



GOVERNMENT OF KARNATAKA

ENVIRONMENTAL STUDIES

TEXT CUM WORK BOOK

(REVISED)

ENGLISH MEDIUM



FOURTH STANDARD

KARNATAKA TEXT BOOK SOCIETY (R.)

100 Feet Ring Road, Banashankari 3rd Stage,
Bengaluru - 85.

Preface

The Textbook Society, Karanataka has been engaged in producing new textbooks according to the new syllabi prepared which in turn are designed based on NCF - 2005 since June 2010. Textbooks are prepared in 12 languages; seven of them serve as the media of instruction. From standard 1 to 4 there are the EVS, mathematics and from 5th to 10th there are three more core subjects namely mathematics, science and social science.

NCF - 2005 has a number of special features and they are:

- connecting knowledge to life activities
- learning to shift from rote methods
- enriching the curriculum beyond textbooks
- learning experiences for the construction of knowledge
- making examinations flexible and integrating them with classroom experiences
- caring concerns within the democratic policy of the country
- making education relevant to the present and future needs
- softening the subject boundaries-integrated knowledge and the joy of learning
- the child is the constructor of knowledge.

The new books are produced based on three fundamental approaches namely Constructive Approach, Spiral Approach and Integrated Approach.

The learner is encouraged to think, engage in activities, to master skills and competencies. The materials presented in these books are integrated with values. The new books are not examination oriented in their nature. On the other hand they help the learner in the all round development of his/her personality, thus helping him/her become a healthy member of a healthy society and a productive citizen of this great country, India.

Young learners in their initial stages of learning i.e., between the ages of 5 and 10, acquire most of the concepts which they need in consolidating learning in later stages. If this learning is properly planned and well executed in the classroom, children may find learning easy and enjoyable.

Based on these principles, in the early stages from class 1 to 5, the following subject areas have been introduced- Mother tongue, state language, English as a practice language, mathematics and environmental studies. Environmental studies include science and social science related to their daily life experiences, information about their environment, society, country, their duties and rights. These topics are presented through interesting situations and activities. Opportunities have been provided for self learning and creativity. At this stage importance is given to children sitting in pairs and groups and to exchange their experiences. The efforts have been made to make illustrations colourful, attractive and meaningful. Teachers are expected to make use of these and help children learn meaningfully and with pleasure. The textbooks aim at making learning interesting, enjoyable and satisfying.

The Textbook Society expresses grateful thanks to the chairpersons, writers, scrutinisers, artists, staff of DIETs and CTEs and the members of the Editorial Board and printers in helping the Text Book Society in producing these textbooks.

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About the book

This text book is developed based on the guidelines of the National Curriculum Framework (NCF-2005), set by the National Council of Educational Research and Training (NCERT) considering the progress in the research and development and the new challenges that humankind is likely to face in the years to come.

While attempting to adopt the NCF 2005 framework to the text books of 'Environmental Studies' for classes 3 and 4 for the State of Karnataka, we have taken into account the socio-economic, environmental and cultural aspects of the State for easy connect and better understanding. We have tried integrating the science and social science concepts by softening the subject boundaries in the text books of Environmental Studies. The idea is that the children should view the natural and the social environments in a holistic manner from the beginning of the school education. We have included a wide range of topics from family to plants and animals to festival on the lines of the NCF 2005 guidelines.

As students move from 2nd standard to higher standards, their observation skills using their senses to gather and record information improve. During this stage, the students are able to observe, explore, experiment, read, write, possess the knowledge of numbers, appreciate, empathise and ask questions about their immediate environment. They start understanding the perspectives. Students discover wider range of things and phenomena, though still predominantly focussed on their immediate environment and day-to-day experiences. They begin to make links and apply knowledge of environment to their daily life. Considering these developments, we have introduced some of the basic concepts of their immediate natural and social environment in the textbooks. We have designed these books with objective of familiarizing children with their surroundings / local knowledge so that they start appreciating the environment they are living in and value every component that comes with it. We also have included simple activities involving observation, measurements, analysis, synthesis to engage them in the learning process and make the learning exciting and participative. The idea is also to stimulate children to enquiry - based learning. We have tried our best to make these books gender neutral in terms of language and presentation of the concepts. At the beginning of every lesson, we have given the competencies that the children should develop after each lesson, to help teachers facilitate the learning process. We have made the books as attractive as possible with illustrations. This has an added advantage of making communication simple and easy.

While the thought provoking para of Rabindranath Tagore from 'Civilization and Progress', which NCF 2005 opens with, is indeed inspiring for every teacher to search and adopt new and innovative teaching-learning approaches, encouraging children's creative spirit and enquiry-based learning, we welcome comments and suggestions from the teachers, parents and public for further refinement.

Environment Education is that Education of the Environment, through the Environment and for the Environment, natural and social.

Dr. R. Shailaja,

Chairperson, Text Book Committee.

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About the Revision of Textbooks

Honourable Chief Minister Sri Siddaramaiah who is also the Finance Minister of Karnataka, in his response to the public opinion about the new textbooks from standard I to X, announced, in his 2014-15 budget speech of constituting an expert-committee, to look into the matter. He also spoke of the basic expectations there in, which the textbook experts should follow: “The textbooks should aim at inculcating social equality, moral values, development of personality, scientific temper, critical acumen, secularism and the sense of national commitment”, he said.

Later, for the revision of the textbooks from class I to X, the Department of Education constituted twenty seven committees and passed an order on 24-11-2014. The committees so constituted were subject and class-wise and were in accordance with the standards prescribed. Teachers who are experts in matters of subjects and syllabi were in the committees.

There were already many complaints, and analyses about the textbooks. So, a freehand was given in the order dated 24-11-2014 to the responsible committees to examine and review text and even to prepare new text and revise if necessary. Eventually, a new order was passed on 19-9-2015 which also give freedom even to re-write the textbooks if necessary. In the same order, it was said that the completely revised textbooks could be put to force from 2017-18 instead of 2016-17.

Many self inspired individuals and institutions, listing out the wrong information and mistakes there in the text, had send them to the Education Minister and to the Textbook Society. They were rectified. Before rectification we had exchanged ideas by arranging debates. Discussions had taken place with Primary and Secondary Education Teachers’ Associations. Questionnaires were administered among teachers to pool up opinions. Separate meetings were held with teachers, subject inspectors and DIET Principals. Analytical opinions had been collected. To the subject experts of science, social science, mathematics and languages, textbooks were sent in advance and later meetings were held for discussions. Women associations and science related organisation were also invited for discussions. Thus, on the basis of all inputs received from various sources, the textbooks have been revised where ever necessary.

Another important aspect has to be shared here. We constituted three expert committees. They were constituted to make suggestions after making a comparative study of the texts of science, mathematics and social science subjects of central schools (NCERT), along with state textbooks. Thus, the state text books have been enriched based on the comparative analysis and suggestions made by the experts. The state textbooks have been guarded not to go lower in standards than the textbooks of central school. Besides, these textbooks have been examined along side with the textbooks of Andhra Pradesh, Kerala, Tamil Nadu and Maharashtra states.

Another clarification has to be given here. Whatever we have done in the committees is only revision, it is not the total preparation of the textbooks. Therefore, the structure of the already prepared textbooks have in no way been affected or distorted. They have only been revised in the background of gender equality, regional representation, national integrity, equality and social harmony. While doing so, the curriculum frames of both central and state have not been transgressed. Besides, the aspirations of the constitution are incorporated carefully. Further, the reviews of the committees were once given to higher expert committees for examination and their opinions have been inculcated into the textbooks.

Finally, we express our grateful thanks to those who strived in all those 27 committees with complete dedication and also to those who served in higher committees. At the same time, we thank all the supervising officers of the Textbook Society who sincerely worked hard in forming the committees and managed to see the task reach its logical completion. We thank all the members of the staff who co-operated in this venture. Our thanks are also due to the subject experts and to the associations who gave valuable suggestions.

