk teeth in all. When the child is about 6 years old, the milk teeth begin to fall off. New teeth start appearing in their place. These are called **permanent teeth**. In an adult there are 32 permanent teeth.

By the age of 12 years, the milk teeth are replaced by a set of 28 permanent teeth. Four more teeth called the **wisdom teeth** grow between the age 12 and 21.



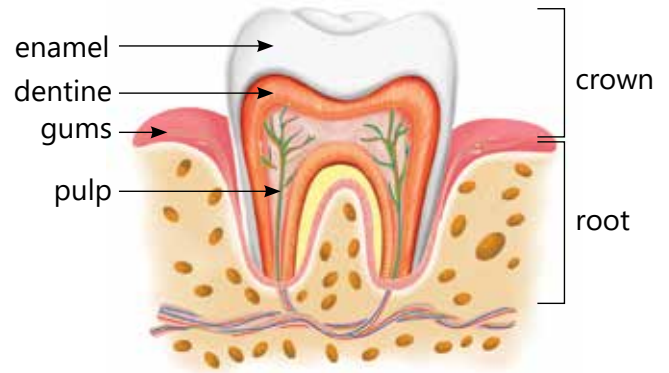
milk teeth

permanent teeth

Parts of a Tooth

A tooth has two parts—**crown** and **root**.

- The visible part of a tooth is called the **crown**.
- The part of a tooth inside the gums is called the **root**.
- The soft, pink and fleshy part surrounding the teeth are the **gums**.
- The hard substance covering the crown is called the **Enamel**.
- Dentine supports the enamel.
- The soft substance which fills the empty space within the tooth is called the **pulp**.

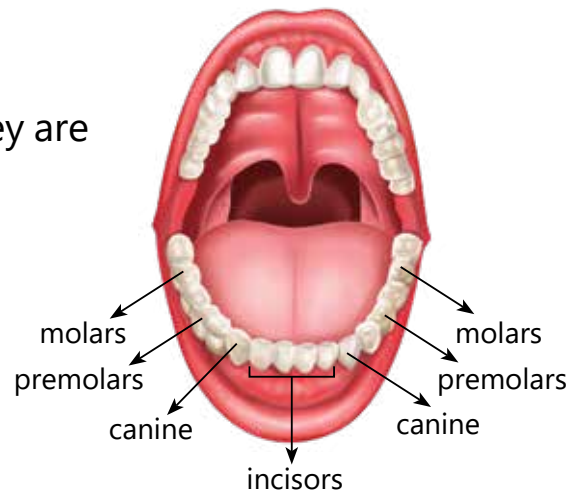


Kinds of Teeth

We have different types of teeth in our mouth. They are of different shapes and sizes.

Need to Know

The crown of our teeth has an enamel coating which is the toughest and the hardest part of our body, even tougher than the bones.



Biting Teeth

We have four biting teeth called **incisors**. They are the front teeth in each jaw. There are eight incisors in our mouth. They have a sharp, straight and cutting edge.



canine

Tearing Teeth

Tearing teeth are also called **canines**. They are the two pointed teeth one on each side of the incisors. Thus, we have four canines. They are used to tear flesh.



incisor

Grinding Teeth

Grinding teeth are also called **premolars**. They are the four flat teeth, two on each side of the canines. They help to grind and mash the food. We have eight premolars in our mouth.



premolars

Chewing Teeth

Chewing teeth are also called the **molars**. We have six molars in each jaw, three on each side of the premolars which are broad teeth with points and grooves. We chew food with their help. We have twelve molars in our jaw.



How to Take Care of Teeth

When we eat something and do not rinse our mouth properly, food particles remain stuck to the teeth. Bacteria grow on these food particles leading to tooth decay. This also damages the pulp which has nerves. These nerves send signals to the brain and we feel pain.

It is very important to take care of our teeth to keep them healthy. We should follow the given points.

- We should brush our teeth properly and regularly. Move the toothbrush in small, round movements to clean the teeth from outside. Again move the toothbrush up and down so that all the food particles get removed from the gaps between the teeth. Don't brush your teeth backwards and forwards. This can harm the gums. Move the brush very gently.
- Always rinse your mouth with water after you eat something.
- Never use a toothbrush with hard bristles.
- Use a dental floss to remove the food particles stuck between your teeth where the toothbrush cannot reach.
- Brush your teeth twice a day—in the morning and before you go to bed.
- Eat foods like carrot, radish and cabbage. They provide a good exercise to our teeth and gums.
- Avoid eating too much sweets and chocolates. Bacteria grow on them easily. They secrete a type of acid that makes a hole in your tooth called cavity.
- Regularly visit your dentist.
- Massage your gums with your finger gently. Gums are important as they support the teeth.



Tongue

Our tongue helps us to taste food that we eat. There are many taste buds on our tongue that give different tastes. Each taste bud is connected to the brain with nerves. The impulses from the tongue reach the brain within seconds. Our brain then tells us the taste and decides whether we like it or not. We can immediately tell if the food is sweet, sour, bitter or salty.



Taste zones on the tongue

Different portions of the tongue are sensitive to different tastes. The taste buds at the tip of the tongue tell us the sweet taste of food. The part little behind the tip of the tongue identifies salty taste. Taste buds for bitter taste are at the back of the tongue. The buds on the sides of the tongue help us to identify sour taste.

Our tongue helps us to speak. Try to hold your tongue and speak. You find it very difficult to speak. Stand in front of a mirror and speak. You see your tongue roll when you speak. This rolling action on the tongue helps you to pronounce the words correctly.

How to Take Care of the Tongue

Our tongue is one of our sense organs. It helps us to identify different tastes. It is very essential to take proper care of our tongue.

When we eat something and do not rinse our mouth properly, our tongue gets covered with bacteria that grow in the mouth. We should clean the tongue gently with a tongue cleaner once we have brushed our teeth. An unclean tongue causes bad breath. Eating too much spicy food or drinking very hot liquids may cause blisters on our tongue. So, we should avoid these things.

Teeth of Animals

Like us many animals too have teeth. Their teeth are well-suited to the type of food they eat.

The animals that eat plants are called herbivores. Their teeth are strong, flat and sharp incisors for biting and cutting the plants. They have well developed molars so that they can chew and mash the food. They do not have canines and hence they have a gap between their front and back teeth.



The animals which eat flesh of other animals are called the carnivores. Such animals have very well-developed canines so that they can tear flesh. Their grinding teeth are very strong to chew the flesh.



Animals like rabbits and squirrels have a pair of very sharp front teeth that help them to gnaw. They are called **gnawing animals** or **rodents**.



The incisors of rodents are continuously growing throughout their lives. As they gnaw their food, they do not grow too long.

Reptiles and fish use their teeth to catch their prey. They replace their teeth continuously. Their all teeth are nearly the same size.



Values

It is important to take care of your permanent teeth as they will not be replaced by another set of teeth. So, brush your teeth twice a day.

Word Power

- Milk teeth** : the first set of teeth
Permanent teeth : the teeth that grow after the falling of milk teeth
Wisdom teeth : four molar teeth that grow between the age of 12 and 21
Enamel : hard white substance covering the crown of a tooth
Gnaw : bite or chew on with the teeth

Summary

- We have teeth and tongue in our mouth.
- We chew our food with the help of our teeth. They also help us to speak clearly.
- Milk teeth are the first set of teeth that grow in our mouth, which later fall out and replaced by a set of 32 permanent teeth.
- The permanent set of teeth consists of incisors, canines, premolars and molars.
- Our tongue helps us identify different tastes with the help of taste buds. It also helps in speaking.
- We should take proper care of our teeth and tongue.
- Animals have teeth suited to the kind of food they eat.



Practice Time

A. Fill in the blanks.

1. The first set of teeth is called the _____.
2. The outer cover of a tooth is called _____.
3. The _____ helps us to speak properly.
4. _____ makes the teeth strong and protects from cavities.
5. Flesh-eating animals have _____ teeth.

B. Give one word answer.

1. The number of milk teeth _____
2. Hardest substance in our body _____
3. The teeth which help to cut and tear food _____
4. Number of taste buds _____
5. Number of canines in humans _____

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

1. Reptiles and fish do not have teeth.
2. A dentist treats our teeth.
3. Canines are useless teeth. They have no function at all.
4. A rabbit is a gnawing animal.
5. An adult human being has 32 permanent teeth.

D. Answer the following questions.

1. What do you mean by milk teeth?
2. Why are rodents called gnawing animals?
3. What are the types of teeth?
4. How can we take care of our teeth?
5. How are cavities formed?

Building Blocks of Life

All our body parts are very important for us. Therefore, we should take care of all of them properly to stay fit and active.

Time to Learn More

Given below are the pictures of different types of teeth. Can you identify them and write their functions below them.











Houses Then and Now



Curricular Goals

- Houses
- Types of Houses
- Slums



Houses

We all need a house to live in. Our house protects us from heat, rain, storm, cold, wild animals and thieves. The houses which were built in ancient time were very much different from the modern houses. They were very simple and had a lot of green space in and around them. They usually had one or two storeys. Their roofs were very high. There was only one bathroom in every house which was shared by the entire family. For light during nights, oil lamps or lanterns were used in the houses. People cooked food on *chullahs* made of mud. Coal, wood or dried cow dung were used as fuel. All the family members lived together and shared each others' work.

Need to Know

In the early time, people used to live in caves and under trees.

Types of Houses

Ours is a vast country with different types of climate in different regions. The type of house built in a region depends on the climate of that region. People make them using the construction materials easily available in that region.

The houses in rural areas are different from the houses in urban areas.

Houses in Rural Areas

A large part of India's population lives in villages. The houses made in villages are mostly *kutchra* houses. They are made using the material like mud, straw and dried leaves. Their walls are made from bricks or mud and they have thatched roofs. The houses with thatched roofs are called **huts**. A hut is temporary house and it is not very strong. There is mostly one room in a hut. The walls of the huts are usually coated with mud and cow dung.



In present era, the lifestyle of village people has changed to a great extent. We can now see *pucca* houses in villages. They also use modern means of transport and communication. Now, we can see houses in villages similar to that in cities and towns.

Some rich village people build big and very strong houses. These are called **havelis**.

Houses in Urban Areas

In cities and towns houses are made of baked bricks, iron, cement, wood, concrete and asbestos. They are much stronger than the houses made in villages. They are called the *pucca* houses. A great variety of materials is used to make and furnish the houses in urban areas. The floors are made of materials like tiles and marbles, and walls are made of bricks plastered with a mixture of cement and sand.

There may be many rooms in urban houses like drawing room, dining room, kitchen, bathrooms and bedrooms.

Some big houses may have even garage, servant quarters and store.



Need to Know

Kamala Nehru Park in Mumbai has a house built in the shape of a shoe. It is called a shoe-house.

As the population of the country is growing day by day, the space for living is decreasing. To come over this problem, many multistorey buildings are being built in cities and towns. Every building has many houses which are called **flats** or **apartments**.

We can also see bungalows in urban areas. They are big houses with gardens and lawns.



Activity Time

Given below are the different types of houses. Identify and name them.



Check Your Knowledge

1. What material has been used to make your house?

2. What material is used to make a hut?

Need to Know

Burj Khalifa in Dubai is the tallest building in the world.

Slums

A slum is a densely populated urban area marked by overcrowding, poverty and run down housing. A cluster of temporary or unfurnished houses are there in slums. They lack in even the basic facilities such as water and electricity.

In some urban areas, the government is providing low-cost houses for the slum dwellers.

Values

Some people who do not have their houses to live, take a house on rent. No one should rent his/her house without the police verification of the tenant.

Word Power

ancient : old

slum : a densely populated area of a city where living conditions are very bad

Summary

- People living in different regions of the country build different types of houses.
- We can see *kutcha* houses particularly in rural areas
- We can see *pucca* houses in urban areas.
- *Pucca* houses are stronger than the *kutcha* houses.
- Flats or apartments and bungalows are the examples of *pucca* houses.
- Slums are the the densely populated areas in cities with a cluster of unfurnished houses.



Practice Time

A. Fill in the blanks.

1. *Pucca* houses are made of bricks, _____ and cement.
2. In very big cities, people live in _____.
3. A slum is usually found in a _____.
4. A _____ is a *kutcha* house.
5. _____ are big houses with garden and lawn.

B. Give reasons for the following.

1. Why are different types of houses found in different parts of the country?
2. Why is a hut not a strong house?

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

1. *Kutcha* houses are found in villages.
2. A slum has all the facilities.
3. An apartment is a *kutcha* house.
4. We should keep our house clean and tidy.
5. We have no slums in our country.

D. Answer the following questions.

1. Who builds a *pucca* house?
2. What is a multi-storeyed building?
3. What is a stilt house?
4. What are slums?
5. What is the condition of slums in India?

Brainstorm

Why do people build stilt houses in the areas where it rains heavily?

Find Out

Why should the rooms of a house have big windows?

Fun to Learn

Collect pictures of different types of houses like a hut, igloo, tent, houseboat, stilt house and paste them on a chart paper. Write the name of the house and one speciality below them.

Life Pillars

You may have a big house or a small house. It may be *kutcha* or *pucca*. Whatever the type of the house you live in. It should be kept neat and clean.

Do to Learn More

Have you ever visit any slum area. Which types of houses did you see there?



Locating a Place



Curricular Goals

- Landmarks
- Directions
- Sketch
- Map



We can locate a place with the help of landmarks, sketches, maps, signs and symbols.

Landmarks

The reference points or places which help us to locate a place are called **landmarks**. Some places like cinema halls, schools, markets, temples and many others can be used as landmarks to locate a place.

Check Your Knowledge

Can you name some landmarks on the way from your school to your house?

Sketch

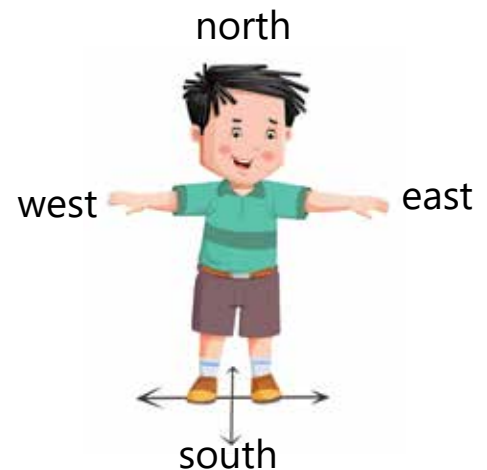
A rough drawing of a place is called the **sketch** of that place. A sketch is not an exact drawing of that place.

Need to Know

The first person who drew a map of the earth on a flat surface was Gerardus Mercator.

Directions

East, west, north, and south are the four main directions. When we stand facing the rising sun, east is in front of us. Behind us is the west. Our left hand points towards the north and the right hand points towards the south. We can also use compass to find directions. Compass is a device that consists of a magnetic needle which helps in locating direction by pointing towards the north.

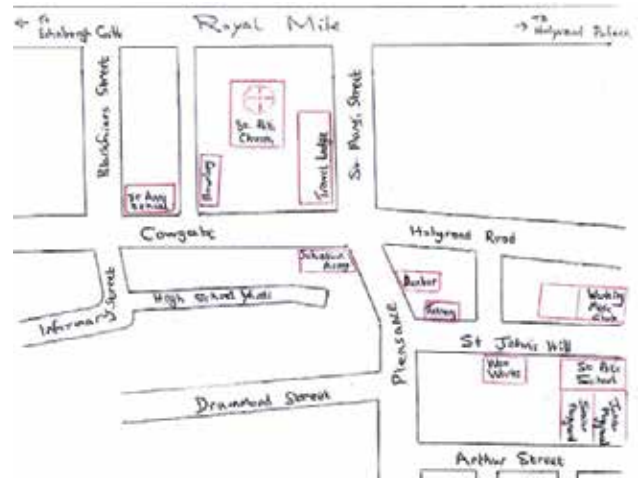


Map

A map shows the exact location of a place. It is a pictorial chart of a place drawn on a flat surface like paper. It shows directions in relation to the sun and contains signs, symbols and scales to locate places shown on it. A book of maps is called an **atlas**.

Types of Maps

There are three types of maps— political, physical and thematic. The map showing states or countries, their boundaries, capital cities as well as other important places is called a political map.



Teacher's Tips

Tell the students how to locate a place with the help of landmarks, sketch, maps etc. Also tell them about directions.



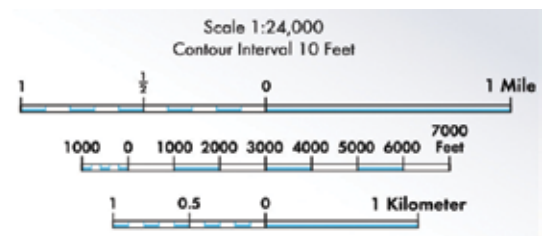
The map that shows different landforms and water bodies such as mountains, deserts and rivers is called a **physical map**. It is also called a relief map. The maps which give information about population, soil type, temperature, rainfall, etc. are called **thematic maps**.