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LESSON – 1

THE ANIMAL KINGDOM

After studying this lesson you,

- *identify the similarities and differences between human beings and animals(external characteristics).*
- *understand the relationship (mutual dependance) between human beings and animals.*

In your previous class, you have learnt about different animals. You know that birds and insects are also animals. Do you know that we, human beings are also animals? Observe the animals that you see around you. Identify the similarities that you find between animals and yourself.

- 1) _____
- 2) _____
- 3) _____



Look at the pictures above. Observe the differences between you and a cow.

Write the differences that you have observed in the table given below.

I	Cow

Vanaja, of class 4, is a smart girl. She has made a list of animals, that she saw when she went on a field trip with her teacher. But she has forgotten to write their size, colour, food and dwelling. You write them.

Sl. No.	Name of the animal	Size	Colour	Food	Dwelling
1.	cow				
2.	fish				
3.	crane				
4.	butterfly				
5.	monkey				
6.	garden lizard				
7.	rabbit				
8.	grasshopper				
9.	tortoise				
10.	bat				

Fill in the blanks :

- A few animals like fish live in _____.
- Monkeys, birds and insects live on _____.
- Many animals like _____ and _____ live on land.

Different animals eat different kinds of food.

- Animals which eat the products of plants such as grass and leaf etc., are called _____ .
- Animals which eat flesh, egg and other products of animals are called _____ .
- Animals which eat products of both plants and animals are called _____ .

Observe the size of the animals you see around you. Spill a few grains in the yard of your house. Sit far away and observe the shapes and sizes of the birds and insects that come to eat those grains.

- From which animal is the milk used in your house got from?

- Make a list of the food items used in your house. Draw a circle around the food items obtained from the animals.

_____, _____, _____, _____, _____,

_____, _____, _____, _____, _____.

- Write 5 uses of animals to us.



The picture given above shows how the animals are useful to us. Write these uses in the space provided in the picture.

Do you rear animals in your house ? How do you look after them?

Sathish and Joseph are friends. Sathish has come to Joseph's house to meet him. Here is a problem. The dog is guarding Joseph's house. Help Sathish to reach Joseph's house without being caught by the dog.



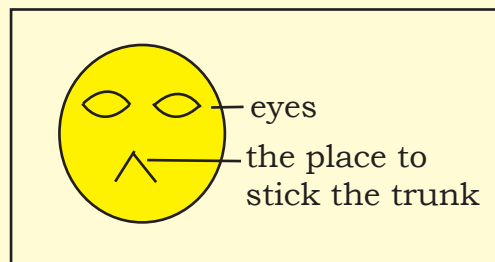
Match the following.

Animal	Use
ox	wool
buffalo	ploughing
sheep	honey
hen	milk
horse	eating dead animals and keeping the environment clean.
honey bee	horse carriage(jutka)
fish	egg
eagle	eating insects in water and keeping the water clean.

Do it yourself.

Here are a few tips to make an elephant's mask.

1) Draw a line like the face of an elephant on a thick card board or a sheet of paper as shown in the picture. Let that mask be a little bigger than the dimension of your face. Mark holes for the eyes, as shown and cut it.

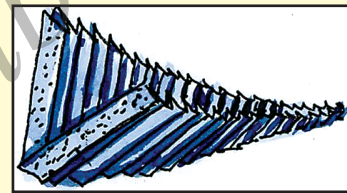
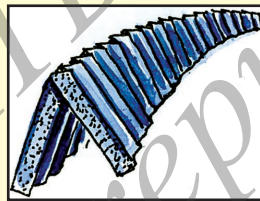
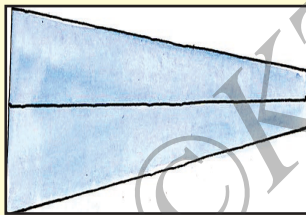


2) Draw the shape of ears on another card board or a sheet of paper as shown in the picture and cut it. Paint the face and the ears. Stick the ears to its place.



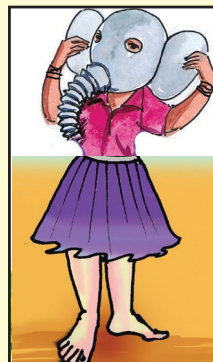
3) Take a long cardboard or a sheet of paper to prepare the trunk. Paint this sheet. Fold it in the middle. Cut it and let one side be broader than the other.

Fold the paper from one side as shown in the picture. Press the foldings for some time.








Stick the broad side of the paper to the part of the trunk. Make small holes on both sides of the mask. Tie a piece of thread, joining both the sides.

4) Now the mask is ready. Put it on your face and enjoy.



(Prepare the mask of different animals with the help of your friends and enjoy.)

Who am I ?

• I have colourful feathers, I am the village clock.	
• I am big with a large belly. I have tails both at the front and at the back.	
• I have a very small, smart body, long ears and small whiskers. I hop swiftly.	
• I climb the top of the tree, where no one can climb. I eat fruits.	
• I am the aunt of the tiger, I eat rats.	

Do you know this ?

- The tiger is the national animal of India. Now-a-days the number of tigers is decreasing. The project tiger, a project of the Government of India is to preserve tigers.
- The number of insects is very large in the animal kingdom.
- A cheetah runs at 100 km per hour.
- The blue whale, which is 33 m long is the biggest animal in the animal kingdom.
- Some animals like chameleon and leaf insects change their colour to suit their environment to protect themselves from enemies.

LESSON – 2

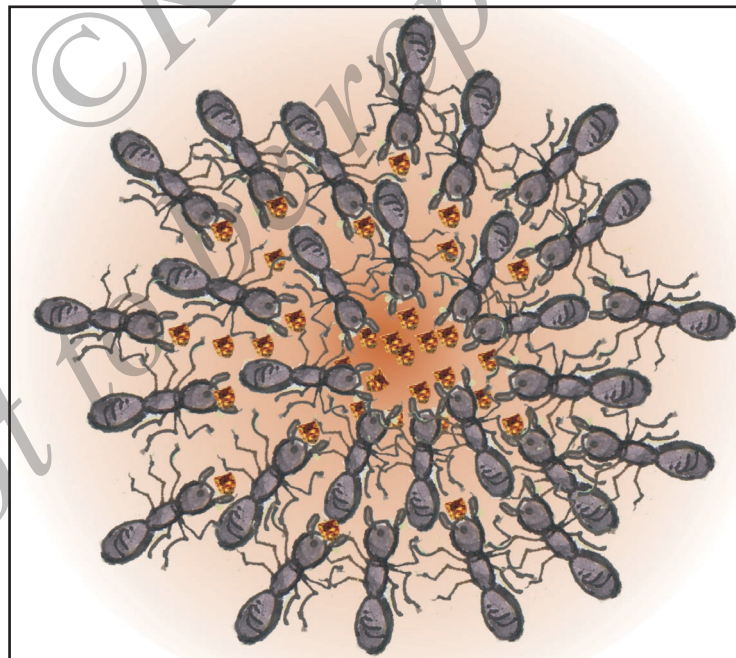
HONEY, SWEET HONEY

After studying this lesson you,

- *observe the behaviour of animals.*
- *know the process of collecting honey and its uses.*

Children were standing in a corner in the village fair eating some sweet meat. A few pieces of sweet meat fell on the ground. Soon a few ants gathered around the pieces of sweet meat to eat.

Fathima : Look here Radha, how many ants have gathered around the pieces of sweet meat!