Scale of a Map

As a map cannot show the actual area because of its smaller size, a scale is used to draw a map. The scale is the ratio between the distance on the ground and the distance on a map. It is given in a corner of the map. It is an important part of the language of a map as it relates the distance between places on a map to the actual distance between the places.

For example, If the distance between two places A and B is 500 kilometres on the ground and on the map, the distance between these two places is only 5 cm. That means 1 cm = 100 km. This is the scale of a map. A person who makes and study maps is called a **cartographer**.



Signs and Symbols






Important information such as rivers, roads, bridges, churches and temples is represented by different signs and symbols. Some important signs and symbols are given in the table below.

Activity Time

Take a political map of India and measure the distance between any two places with the help of a ruler. Then look at the scale of the map and find the actual distance between those two places.

Physical Features	Boundaries	Communications
River	International Boundary	National Highway with number
Canal	State/Province Boundary	State Highway/Major Road
Lake/Reservoir	District Boundary	Other Road
Marsh	Boundary in Dispute	Road with bridge
Glacier	Settlements	Road (under construction)
Peak (Height in metres)	Country Capital	Track/Footpath
Sea depth (in metres)	State Headquarters	Railway
Coral Reef	Union Territory Headquarters	Railway (under construction)
Desert	District Headquarters	Airport
Salt pan	Other Town	Seaport
Waterfall	Tourist place	

Different colours are also used in a map. They are used to represent different water bodies and landforms on the map.

-  Blue – rivers
-  Green – forests
-  Yellow – plains
-  Red – plateaus
-  Brown – mountains, hills and deserts

Values

Whenever you go to a new place, take a map of that place so that you can easily locate your destination.

Word Power

- landmark** : a reference point or place used to locate a place
- sketch** : a rough drawing of a place
- map** : a diagrammatic representation of a place usually on a flat surface
- landform** : a specific geographical feature such as mountain or plain

Summary

- We can locate a place with the help of landmarks, sketches, maps, signs and symbols.
- Reference points or places such as a temple or a market are called landmarks.
- A rough drawing of a place is called a sketch.
- The four main directions are east, west, north and south.
- A map represents the exact location of a place.
- A scale is an important part of a map.
- Signs and symbols are used to represent important information on maps.



Practice Time

A. Fill in the blanks.

1. A _____ represents the exact location of a place on a flat surface.
2. A book of maps is called an _____.
3. There are three types of maps– _____, _____ and _____.
4. A political map shows _____ or _____.
5. Landforms and water bodies are shown on a _____ map.

B. What do the following colours show in a map?

1. Blue _____
2. Yellow _____
3. Green _____
4. Brown _____
5. Red _____

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

1. A map is a rough drawing of a place.
2. Scale is very important for a map.
3. There is no need of signs and symbols in a map.
4. A book of maps is called an atlas.
5. There are five main directions.

D. Answer the following questions.

1. What do you mean by a sketch?
2. Why is scale important on a map?
3. What do you mean by a landmark?
4. Why are signs and symbols important?
5. What is the difference between physical and political maps?

Brainstorm

Why are maps of different places made? Discuss with your friend.

Find Out

Look at a physical map of your state and find out different signs and symbols used in it. Also find out the meaning of these signs and symbols.

Fun to Learn

Given below is an outline map of India. Show the following places in it.

1. Delhi
2. Mumbai
3. Kolkata
4. Chennai
5. Indian Ocean
6. Jaipur



Life Pillars

Some people, when go to a new place, don't know the exact location of a place and seek the help of passers-by to reach that place. If someone asks you the address of a place, always tell him/her right address if you know.

Do to Learn More

Given below are the pictures of some signs and symbols used on a map. What do they indicate? Write below them.





Curricular Goals

- Animals That Live in Groups
- Animal and Human Interaction
- Bees
- Arboreal Animals
- Behaviour of Animals
- Ears of Animals
- Shelters of Animals
- Aquatic Animals
- Animals Helping Each Other
- Body Coverings of Animals
- Terrestrial Animals
- Amphibians



We see different animals all around us. They are of different sizes and shapes and they like to live in different environment and to eat different kinds of food.

Animals That Live in Groups

Some animals like to stay alone while there are some animals which like to stay in groups. The animals which like to stay in group are called **social animals**. They live in groups to produce their young ones, to save themselves from enemies and adverse weather conditions like cold. Bees, ants, bears, fish, penguins, etc. are animals that live together in groups. Every member of the group has a specific task to do. Every group of animals has their own leader that takes important decisions. In a herd of elephants, the eldest female is the leader and other members of the group follow her.



Behaviour of Animals

Different types of animals exhibit different behaviour. Some animals are shy. They do not come near us and run away on seeing us such as cockroaches, squirrels and rats. When we touch a tortoise, it hides its head, legs and tail in its shell. Some animals such as dogs, cats, dolphins and horses are friendly to us.

Animals Helping Each Other

Like we help each other, animals also help each other in numerous ways. You would have seen birds such as egrets sit on cows and buffaloes and eat the insects on their bodies. Thus, they clean the body of the animals and in return gets food from them.

Animal and Human Interaction

Animals are very useful for human beings. They take care of them, feed them and provide them with shelter. Animals, in return, give human beings many useful things. We get milk from buffaloes, cows and goats. Ducks and hens give us eggs and meat. Camels and horses are used to pull carts. Oxen and bulls help in ploughing fields. Cats and dogs are kept as pets.



Teacher's Tips



Tell the students about different types of animals and their behaviour.

Ears of Animals

The shapes and sizes of ears in various animals vary from animal to animal. Elephants, rabbits, and foxes have long ears to help them hear the slightest of sound. Rats and hippopotamus have small ears. Polar bears have small nubs instead of ears which they can close while swimming. Birds have two holes, instead of ears, in their head that help them to hear. Snakes do not have ears at all. However, they can sense vibrations on the ground.



Body Coverings of Animals

Different types of animals have different body coverings. Deer and zebra have short hair on their body. Yak and polar bear have long, thick hair to keep themselves warm in the cold regions. Porcupines have spikes on their body that protect them from enemies. Snakes, crocodiles and lizards have scales on their body. Birds have feathers on their body.



Check Your Knowledge

1. Name two animals which live in groups.

2. Why do porcupines have spikes on their body?

Bees

Bees are very useful insects. They provide us honey. They also help in the **pollination** of plant. They sit on the flowers to suck their nectar which they use to make honey. When a bee sits on a flower, the pollen grains stick to its body. When the same bee sits on another flower, these pollen grains get brushed-off its body.

Need to Know

A bee produces a teaspoon of honey in her lifetime.

How Bees Make Honey

A bee has a tube-like tongue which it uses to suck nectar from a flower. When the stomach of the bee is full of nectar, it goes back to the hive and spits it out into the various compartments of the hive. When the compartments are full, the bees seal them with the **wax** produced by their body. In due course, the nectar is converted to honey.



Honey collectors collect the honey from the beehive. For this, they first burn wood or dried leaves below the beehive. Thus, the bees are driven out by the smoke and heat. The honey collectors remove the beehive and extract honey from it.

Shelters of Animals

Like us, animals also need shelter to live in to protect themselves from bad weather conditions and their enemies.

Different animals live in different natural surroundings. Based upon their surroundings animals can be classified as **terrestrial**, **arboreal**, **aquatic** and **amphibian**.

Terrestrial Animals

These are the animals that live on land. They live in different types of homes.

Bats, bears, lions and tigers live in rock **caves**.



Snakes live in natural **holes** in the ground. They can also live under logs or in abandoned anthills.

Animals such as deer, elephants and giraffes live in the open or **under trees**.



Arboreal Animals

These are the animals which live on trees. Monkeys and squirrels live on trees. Chimpanzees can live both on trees as well as on the ground. These animals pass most of their time on the trees but they can come to the ground for various purposes.



Activity Time

Identify the following animals and write their names. Also write where they live.













Aquatic Animals

The animals which live in or around water bodies are called **aquatic animals**. They get their food from water bodies such as ponds, lakes, seas and oceans. Fish, sea anemones, crabs, jellyfish, starfish, whales and so on are water animals. Snails and turtles are other examples of aquatic animals.

Seals, walruses and sea lions are semi-aquatic animals. They are found in the polar regions in cold sea water. They usually come onto land to take rest and to breed.



Amphibians

Some animals can live both on land and in water. They are called amphibians. Frogs, toads and newts are **amphibians**.

Many animals live in natural homes. However there are also animals which build their own homes.

Birds live in nests. They build their nests when they lay eggs. They use straw, thread, twigs, leaves, grasses, cotton, wool and feathers to build their nests. They build their nests far away from the reach of their enemies. We can see their nests in trees, buildings, holes and walls.

Sparrows and crows build deep **cup-shaped nests**. It prevents their babies from falling out.



A partridge builds its nest in the ground in a paddy field or a grassland.

Hornbills, parrots, owls and hornbills make nests in hollow spaces in trees or wells.

A weaver bird makes a nest that hangs upside down. A tailorbird makes its nest using broad leaves that are stitched together. It uses its needle-like beak to stitch the leaves.



tailorbird nest

weaver bird nest



Rabbits and mongoose dig **burrows** to live in them. Rats and moles make **underground tunnels**.

Human beings made shelters for the animals which they keep at their farms or at home. Animals like horses, cows and hens are kept on **farms**. A **shed** is built for a cow and a buffalo. A hen lives in a **coop**.



Values

We should not treat stray animals badly. We should treat them as we treat our pet animals.

Word Power

- shell** : the harder outer covering of some animals
scales : the body covering of some animals
pollination : transfer of pollen from the anther to the stigma of a plant
nectar : a sweet liquid produced by flowers and collected by bees and other insects

Summary

- Some animals live in groups such as ants, bees and so on.
- Different types of animals exhibit different types of behaviour.
- Animals help each other in numerous ways.
- Animals are very useful for human beings.
- Different animals have ears of different shapes and sizes.
- We get honey from honeybees.
- Different animals live in different shelters.
- Some animals live in natural shelters while others live in their own made or man-made shelters.



Practice Time

A. Fill in the blanks.

1. Every group of animals has their own _____ that takes important decisions.
2. Ducks and _____ give us eggs and meat.
3. Yak and _____ have long, thick hair to keep themselves warm in the cold regions.
4. A bee has a tube-like tongue which it uses to suck _____ from a flower.
5. Monkeys and squirrels live on _____.

B. Match the following.

- | | |
|-------------|--------------------------|
| 1. Hornbill | a. Burrow |
| 2. Rabbit | b. Shed |
| 3. Hen | c. Underground tunnel |
| 4. Cow | d. Coop |
| 5. Rat | e. Hollow space in trees |

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

1. Jellyfish is a terrestrial animal.
2. Frog is an amphibian.
3. An elephant lives in a den.
4. Porcupines have spikes on their bodies.
5. A horse is kept on a farm.

D. Answer the following questions.

1. Why do some animals live in groups?
2. Why is the body of a polar bear covered with thick hair?
3. What are amphibians?
4. Where does a partridge make its nest?
5. What are aquatic animals?

Brainstorm

How are frogs and newts able to live both on land and in water?

Find Out

Some animals can change their skin colour as per their surroundings. Find out the names of one such animal.

Fun to Learn

Collect the pictures of homes of some animals and paste them in your scrapbook. Also write whether their homes are natural or man made.

Life Pillars

Animals are our friend. We get many things from them. Hence, we should not harm them in any way. They should be treated with love and care.

Do to Learn More

Many animals are becoming extinct. Discuss in the class its reason and consequences.



Sources of Water



Curricular Goals

- Water-A Precious Liquid
- Sources of Water
- Dams, Reservoirs and Canals
- Water Cycle
- How Salt is Made From the Sea Water



Water-A Precious Liquid

Water is present everywhere. Approximately three-fourth part of the earth's surface is covered with water. However, only a very small portion of it is suitable for drinking. Most of the water on the surface of the earth is present in the seas and oceans which is **salty** and not fit for drinking and other activities.

Check Your Knowledge

Write the names of some activities for which you need water.

Sources of Water

We get water from many freshwater sources as mentioned below.

Rain

Rain is the **main source** of freshwater on the earth. Rainwater gets filled in ponds, lakes, seas, oceans and other water bodies.



Underground Water

Some of the rainwater percolates into the soil and reaches a layer under solid rocks. It gets collected here.

It is called the underground water. Underground water comes out to the surface as springs in some hilly regions. It can also be drawn out by digging wells, hand pumps and tubewells.



Surface Water

Water found in ponds, lakes, rivers, seas and oceans is called the surface water.

A small body of water which is surrounded by land is called a pond. Water is accumulated in ponds during rainy season. However, they dry up in summer. A lake is bigger than a pond.



Most of the rivers flow from the mountains, hills and other places which get heavy rain. The snow or ice in high mountains melts to form rivers. Such rivers carry plenty of water throughout the year and are called the **perennial** or **snow-fed rivers** such as the Ganga, the Yamuna and the Brahmaputra. They originate from the Himalayas.



Some rivers like Kaveri, Krishna and Godavari carry only rainwater and are called **rain-fed rivers**. They have plenty of water during rainy season and almost dry up during summer.



Very large bodies of water are called oceans and seas. An ocean is bigger than a sea. They have salty water. Pacific, Atlantic, Indian, Arctic and Antarctic are the five oceans on the earth.

Need to Know

Pacific ocean is the largest ocean on the earth.

Dams, Reservoirs and Canals

Dams, reservoirs and canals are also the sources of water. They are made by men. Dams are constructed across rivers to control the flow of water.

Reservoirs are **artificial lakes** in which water is collected from dams. The water collected in these reservoirs is released when the level of water in the river decreases. Electricity is also produced using the water of reservoirs.

Canals are made to send water from rivers or reservoirs to agricultural regions for irrigation.

We should not drink water directly from natural sources. It may harm us. In the same way, we cannot consume rainwater directly as it also has many impurities and germs dissolved in it. We should not dispose garbage into water bodies as it pollutes them and make their water unfit for consumption. Water bodies also get polluted because of washing clothes and bathing in them. The toxic waste from factories should not be released into water bodies because it makes their water poisonous.



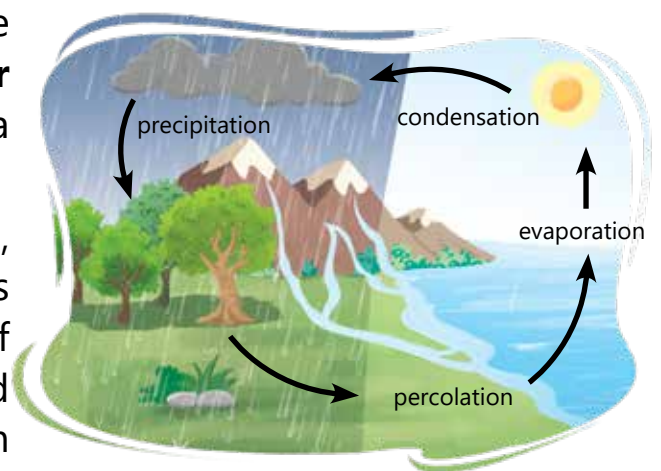
Water Cycle

The journey of water from the earth to the sky and back to the earth is called the **water cycle**. Water cycle affects the weather of a place. The sun plays an important role in it.

The sun heats up the water of rivers, lakes, ponds and seas. Some of this water changes into water vapour due to the process of **evaporation**. The water vapour thus produced rises high up in the sky and cools down to form clouds. This process is called **condensation**.

Teacher's Tips

Tell the students about the sources of water and water cycle.

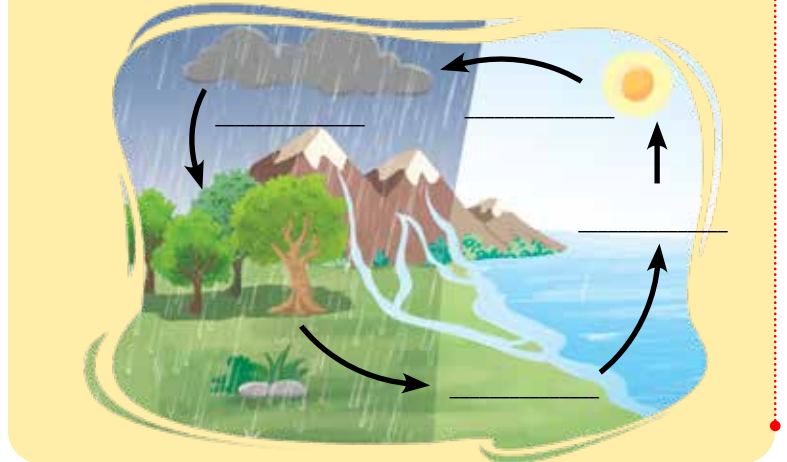


The clouds have tiny droplets of water. When these droplets become much heavier, they fall down in the form of rain. This process is called **precipitation**. Rainwater flows into rivers, lakes and ponds. In colder areas, these water droplets come down in the form of snow. The snow melts and turns into water and flows into streams and rivers. Thus, the water cycle in nature continues.