Radha : Yes Fathima, See, how unitedly they are carrying their food

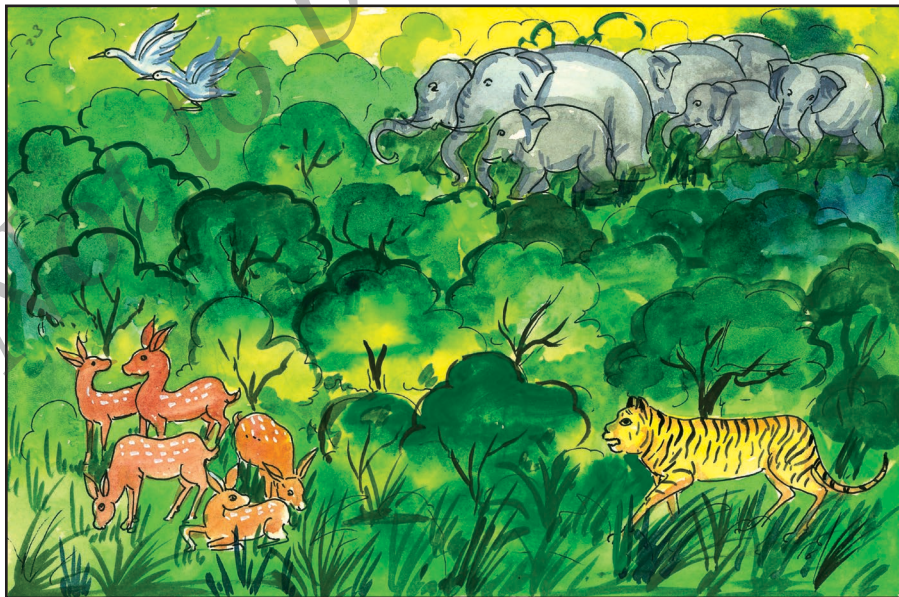
Tejas : Oh! Look, there. How lovely the kittens are!

Fathima : Oh! How white they are! The cat is licking the kitten with love.



Radha : Animals also live together like human beings, don't they?

Tejas : Yes, my father told me that most of the animals live together. Once, When I had been to Nagarahole forest, I saw a herd of deer and elephants also in groups. I saw a tiger also. But it was all alone.



Fathima : Look at the dogs fighting for a piece of bread.

Radha : Look at the sky. The birds are flying together.



Tejas : Yes, Radha. Look at the tree! The monkey is sitting on a branch.

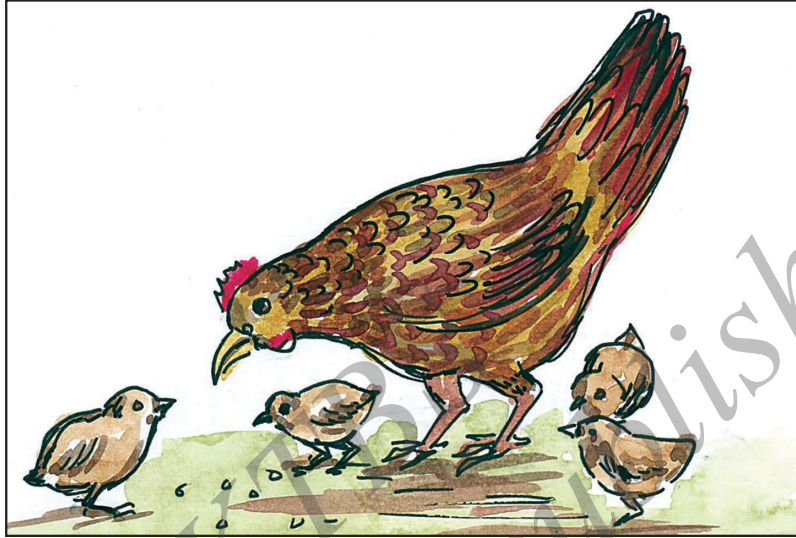
Fathima : The baby monkey is holding on to the belly of its mother.



Radha : Oh! What if the baby monkey falls down?

Tejas : No, the baby monkey is holding its mother very firmly.

Radha : Look there, Tejas. The hen is teaching its chicks how to search for food.



Observe the behaviour of animals around you as these children have done.

Fathima : Look at the honey bee, sucking nectar from a flower.



Radha : Come, let us talk to the honey bee.

Tejas : Honey bee, honey bee, where is your hive?

Honey Bee : Look there, my hive is in that tree.



Tejas : We see only the bees there.

Honey bee : That is my family.

Fathima : What! You have such a big family !

Honey bee : Yes, there are thousands of bees in a family. There is one queen bee and the rest are worker bees. The worker bees do the works such as building the hive, collecting food, looking after the queen bee etc. The work of the queen bee is only laying eggs.

Radha : Oh!

Tejas : Your hive looks very beautiful!

Honey bee : We produce a sticky material called wax. We build the hive with the wax. We build it on the branches and in hollows of trees, terrace of the big buildings, etc.

Fathima : Your food is the nectar of the flowers, isn't it?

Honey bee : Yes, we store the nectar in the hive and eat it when we need food. It is the honey.

Tejas : I too like honey. My grandmother told me that it has medicinal qualities.

Honey bee : True. Do you know that all the honey you eat is not pure. People mix jaggery or sugar syrup to honey and sell it.

Fathima : Then how do we find out whether the honey is pure or not?

Honey bee : Do this.

Do it yourself

Take a glass tumbler. Put some water in it. Add two or three drops of honey into the water. If it mixes with water, before it settles down, it is not pure honey. If it settles down and mixes with water very slowly, then it is pure honey.

Now, do you know which is pure honey?

Tejas : Oh!

Honey bee : Oh! it's getting late. I have to collect the nectar. I have to leave you children.

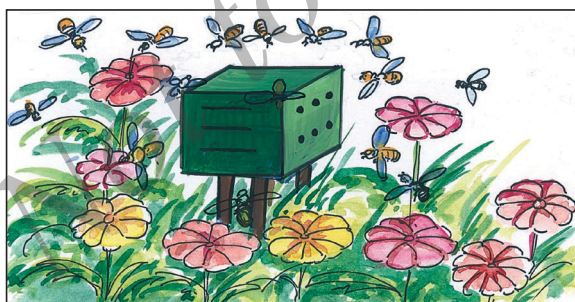
Radha : All right, honey bee. Let us meet again.

Fathima : Do you know I have seen small bees. They build a hive in the space between the stones.



Observe the pictures. The size of the bees and the type of the hives are not same. Observe the different types of bees and hives around you.

Tejas : I have seen the rearing of bees and collection of honey near Nagarahole forest.



Fathima : Wooden honey boxes are kept in gardens. People get the honey collected in it.

Tejas : Yes, I have seen such boxes in my uncle's garden.

Radha : A lot of honey is used at home. I like honey very much.

Tejas and Fathima : We like it too.

Radha : My grandfather tells me that there are other products from the hive.

Do you use honey at home? For what purpose do you use it ?

Sing and enjoy

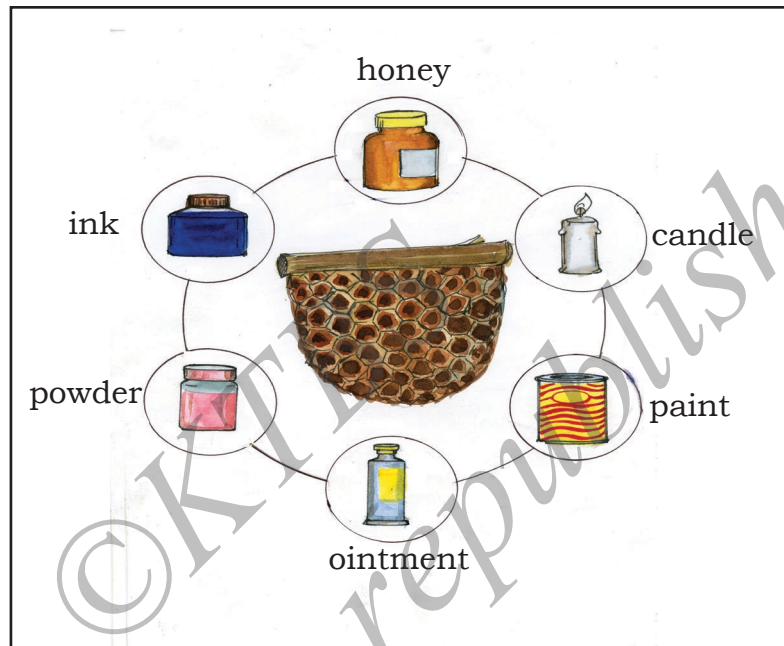
*Bees are going in big big swarms
from flower to flower, here and there
Collecting nectar, Oh! So sweet
And then they return to their combs.*

*Bees, Bees, big and small
How good they look in varieties though!
Producing lots of wax and honey
Only for us, not themselves.*

*Preserve the bees who produce honey
Bees are our dear, dear friends
They provide honey for our health
Its use is unlimited.*

Which are the other things available to you from the hive?