It's Activity Time

Label the three processes that cause water cycle in nature.



How Salt is Made From the Sea Water

The process of evaporation is used to make salt from sea water. The sea water is checked from flowing back into the sea by making **dykes** on the shore. These areas with dykes are called **salt pans**. The water in these pans evaporates because of the heat of the sun and leaves a layer of salt behind. The salt thus obtained is refined in factories before being used at home.

Word Power

- evaporation** : change of water to water vapour on heating
- condensation** : change of water vapour to water on cooling
- water cycle** : the cycle of water forming water vapour, clouds and then falling as rain

Values

Water is the elixir of life. It is very precious. We should not waste or contaminate it.

Summary

- Water is precious. It is needed by all animals.
- The main source of water on the earth is the rain.
- Rivers, lakes, ponds, seas and oceans are other sources of water.
- Dams, reservoirs and canals are built to store and use river water.
- Changing of water into water vapour on heating is called evaporation.
- Condensation is the change of water vapour to water on cooling.
- Water cycle is the journey of water from the earth to the sky and back to the earth.
- Water is very precious for us. We can't live without it.



Practice Time

A. Fill in the blanks.

1. _____ is the main source of freshwater.
2. Nearly _____ of the Earth's surface is covered with water.
3. Drying of clothes in the sun is due to the process of _____.
4. Falling down of water in the form of rainwater is called _____.
5. _____ is a perennial river.

B. Number the sentences in the correct order.

1. The heat of the sun heats up the water of rivers, lakes, etc.
2. When the clouds meet, these droplets come together to form rain.
3. Some of this water changes into water vapour.
4. Water vapour rises high up in the sky.
5. Water vapour cools down to form clouds with tiny droplets of water.

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

1. The main source of water on the earth is the ocean.
2. The water from the seas and oceans is not fit for drinking.
3. We can use rainwater for drinking purposes.
4. We should dispose garbage into water bodies.
5. Water cycle involves evaporation, condensation and precipitation.

D. Answer the following questions.

1. What are the main sources of water on the earth?
2. What is the difference between surface water and groundwater?
3. Distinguish between rain-fed and snow-fed rivers?
4. What is water cycle?
5. Explain evaporation and condensation.

Brainstorm

Imagine a world without water. What will it be like?

Find Out

Find out the names of the places from where the Ganga and the Yamuna rivers originate.

Fun to Learn

The names of rivers have been jumbled. Rewrite the names in the space provided.

REVKAI _____

MANUYA _____

ANGAG _____

MHAANDAI _____

DAVAIROG _____

MBAHAAPUTRR _____

Life Pillars

We should not let the water leak from the taps of our house. It is a waste of water. By fixing one leaking tap, we can save over 3000 gallons of water in a year.

Do to Learn More

1. Find out about rainwater harvesting and how it is useful for us.

2. Separating Salt from Water

Things Required

1. Baking sheet 2. Black paper 3. Salt 4. Water 5. Glass

Procedure

- Take some salt water such as water from the sea. If you do not have a source of salt water, mix some salt and water in a glass.
- Dissolve the salt completely in the water.
- Lay the black paper on the baking sheet.
- Pour the salt water into the baking sheet. Ensure that the black paper is fully covered with water.
- Place the baking sheet in the sun or on a table by a window and leave it for two days.
- You will notice that when all the water is evaporated, salt crystals are left over. This is how salt is made from sea water.





Water Pollution



Curricular Goals

- Water Pollution
- Potable Water
- How to Purify Water
- How to Handle Water Safely
- Conservation of Water



We are aware of the fact that water is very useful for all living beings. A large number of animals such as starfish, coral reefs, sharks, whales live in seas and oceans. Birds like flamingoes, storks and ducks live near the water bodies. A large number of plants are also found in water. They are called water plants. Lotus, lily, hydrilla and many others grow in water.

Teacher's Tips



Tell the students about water pollution and potable water. Also tell them about how to purify water and make it safe for drinking.

Water Pollution

We get water from different freshwater sources like ponds, lakes, rivers, wells and hand pumps. This water cannot be used directly for various domestic purposes, particularly cooking and drinking as it may be contaminated and may cause us fall ill. When something unwanted is mixed with water of different water bodies and it makes the water dirty and unfit for consumption, it is called the **water pollution**. Water pollution is increasing day by day due to factors like increasing population and industrialization. Polluted water is very harmful for aquatic life. It may kill many water animal and plant species.

Water bodies gets polluted because of several reasons as mentioned below.

- Water gets polluted if dead animals are thrown in water.
- If we make our animals bath in water bodies, the water gets polluted.
- We should not bathe, urinate and defecate near water bodies as it causes water pollution.
- Factory wastes released into water bodies causes water pollution.
- Oil spills from oil tanks threatens aquatic life.
- Dumping garbage into rivers and lakes causes water pollution.
- If we use fertilizers excessively in the fields near water bodies, it also causes water pollution.

We should try to keep our water bodies safe and free from pollution. For this, we can take several steps as mentioned below.

- Never bath, urinate and defecate near water bodies.
- Never let your animals bathe in water bodies.
- Factory and domestic wastes should be treated before they are released into water bodies.
- Reduce the use of fertilizers in the fields.
- Do not throw garbage into water bodies.



Check Your Knowledge

1. What do you do to stop water pollution?

2. Is there shortage of water in your locality? Why? Why not?

Potable Water

Water from all sources is not safe for drinking. Water which is safe for drinking is called **potable water**. Safe water or potable water is generally colourless, odourless and tasteless.

We should not drink unclean water as it can cause several diseases such as cholera, dysentery, typhoid and diarrhoea. Sometimes even the water that reaches our homes through taps is not fit for drinking. However, it is treated in water treatment plants before it reaches our homes through pipes. Sometimes the water gets impurities and disease causing germs due to rusting or leakage of pipes.



How to Purify Water

We can purify water and make it safe for drinking. There are several methods used to purify water.

Boiling

Boiling is one of the most common and best methods of making water safe. It kills the germs present in water. We should boil the water for about 15 minutes and then cool it before using.



Using Filters

Filters can also be used to clean water. In rural areas, some people tie a piece of cloth to the mouth of a tap which works as a filter. In urban areas, people use water filters which have a ceramic candle or electric filters. It removes impurities from water.



Activity Time

Take some water in two cups. Cover one of the cups with a plate and leave the other as it is. Put both the cups with water at some place in your house. Observe water in both the cups after two days. Write your observation in the space given below.



Adding Chemicals

Chemicals such as iodine or chlorine are added to water to make it safe for drinking. The ratio of water and the chemical should be appropriate.

How to Handle Water Safely

It is essential to store drinking water safely. For this, we should use clean and covered containers so that it cannot be dirty. Drinking water should not be stored for a very long time. You can use the stale water to clean utensils or to water the plants. You should take out water from the container with a long-handled ladle. Never dip any utensil in the container with your hand.



Conservation of Water

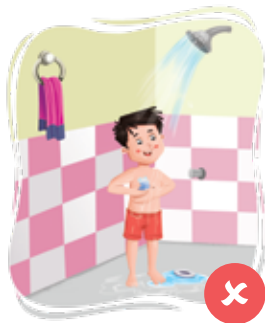
The demand for water is growing day by day because of the growing population. Hence, water from different water resources are being used to a great extent and it is leading to the shortage of water.

Water is very valuable for us all. Hence, we should use it wisely and not waste it in any way. The wise and judicious use of water is called water conservation.

Need to Know

The level of underground water is going down to an alarming state because of its over exploitation.

We can conserve water in the following ways.



Take a bath with the help of a bucket and a mug. Do not take a shower to avoid the wastage of water.



Do not let water flow unnecessarily while washing clothes.



Close the tap while you are brushing your teeth.



Wash your vehicles with wet cloth and water in a bucket.

You should water your plants early in the morning or late in the evening. It reduces the loss of water because of evaporation.

Values

Some people, while watering plants at their homes, waste a lot of water. They should water the plants without wasting it. Also, in winters, they can water the plants once in two days.



Word Power

- Impurities** : unwanted material mixed with something
- Unwanted** : that which is not required
- Germ** : disease-causing bacteria
- Over exploitation** : using something to a great extent

Summary

- A large number of animals and plants are found in and around the water bodies.
- When water is contaminated because of undesirable things, it is called water pollution.
- Water pollution harms all living forms.
- Water which is safe for drinking is called potable water.
- Water can be purified by several methods such as boiling, filtration and by adding chemicals.
- Water is very valuable. Therefore, we should conserve it and use it judiciously.



Practice Time

A. Fill in the blanks.

1. _____ is an example of an aquatic animal.
2. We can purify water by _____ and _____.
3. Water that is safe for drinking is called _____ water.
4. Water should be stored in covered _____.
5. Polluted water can cause diseases like _____ and _____.

B. Define the following.

1. Potable water
2. Conservation of water
3. Aquatic animals
4. Water pollution

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

1. Polluted water is safe for drinking.
2. Boiling is one of the best methods to kill germs in water.
3. Water from all sources is not safe for drinking.
4. The demand for water is increasing day by day.
5. We should not throw garbage in water bodies.

D. Answer the following questions.

1. How is water polluted?
2. What are the methods used to purify water?
3. What is water conservation?
4. When should plants be watered?
5. What are the harms of water pollution?

Brainstorm

Why is water conservation essential? What will happen if we do not conserve water? Discuss.

Find Out

We should not let the water get collected in or around our houses. Mosquitoes grow in collected water and spread diseases. Find out which diseases these mosquitoes spread.

Fun to Learn

Divide the class into two groups. One of the groups will make a poster on 'Ways to stop Water pollution'. Second group will make a poster on the theme 'Conservation of Water'.

Life Pillars

In some parts of our country, there is acute shortage of water and people do not get sufficient water for their daily needs. Any wastage of water can lead to its shortage in our region also. Therefore, it is utmost important that we use water wisely.

Do to Learn More

Several diseases are caused due to the consumption of polluted water. Enlist at least two diseases caused by water pollution. Also write the symptoms of these diseases.

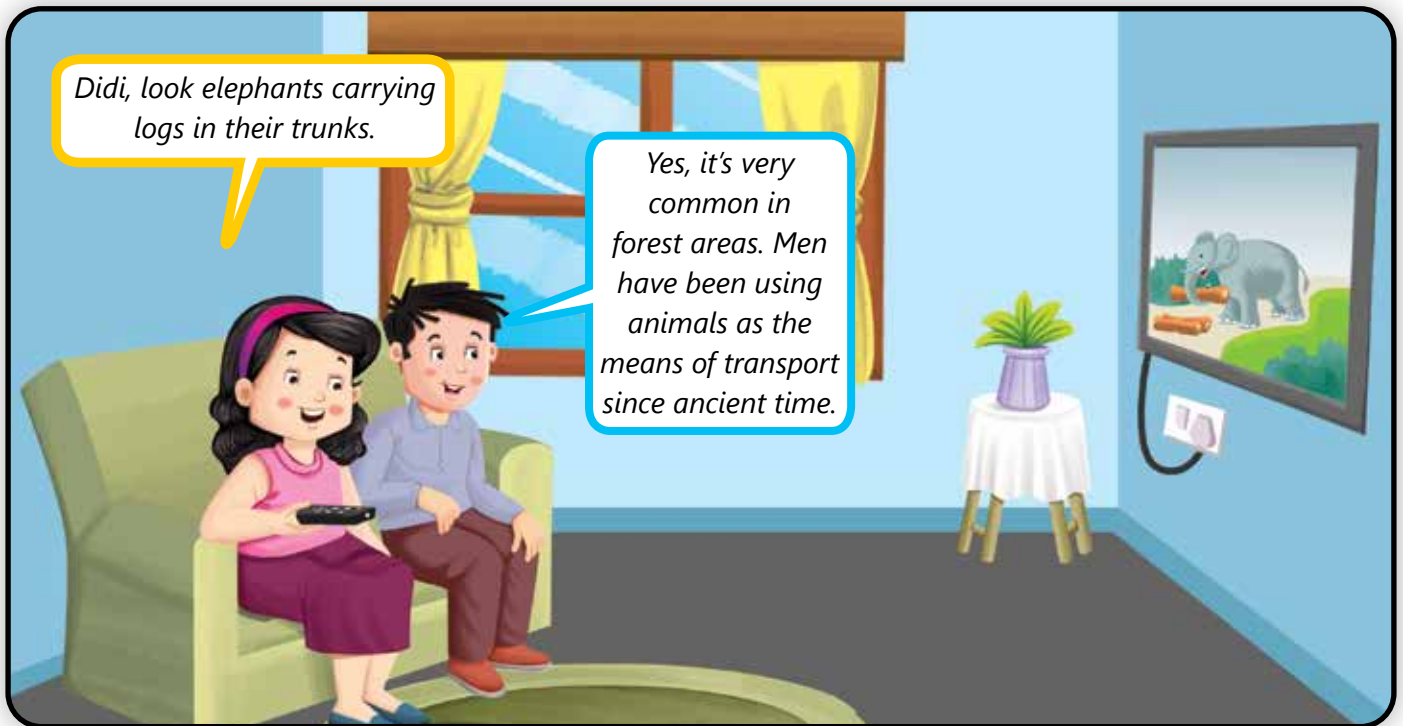
Name of the Disease	Symptoms
1. _____	_____ _____ _____ _____
2. _____	_____ _____ _____ _____



Animals Used For Transportation

Curricular Goals

- Animals Used for Riding
- Draught Animals
- Beasts of Burden
- Take Care of Animals



Animals Used For Riding

Several animals are used to go from one place to another. They are called **riding animals**.

People in rural India use carts which are pulled by animals such as horses and bulls to travel or to carry goods. In hilly regions, ponies, mules, donkeys and horses are used to go from one place to another. In deserts, people use camels as a means of transport.

Nowadays camels, elephants and horses are used for joyrides. We can see them in marriages, birthday parties and fairs.



Pause to Do

Have you ever taken a ride on some animals? When? Where?

We can still see tongas or horse carriages in some parts of our country. They are pulled sometimes by two horses and sometimes only one horse.



Beasts of Burden

Some animals are used to carry load such as camels, donkeys, ponies and mules. They are called the beasts of burden or **pack animals**. Beasts of burden are mostly used in mountainous and desert regions where *pucca* roads cannot be built. Elephants are used to carry heavy logs of wood or fallen tree trunks in forests. In some mountainous areas, yaks are also used as the beast of burden.

Need to Know

A buggy is a horse carriage which has four wheels.



Draught Animals

Animals such as oxen, bullocks and donkeys are used to pull carts, plough fields or draw water. They are called draught animals.



Take Care of Animals

Animals are living beings. Like us, they also get tired and feel hungry. However, they are unable to express their feelings. We ought to be sensitive and compassionate to them. We should take proper care of them. We should not make them work for very long hours. Neither we should load them with overweight. We should keep our pet and farm animals in proper shelters and give them enough food and clean water. Take them to a veterinary doctor if they feel unwell.



Values

We should not show any cruelty to animals. They play a very important role to keep the environment balanced.

Teacher's Tips



Tell the students about different animals which are used as the means of transportation.

Word Power

transportation : the movement of goods and people from place to place and the various means

buggy : a carriage with four wheels driven by one or more horse

beast of burden : animals that carry load

Summary

- Riding animals are used for riding such as donkeys, horses and mules.
- We can see animals such as elephants and camels giving rides in fairs and marriages.
- Animals that carry load are called beasts of burden.
- The animals which are used to plough fields, draw water or to pull carts are called draught animals.
- We should be kind to animals and take proper care of them.



Practice Time

A. Fill in the blanks.

- _____ has used the animals since very early time.
- _____ animals are used to go from one place to another.
- In deserts, people use _____ as a means of transport.
- _____ are pulled by horses.
- _____ is a beast of burden.

B. Write one example of each of the following.

- Riding animal _____
- Beast of Burden _____
- Draught animal _____

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

- Animals that carry load are called draught animals.
- Animals are not living beings.





3. We should be kind to animals.
4. We should not tease animals.
5. Elephants are used as a means of transport in forest areas.

C. Answer the following questions.

1. What do you mean by beasts of burden?
2. What are riding animals?
3. Give two examples of pack animals.
4. What are draught animals? Give two examples.
5. How should we treat pet and farm animals?