Look at the picture and understand.



Do you know this ?

- A honey bee, collects nectar from 50 to 100 flowers in one round.
- The only food that man eats produced by the insects is honey.
- As the ants and white ants burrow the ground and allow the air to pass into the soil, the plants grow luxuriantly.
- Hives, nests, ant-hills, termitaria and spiders' web etc., are the wonderful constructions of the animal kingdom.
- The ant which carries leaf on its back to protect itself from the sunlight is called umbrella ant(sauba ant).

LESSON – 3

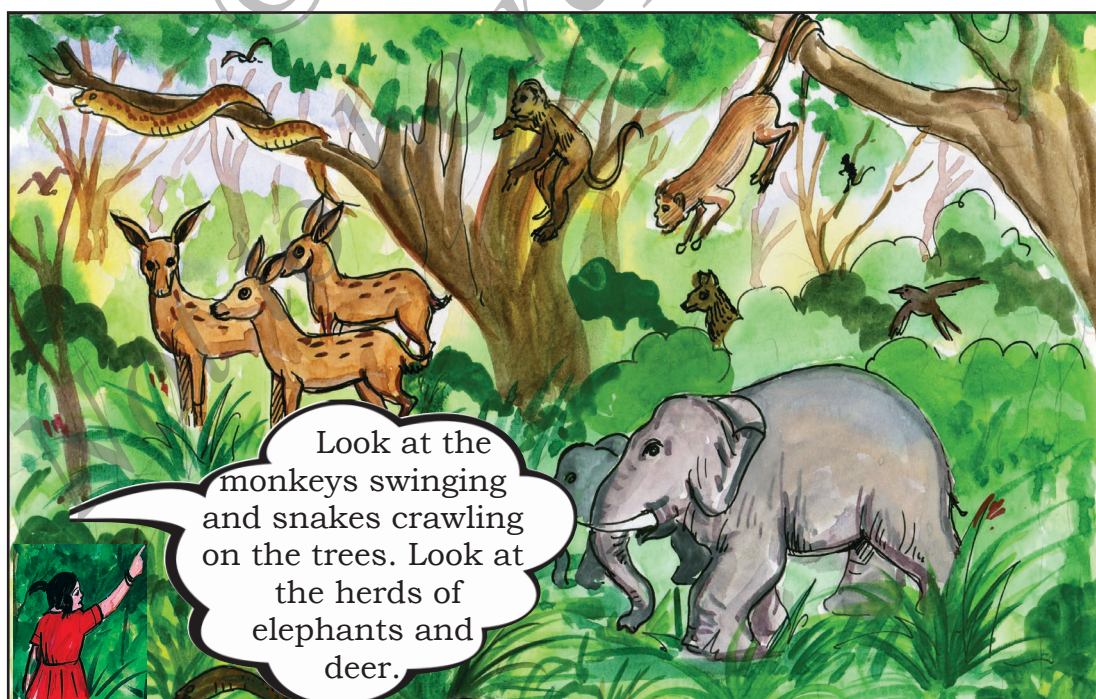
GO AROUND THE FOREST

After studying this lesson you,

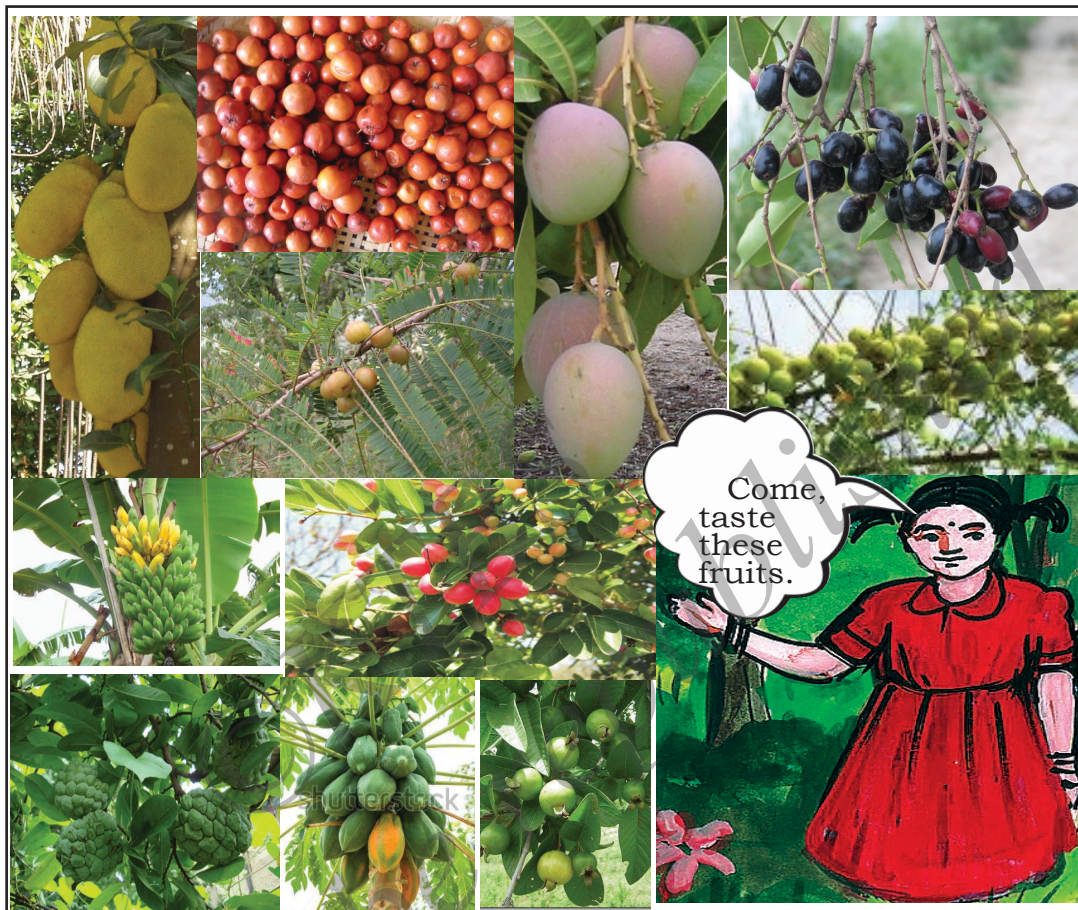
- *know about trees that are near the house and in the forest.*
- *know about the fruits available in the forest.*
- *develop the attitude of not felling the trees as they are ours.*
- *realize the necessity of growing trees.*

Sita lives with her family on the outskirts of a forest. Besides her family, there are many of other families too. Sita loves the forest and the trees in the forest. Now she will introduce the forest where she lives. Listen to her.









Draw a circle around the fruits you have eaten in the picture given above.

Make a list of fruits which are available or grown in your locality.

_____ , _____ , _____ , _____ , _____ ,
 _____ , _____ , _____ , _____ , _____ .

Do you know that the trees in the forest provide us with so many things? Look at the picture and know this. Write the names of the things given in the picture under them.



In your previous class, you have learnt about the trees. Name 10 trees that grow in you place. Do these trees grow in the forest also? Know from your elders.

_____ , _____ , _____ , _____ , _____ ,
 _____ , _____ , _____ , _____ , _____ .

Make a list of 5 trees that grow in your place and in the forest.

Trees that grow in your place	Trees that grow in the forest
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Observe the trees in the pictures. Write two uses of each tree in the space given. Take the help of elders.



Teak wood tree



Sandal wood tree



Jamboo tree



Banyan tree



Pongamia



Neem tree



Gooseberry



Bamboo

You already know the things obtained from the forests. What will happen if the forest is destroyed? Think and answer.



Know this

In the previous class you have learnt about the Chipko Movement. Do you know the reason for this movement? In the western ghat region of our state, the destruction of forests has increased due to paper industry, plywood industry, hydro-electric plant and construction of dams etc. As a result of this, the forests that existed for many generations were destroyed. This affected the life of the people. Angered by this, people embraced the trees whenever someone came to cut down the trees and prevented the destruction of the forest. Their desire for conserving the forest was successful. The forest department accepted their demand for growing more trees and plants. Cutting down trees and use of forest products were prohibited. The slogan of Chipko Movement was 'Save forest, Grow forest and Use forest.'

Answer the following questions in brief.

1. What is a forest ? Write your opinion.

2. Write the name of 5 plants that grow generally in forests.

_____, _____, _____, _____, _____

3. Write the name of 5 animals that live in forests.

_____, _____, _____, _____, _____

4. Name 5 fruits that are available in forests.

_____, _____, _____, _____, _____

5. Write 5 uses of forests.

Practise to grow and protect plants (mango, coconut etc.) near your house, school and your locality.

Do it yourself

First decide where to plant saplings and how many saplings are to be planted. Whether to plant a sapling that gives fruits or flowers or shade. Then get saplings from the nursery of the forest department or neighbours who have grown such saplings. Otherwise, with the help of your friends, sow the seeds in the school backyard or near your house and allow them to grow. Dig a pit so that the roots are covered and fill half of the pit with soil. Pull out the sapling which is soaked with water from the ground or the plastic bag without damaging its roots. Place the sapling in the pit and fill the pit with soil. Press the soil with your hands near the stem so that the sapling should stand straight and firm. Make a bed around the sapling. Later pour some water. Put a small tree guard around it, so that it is not eaten by goats and other animals. Water the plant regularly. Take the help of your family members and friends in growing the trees.

Sing and enjoy

Trees add beauty to nature
Lot of greenary and fruits they give
Air, Water, Food and Energy
This is what we get from trees
Trees are nature's boon to us.

Sing and enjoy

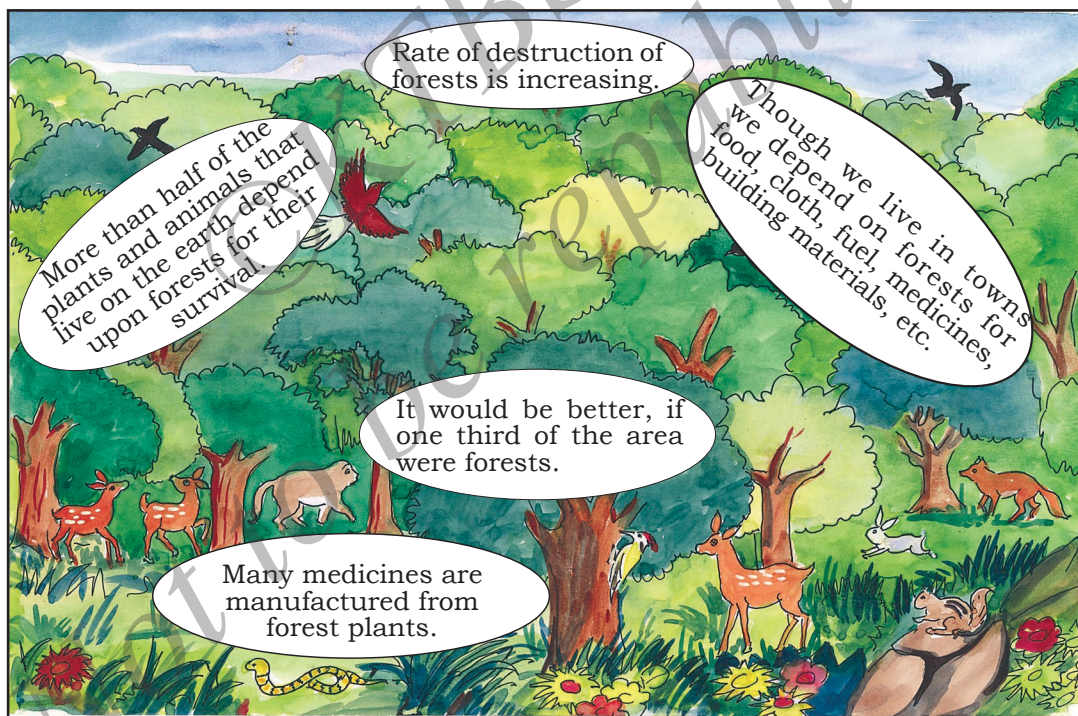
No land without forests
No fruits without trees
No fauna without fodder
No life without these.

Write the names of trees (saplings) that are planted in the yard of your house or school.

Sl.No.	Name of the tree(sapling).
1.	
2.	
3.	
4.	
5.	

Collect the pictures of trees from the newspapers/ books/magazines. Paste them in your used note book. Then collect and write the information about those trees.

Sl.No.	Name of the tree	Usefulness
1.		
2.		
3.		
4.		
5.		



Write slogans about conservation of forests.

Do you know this?

- *Bomboo belongs to the grass family.*
- *Some plants grow from the leaves.*

For example, *Bryophyllum.*



- *The seeds of mangrove plant which grow in the coastal region, germinate on the plant itself. Later on seedlings fall on the ground and grow.*
- *The plants such as pitcher plant, Drosera and cobra lily eat insects. They are called insect eating (insectivorous) plants.*



Picther plant

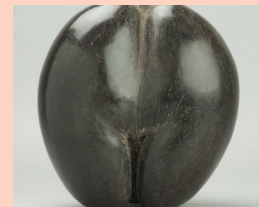


Cobralily



Drosera

- *The seed of coco-de-mer is the largest seed in the world. It weighs nearly 18 kg.*



- *Karnataka has 5 National Parks, 5 Bird Sancturies, and 16 Wildlife sancturies.*

LESSON – 4

ROOTS - SUPPORT OF THE PLANT

After studying this lesson you,

- *make a list of the functions of roots.*
- *observe that the roots of some plants are modified into food.*

You have already learnt about the plant in your previous class. You have also observed different parts of plants. Name the parts of the plant given in this picture.



Where do the roots of a plant grow ?

Have you seen the roots of the plant ?

Which plant's roots have you seen ?

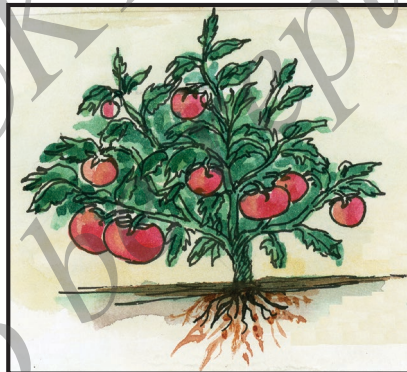
What is the colour of the root ?

Do it your self

Take two coconut shells or small tin boxes. Fill both of them with soil. Put some ragi or paddy grains in one shell. Don't put anything in the other shell. Sprinkle some water on both the shells daily. The ragi or paddy grains germinate within a week. After seedlings grow bigger, invert both the shells. Observe the soil of both the shells.