Brainstorm

Some people use animals for entertainment particularly in circus. Is it fair to misuse animals for entertainment? Discuss.

Find Out

Horses are made to wear horseshoes. Why? Discuss with your friend.

Fun to Learn

There are several NGOs which take care of stray animals. Visit such an NGO with your teacher and find out how they work.

Life Pillars

Animals prove to be great friends if they are treated well and friendly. Cats and dogs are the great examples of animal-human being friendship. Dogs are considered the most faithful animals and are known for their loyalty for their masters.

Do to Learn More

Given below are the pictures of some animals. Write below them whether they are riding, beast of burden or draught animals.











Curricular Goals

- Travelling
- We Have to Pay for Travelling
- Currency



Travelling

When we move from one place to another which are located at a long distance, it is called travelling. Every one of us travel because of several reasons. Some people travel for work while others travel for entertainment. There are several modes of transport being used for travelling. We can use either private or public transport for travelling. Vehicles such as cycles, cars, motorcycles and scooters which are owned by us are called **private means of transport**. Buses, autos, trains, ships and planes are not owned by us. They are the means of **public transport**. When we use public transport, we have to pay for travelling.

Teacher's Tips



Tell the students about travelling and the currency. Explain to them how they can purchase or book a ticket for their travel.

Check Your Knowledge

1. How do you travel to your maternal grandparents' home?

2. Do you know any person who has travelled to any other country? Which means of transport did he use?

We Have to Pay for Travelling

We need to purchase a ticket whenever we travel by public transport such as bus, train, ship or plane. We have to pay money to buy a ticket. While travelling by a plane or a train, we need to book our ticket before we travel. However, during our travel by a bus, we can purchase the ticket from the conductor in the bus.

Train tickets can be booked at the ticket office on the railway stations. We need to book plane tickets at the airline offices on airports and ship tickets, at various shipping agencies. However, now the tickets of train, plane and ships can be booked over computer or cellular phone through the Internet. When we book ticket in this way, we need to pay the fare digitally using net banking, credit card or debit card. When we book a ticket through the Internet, we can take out a print and use it as a ticket to travel.

When we travel by an autorickshaw or a taxi, we don't need to buy a ticket. We have to pay cash directly to the driver.



train ticket

Activity Time

Find out the procedure of booking online ticket of a train and write the steps below.

Currency

The money which we pay for goods and services is called the currency. Every country across the globe has its own currency.

Need to Know

Pound sterling is the world's oldest currency still in use.

Activity Time

What is the currency of the following countries called?

Bhutan _____ Nepal _____ Poland _____
 USA _____ Japan _____ Britain _____

Rupee is the currency of our country. We use both the paper notes and coins. Coins are made in mints. The currency of our country is issued by the **Reserve Bank of India (RBI)**. Earlier the notes and the coins were not the same as we use today. Notes and coins currently in use differ from the earlier ones in denomination, colour and the value.



coins used in earlier times

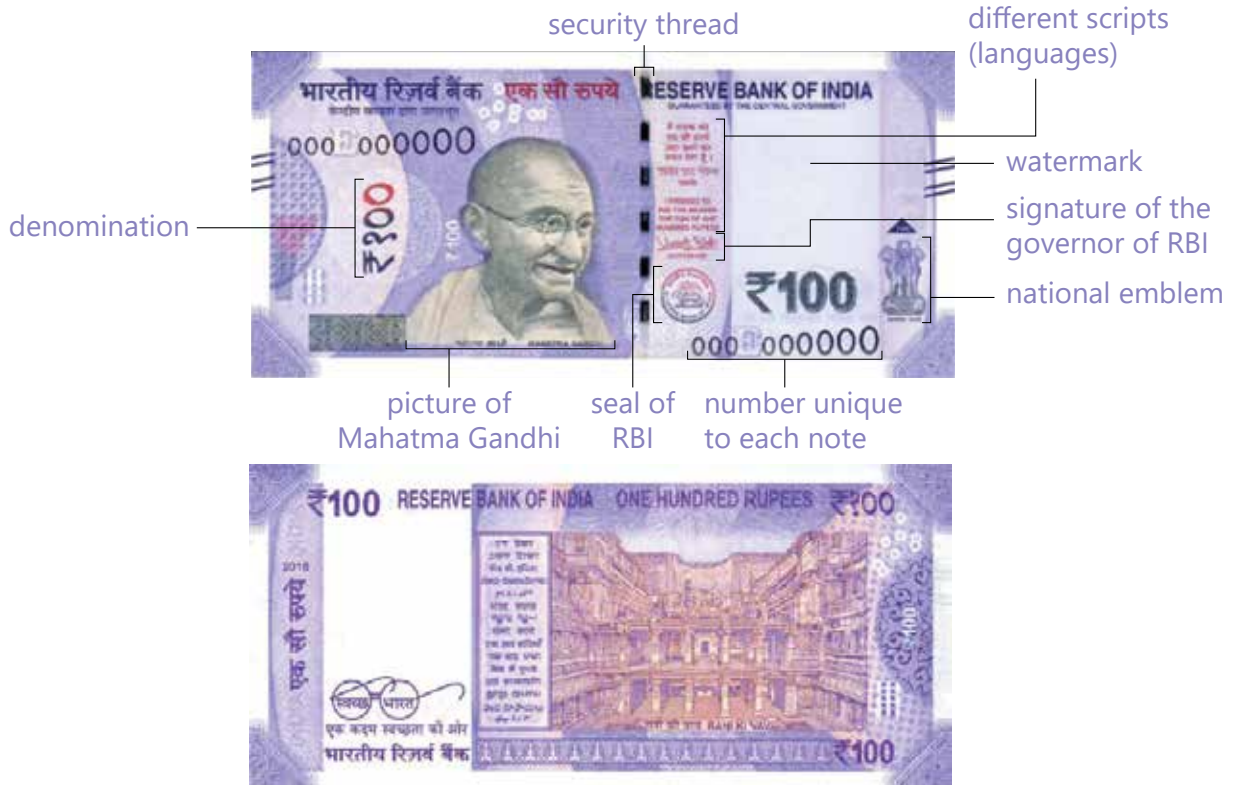
Symbols on the Currency

Different symbols are used on the currency of different countries. We can identify the country of the currency just by looking at the symbols and signs. On the currency of our country, we can see the national emblem and the name of the country printed on one side and the denomination and the year of issue on the other side.



coins used today

Every currency note has two sides as shown below.



A **watermark** is added to prevent the circulation of fake currency. It is a pattern on a currency note. It is visible when we pass light through it. Every currency note also has a security thread. It is a thin ribbon woven into a note. It is there for stopping imitation of notes.

Values

While travelling by an autorickshaw or a taxi, always check the meter before you pay the fare. Also, be sure that they have restarted the meter before you begin your journey.

Word Power

- mint** : place where coins are made
- denomination** : the value of currency notes or coins
- watermark** : a faint mark impressed on some paper during manufacture visible when paper is held up to the light

Summary

- All of us travel for different reasons.
- We can travel using public or private vehicles.
- When we travel by public transport we need to pay money for fare.
- When we travel by bus, train, plane or ship, we need to buy a ticket.
- Every country has its own currency.
- The currency of our country is rupee.
- The notes and coins in use today are different from those used earlier.



Practice Time

A. Fill in the blanks.

1. When we move from one place to another, it is called _____.
2. _____ is a means of public transport.
3. When we use public transport, we have to _____ for travelling.
4. We have to pay money to buy a _____.
5. We need to book plane tickets at the airline offices on _____.

B. Define the following.

1. Currency
2. Mint
3. Water Mark

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

1. All coins have a picture of our national flag.
2. The distance of travelling is not mentioned on the train ticket.
3. Each note has a unique number.
4. The Punjab National Bank of India issues all notes and coins in India.
5. All notes have the signature of the Prime Minister of India.

C. Answer the following questions.

1. What do you mean by public transport?
2. What do you mean by private transport?
3. Where do you buy train tickets from?
4. What is the importance of water mark and security thread at the note?
5. Why is currency important?

Brainstorm

There are some people who charge foreign tourists more than the actual fare. Is this right? Why? Why not?

Find Out

What do you mean by Euro? In which countries is it used? Discuss with your friends.

Fun to Learn

1. Take a currency note of India and find out how many language are printed on it.
2. Which are the animals whose pictures are printed on Indian currency note.

Life Pillars

Our National Emblem has 'Satyameva Jayate' written below it. It means 'Only the truth triumphs'. It inspires us to follow the truth in our life.