Write 2 of your observations here.

Roots bind the soil particles together like a web. This supports the plant to stand straight on the ground.

**Do it yourself**

Take some horsegram seeds and sow them in the garden of your school or house. Saplings sprout after a few days. Pull out two such plants gently without damaging roots. Cut the roots of one plant. Let the other plant be as it is. Take two pots having wide mouths. Make holes at the bottom of the pots so that the excess water can be drained out. Fill both the pots with soil and place one plant in each pot. Keep them in the sun light and pour sufficient water daily. After 2 or 3 days observe changes in the plants.

Write 2 of your observations

Plants need water to grow.

Do it yourself

Take a glass bottle or tumbler. Fill it with water. Add one or two drops of red ink or any other colour. Pull out balsam plant from the soil gently without damaging its roots. Wash the roots of the plant and put the plant in the coloured water. Keep it in the sun light. Observe the plant the next day.



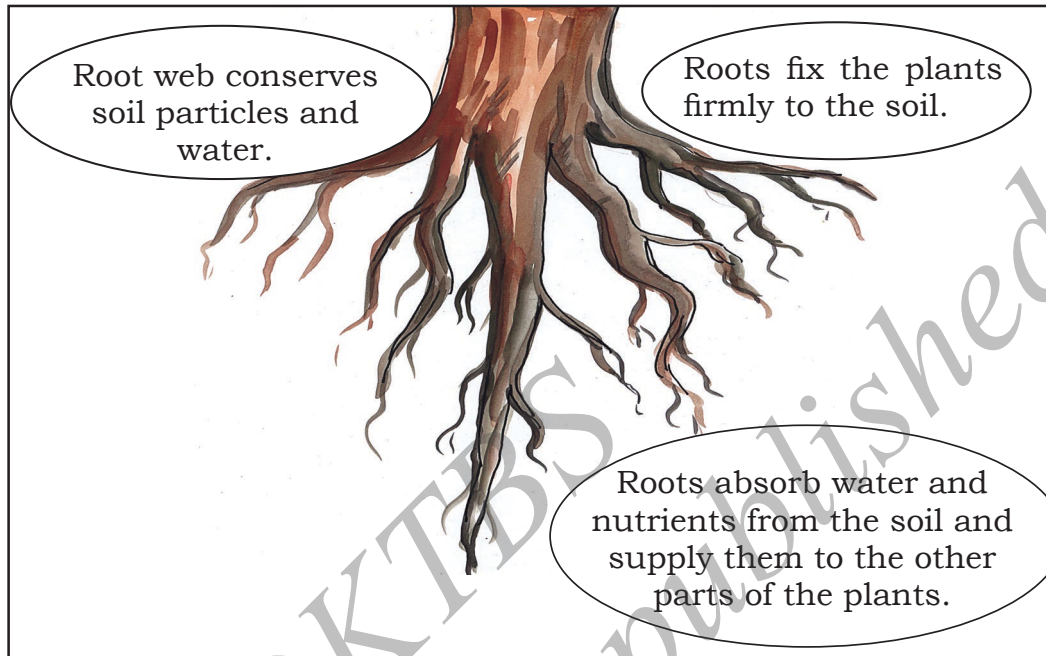
What did you observe? What is the reason for it?



Know this

The roots absorb water and nutrients essential for the plants from the soil .Water and nutrients reach the stem and leaves through the roots.

The Root is the supporter of the Plant



Name the vegetables given in the above pictures.
Do you use them in your house? Why? From which part of the plant do you get them?

Write the names of 4 roots that you use. Also write down why you use them. One is done for you.

(Get the help of your teacher/elders.)

Sl.No.	Roots	Use
Example	Ashwagandha	Medicine
1.		
2.		
3.		
4.		

Do you know this ?

- There is a record that, a farmer in Britain grew a carrot as long as 19 feet in the year 2007.
- The root of a plant of grass family is 600 km. This is the distance from Bengaluru to Kalaburagi.
- There are records that, a banyan tree spread more than 5 acres with the help of its proproots.
For example, the big banyan tree in Bengaluru.
- Some plants (appu plants) grow on trees. The roots of these plants are green and open to air. They absorb the moisture from the air.
- The roots of some plants which grow in the places of scanty rainfall have the capacity to store water and provide to the plants when they need. Certain tribal people use the water from the roots to drink. There is a record of roots which store about 70 kgs of water.

LESSON – 5

FLOWERS - COLOURS

After studying this lesson you,

- collect different kinds of flowers and discuss about their shape, colour, petals and fragrance.
- identify the uses of flowers in daily life.
- recognize flowers printed on different objects.
- know the informal measurements used by florists and the cost of the flowers.

On a lovely morning many girls in the school had plaited their hair and wore jasmine flowers on their plaits.

Teacher : Oh ! There is good fragrance in this room !

Haseena : Sir, some girls have jasmine flowers on their plaits

Vijaya : Yes, now it is the season of Jasmine flowers, isn't it?

Teacher : In summer there is jasmine, in rainy season there is dahlia and in winter there is chrysanthemum. Thus, there are different flowers in different seasons.

Activity : Make a list of flowers available in your locality. In which season are they available? Why do people use them? Collect information about this and write it in this table.

Name of the flower	Plant/Bush/Tree/Creeper	Season of availability	Use

Collect the flowers that are available in your locality. Observe them carefully and write their characteristics in this table.

Name of the flower	Colour	Shape	No. of petals	Fragrance Yes/No

Teacher : Come let's go to the nearby garden and get introduced to a variety of flowers. But nobody should pick flowers.

(All of them went to the garden)



Haseena : Oh! So many flower blossoms! The garden looks very beautiful. There is also a sign board **Don't pick flowers.**

Teacher : Yes, follow that instruction. You also practise to grow flowers near your home and the school.

Nagaraja : Look, there are flowers even in that pond.

Teacher : Children, name 3 flowers that grow in water.

Sing and enjoy

*I am in the garden,
used to worship God.
The garlands are fine,
used for decoration.
I am the food for honey bee,
Medicine for the diseases.
My fragrance is in the perfume
My uses are plenty
I am better than human beings.*

Sing and enjoy

Florist

*"Fragrant flowers
Who needs
Buy them
Sure to be yours"
Moves the flower seller
Singing from door to door. || 1 ||*

*Jasmine white
Gold flower yellow
Murugha fresh green
All knit in garlands
Come and buy
And all for you. || 3 ||*



*Announcing her wares
Marigolds fresh
Lilies jasmine
Yellow palmyra
Twined together
Like of yours. || 2 ||*

*Red roses
Radiant lilies
Blossomed lotuses
Milk white lily
Yellow as well
All are yours. || 4 ||*

*Need varieties of
Fragrant flowers
I have them
So sings the florist
Walks slowly
In front of your houses. || 5 ||*

Do you use flowers?

Do your family members use flowers?

Do you grow or buy the flowers used at home?

Girija : Shahina's father has a flower stall.

Vijaya : Shahina, from where do you get flowers?

Shahina : My father buys flowers from the market. All of us at home string them.

Teacher : Shahina, what's the price of jasmine flower per kg? How do you sell it after you string them?

Shahina : Today's price of jasmine flower is ₹ 250 per kg. We sell at ₹ 10 for a cubit length.

Teacher : Do you know about the cubit length and yard?



Fathima : Yes, one yard is equal to four cubit length.

Teacher : These are units of informal measurement. Use of these measurements is useful to the people who string flowers, sellers and buyers of flowers.

Do it yourself

If the cost of one kg of jasmine is ₹ 250, how much will be the cost of 5 kg of Jasmine?

If a cubit length of flower costs ₹ 4, how much will be the cost of one yard length of flowers?

Go to the market of your locality. Know the price of 5 different kinds of flowers and write them here. One example is given here.

Name of the flower	Measurement	Price
Example : Jasmine	One cubit length	₹ 10/-

Teacher : Plant the saplings of flower plants in the yard of your house or grow them in pots. Practise to use flowers.

Vijaya : Sir, Haseena's dress has the design of so many flowers on it.

Teacher : Yes, you can see the designs of flowers on different things. Flowers inspire the painters.

Observe the things around you. Which things do you find having flower designs?



Do it yourself

Collect flowers. Dry the petals well. Prepare greeting cards with them and give them to your friends and neighbours.

Learn to prepare different flowers from colour papers.

Draw flowers on papers, small vessels and pots. Colour them



Do you know this?

- The flower of *Rafflesia* plant is the largest flower. Its circumference is 1 meter and it weighs 7 kg. But its seed is as small as a poppy seed. This flower has a very bad smell.
- The flower of *Wolffia*, a water plant of India is the smallest flower. A number of *Wolffia* flowers can be placed on the tip of a needle.
- *Lantana* flower is one among the world's 15 most beautiful flowers.
- Not only perfume is extracted from rose, but a sweet called *gulkand* is also prepared from it.
- Karnataka is a prominent state in the field of floriculture. According to a report 75% of the country's flowers are grown here.
- The flowers of our country are exported to foreign countries also.

LESSON – 6

EACH DROP.....

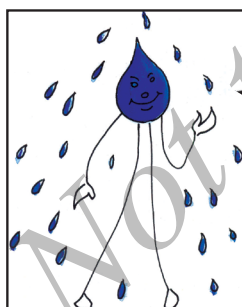
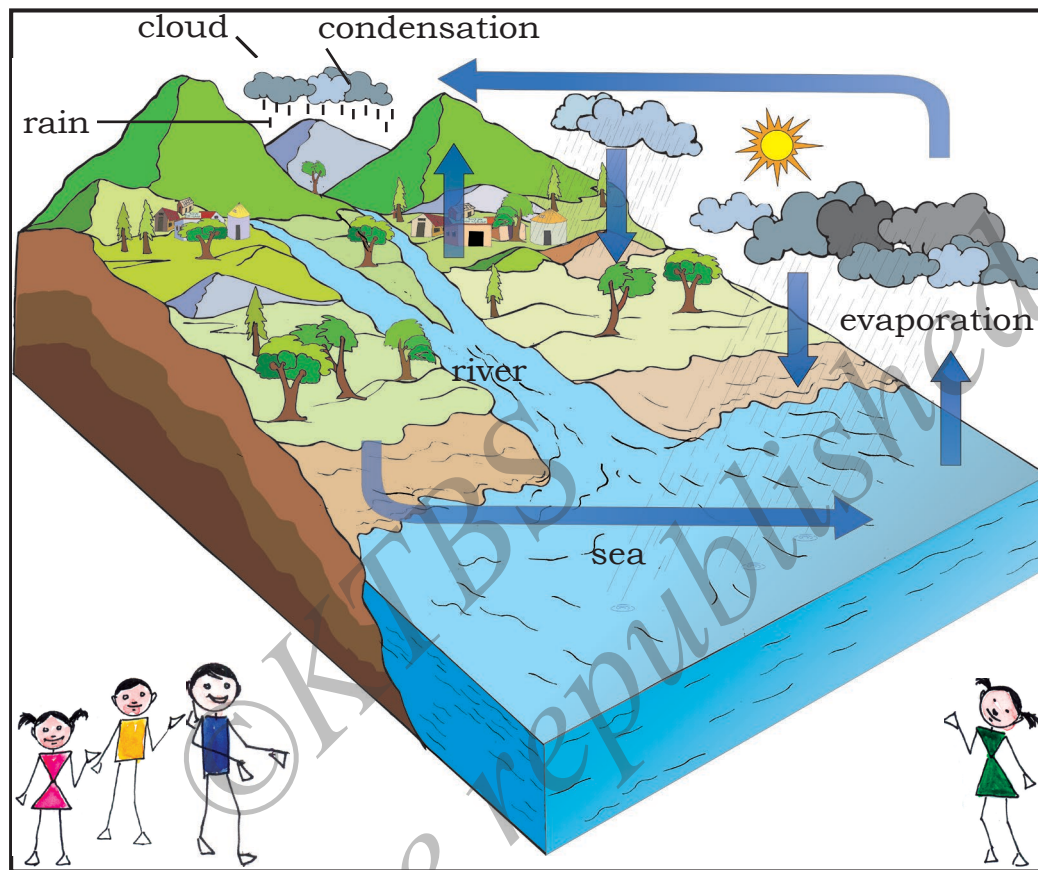
After studying this lesson you,

- explain the water cycle.
- measure the water used in daily life by using informal measurements.
- classify the sources of water that are suitable for drinking.
- make a list of problems caused due to shortage and wastage of water.
- understand the importance of re-cycling of water and rain water harvesting.



Three parts of the earth is full of water.
The water evaporates due to heat of the sun;
The water vapour travels towards the sky,
It gets cooled and changes into water droplets;
The droplets of water together form clouds,
The clouds float so high in the sky;
Cold cold wind around the clouds,
The droplets of water become heavier;
And fall in the form of rain;
The rain water joins streams and ponds;
This water evaporates once again.

Singing this song observe the picture given on the next page.

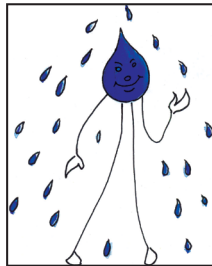


Oh!.....What's
that picture
you are
looking at?

This is
the picture
of the water
cycle.



Water cycle!
What is it?



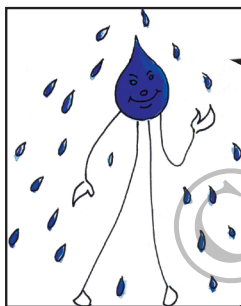
Where do you see the water being evaporated in your house? Write in the space given.





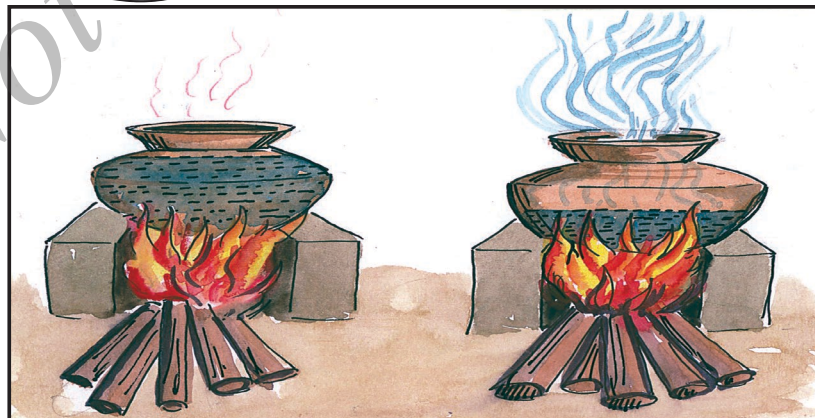
Know this

When the water boils, it evaporates. In the same way, due to the sun's heat water gets evaporated.



Observe the vessel on the stove while cooking.

Even in school you can do the experiment of boiling water.



Write the differences that you have observed in this experiment in the space given.

Due to the heat, water boils, gets evaporated and rises up. Then the amount of water in the vessel decreases.

What happens to the water that has evaporated?

The evaporated water gets mixed in the air.

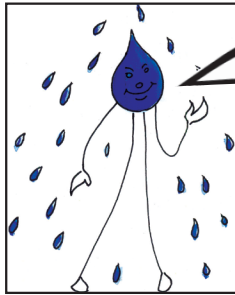
Let's conduct an experiment to know what happens to the evaporated water.