Do to Learn More

1. Where our National Emblem has been taken from? How many lions has it?



2. Given below is a five hundred note of India. Complete its labelling.



Curricular Goals

- Construction of House
- How Bricks are Made
- Bridge



Construction of House

Construction of a house is a very time-consuming task. A large number of materials is required to make a house. Several people work together as a team using their own tools to do their job.

When a person wants to build a house, he first of all needs a piece of land. After purchasing the piece of land, we need an **architect** who draws the plan of the house that exhibits where each room will be built. An architect uses the tools such as a computer, drawing board, compass and scale to do his work. Once the plan is ready, it is sent to the concerned authorities for approval. After approval the **mason** and his helpers lay the walls, pillars and roof of the house.



Several materials such as cement, sand, gravel, bricks, etc. are used to make the walls and roof. Mason uses the tools such as trowel, shovel, plainer and chisel. Nowadays, generally bricks are used to make walls of a building. They are long-lasting, easily available, cheap and very useful building material. However, in ancient time people built mud walls.

How Bricks are Made

Clay is first crushed and then mixed with water to make a smooth mixture. After it, a dough is formed by rolling and kneading. Then this dough is put into a brick-cutting machine to obtain rectangular shape bricks. Now, raw bricks are put in trays, one on top of the other and baked in a **kiln**. These bricks are baked slowly to avoid cracks. Then the trays of bricks are taken out to cool the bricks. Nowadays modern brick factories are fully automatic. Here, mixing, drying, cooling, and packing is done by various machines.



kiln

Check Your Knowledge

Which material is used to make bricks?

Need to Know

The temperature in a kiln ranges between 600°C and 1100°C.

When the mason and his helpers have completed the foundation, a **plumber** fits the pipes and taps in it. For doing his work, he uses several tools such as screwdriver, spanner, pipe bending machine, wrench, pliers and hammer.

The electric work in the house is completed by an **electrician**. He uses tools like hammer, screwdriver, soldering iron and nuts and bolts.



Teacher's Tips

Tell the students about different types of building material and how a house is built. Also tell them about different types of bridges.



Carpenter prepares the shelves, cupboards, windows and doors of the house with the help of tools such as saw, chisel, screwdriver and nails to cut and shape the wood. Thereafter, a **painter** paints the house. He uses the tools such as rollers, spray paint guns, brushes and ladders.



Check Your Knowledge

Are there some other people who contribute in the building of the house? Write their names in the space given below.

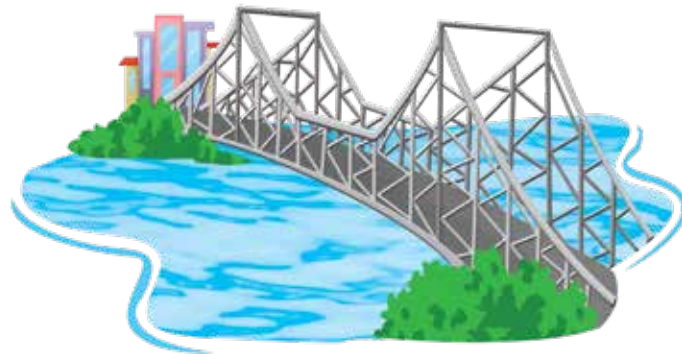
Bridge

Bridges have been in use since very ancient time when they were very simple. People would use fallen trees, logs, wooden planks and stones as bridges to cross a river. The earliest bridges were **beam bridges**. They were flat stones or tree trunks laid across a stream.



Clapper bridges were also in use. They were the pile of stone slabs that served as the beams. They were supported by short pillars.

Later on more complicated bridges such as cantilever, arch and suspender bridges were built. The bridge built by using cantilevers is called a **cantilever bridge**. A cantilever is a structure that projects horizontally upwards and is supported only at one end. The **Howrah Bridge** in Kolkata is an example of a cantilever bridge.



The bridges which are made in the shape of an arch are called **arch bridges**. Earlier they were made of stones or bricks but nowadays reinforced concrete or steel is used in their construction.



Activity Time

Visit a place where some bridge is being constructed with your teacher or parents. Have a meeting with an engineer there and find out how they build bridges. Also check what material they use.

Need to Know

A pontoon bridge is a temporary bridge made of rubber boats tied together.



Suspender bridges hang from steel cables supported by two towers. The towers are either on each side or in between if it is a long bridge. The **Vidyasagar Setu** over the River Hooghly connecting, Howrah to Kolkata and **Laxman Jhoola** in Rishikesh are the examples of a suspender bridge.

The bridges in which portion of the bridges moves up or down or swings from side to side to let water pass through are called **movable bridges**. These bridges are on waterways or where the river opens into the sea. The **Garden Reach Swing Bridge**, Calcutta Port, in Kolkata is a movable bridge.



Values

Everyone who takes part in the building of a house is very important. We should give respect to every work people do.

Word Power

- time-consuming** : that which takes much time
- architect** : one who draws the plan of a building
- kiln** : a furnace used to bake bricks

Summary

- Several people contribute in the construction of a house.
- Different people working in the construction of a building use different types of tools.
- Architect, mason, plumber, electrician, painter and carpenter are some people who help in the construction of the house.
- Bricks have been used in the construction of a building since very ancient time.
- Bricks are baked in kilns.
- There are several types of bridges.



Practice Time

A. Fill in the blanks.

1. The earliest bridges were _____ bridges.
2. _____ bridges are built in the shape of an arch.
3. _____ is used to make bricks.
4. The Vidyasagar Setu is an example of a _____ bridge.
5. Raw _____ are baked in a kiln.

B. Define the following.

1. Arch Bridge
2. Cantilever Bridge
3. Clapper Bridge
4. Suspender Bridge

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

1. A carpenter uses rollers, spray paint guns, etc. to paint the house.
2. Bricks are made from clay.
3. A plumber helps the architect in drawing the plan of a building.
4. Clapper bridges were the piles of stone slabs.
5. A beam bridge is made of rubber boats.

D. Answer the following questions.

1. What materials are used to make buildings these days?
2. How are bricks made?
3. What do you mean by a bridge? Write its various types.
4. What materials are used to make modern bridges?
5. How are bridges important for us?

Brainstorm

Building a house on an unauthorized land is not right. Why? Discuss with your friends.

Find Out

Find out the name of the longest bridge of India. Where is it located?

Fun to Learn

Make a model of a suspended bridge with the help of threads.

Life Pillars

Some people do not use good quality material in the construction of bridges and fly overs. As a result, they all of a sudden fall down causing loss to life and property. It is not a good practice. They should be encouraged to do their work honestly.

Do to Learn More

Given below are the pictures of some bridges of India. Write their names.





Test Paper - 1

A. Fill in the blanks.

1. A baby comes from his/her _____ body.
2. The head of your family is your _____.
3. We hear sounds with the help of our _____.
4. A _____ makes different types of idols.
5. In a _____, children eat together in a common dining hall.

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

1. We should not share joys and sorrows with family members.
2. Bad touch make us feel uncomfortable.
3. A cobbler writes news stories and articles.
4. Claws help birds to sleep.
5. Herons have chisel-shaped beak.

C. Write the reasons for the following.

1. Ducks have webbed feet.
2. We should use water judiciously.
3. We need a supportive family.
4. Plants are our green friends.
5. Exercise is necessary for good health.

D. Answer the following questions.

1. How do your grandparents help you?
2. How is our skin helpful for us?
3. How does a potter make different types of pots?
4. How do you dispose of the waste produced in your home?
5. Which games did your grandparents play when they were young?



Test Paper - 2

A. Fill in the blanks.

1. _____ makes the teeth strong and protects from cavities.
2. People living in _____ have houses with sloping roofs.
3. A political map shows _____ or _____.
4. Every group of animals has their own _____ that takes important decisions.
5. _____ is a perennial river.

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

1. Insecticides are used to keep human beings away from the crops.
2. We should not tease animals.
3. Bricks are made from clay.
4. *Goli* is a childhood game.
5. The demand for water is increasing day by day.

C. Write one word for each of the following.

1. The process of making the soil of field soft _____.
2. He draws sketch of the buildings _____.
3. A bird with chisel-shaped beak _____.
4. A biodegradable waste _____.
5. It is extracted from seeds _____.

D. Answer the following questions.

1. Which foodstuffs rot earlier?
2. What are the main sources of water on the earth?
3. What are the methods used to purify water?
4. What are riding animals?
5. Why is currency important?