Know this

Water is a liquid. When it is boiled, it becomes vapour. This is the gaseous state of water. This process of changing water from liquid state to gaseous state is called **evaporation**.

Do it yourself.

Take a small plastic bag. Pour some water into it. Tie the open end of the bag with a thread. Place the plastic bag in the sunlight. Observe the bag after one or two hours.



Answer these questions.

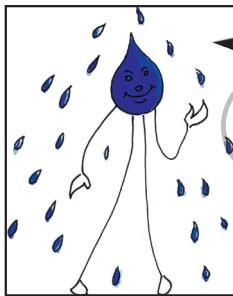
What happened to the water in the bag? What do you see on the upper part of the bag?



Know this

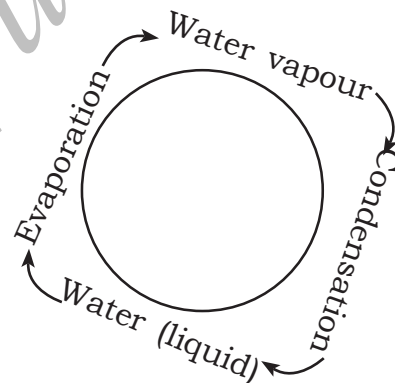
Due to the heat of the sun, water gets evaporated and rises up. Due to the cool air, water vapour turns into drops of water. This process of changing water vapour into liquid state is called **condensation**.





All right...with the help of the experiment that you have observed, fill in the blanks given below. You can use the clues given.

evaporated,
sun, air, droplets, cloud,
cool, large, earth,
rain.

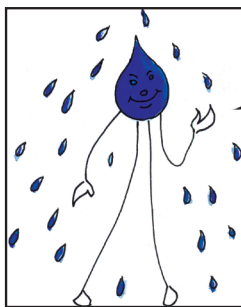


Water in the water bodies, soil, plant and animals gets _____ due to the heat of the _____. The evaporated form of water enters the _____ and rises up. It gets condensed by cool air, turns into _____ of water. The droplets of water form _____. When the clouds become _____ due to cool air small droplets of water together become large _____ droplets and come down to the _____ in the form of _____. This is called water cycle.

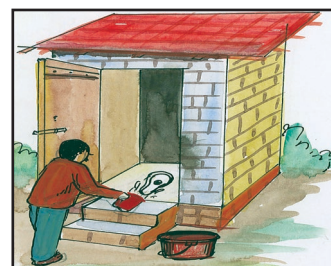


Know this

When the rain drops become too cold, they fall on the earth in the form of small pieces of ice. These are hailstones.



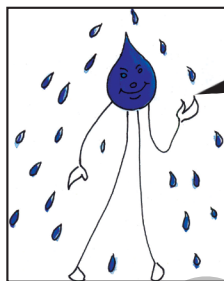
All right...You already know how we use the available water on the earth for our daily activities. Look at the picture and tell.





Know this

Water is not only used for the daily activities of living beings, but also it is very essential for agriculture, industries, water transportation, construction of buildings and generation of hydro-electricity.



As shown in the picture how much of water is used by you and your family members? Measure the water used by you and your family members with the vessels (bucket, mug, tumbler, pot) used daily at home. Write the measurement in the table given below.

Activities	Water used by me	Water used by others in the family	Total
Washing face	2 mugs		
Washing hands and legs			

Water is precious; use it carefully.

Hm, Child...you already know the sources of water which we use for all these needs. Make a list of these sources of water.

All right, name the sources of water for your locality.

Look at this picture and know the amount of water available on the earth.

fresh water

sea water

47

Total, amount of water available on the earth.

Salt water or
Sea water (97.2%).
It cannot be used.

Sweet water

Ice (2%)

This is solid form of
water. It cannot be
used for daily activities.

Water

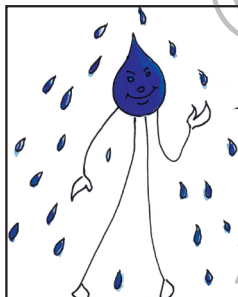
(less than 1%)
water suitable
for use.



Know this

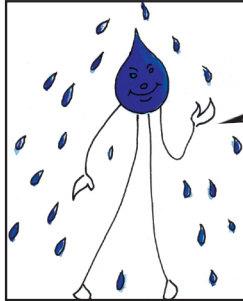
Only this much of water is available for you.

Imagine that there are only 100 spoons of water on the earth. More than 97 spoons of water is salty. 2 spoons of water is in the form of ice. Less than 1 spoon of water is available for our daily activities.

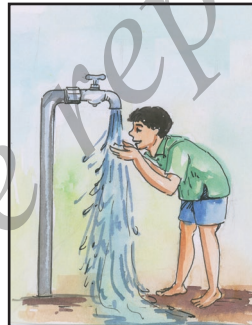


Are you using
water more than your
requirement? For which
activities do you use
water unnecessarily.
Write here.





Observe the pictures given below.
What is happening here?
Write it in the space given below.







How is water wasted in your surroundings everyday? Write here.

Children... What would happen if there is no water at all?

How will you prevent wasting water in your school and house? Write two steps that you would take to stop wasting water.


Pictures showing some methods of saving water are given on the next page. Write those methods in the space provided.

50

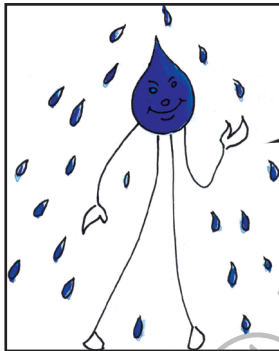


Look there,
the water is
being wasted
isn't it?





Drop of water...
This water is already
used, how do we use it
once again?



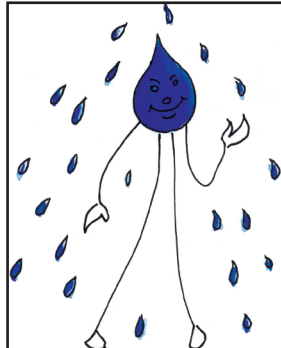
For what purposes can
we use the water that is
already used once?
Think and write.



Know this

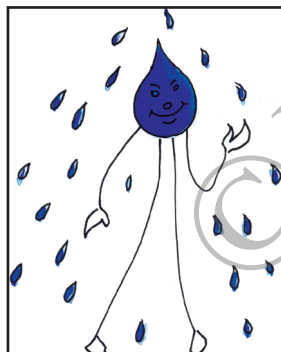
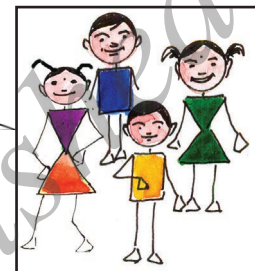
The water that is used for washing utensils, clothes, and vegetables can be used again for watering plants. This is called re-cycling of water. By re-cycling of water we can save water.





Children, we can store the rain water also. Stored water can be used for certain activities.

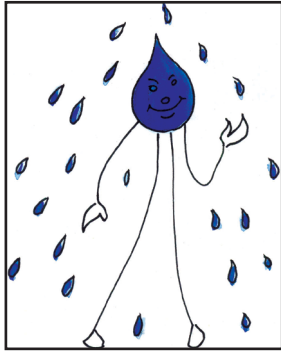
Yes, true.



For which activities can we use the stored rain water? Know and write here.



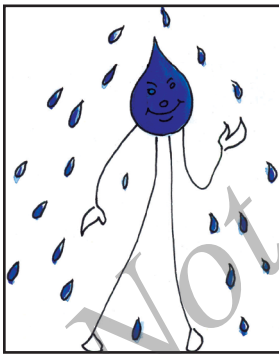
Learn to collect and use the rain water for daily activities.



If there is a rain water harvesting centre in your locality, visit it. If not, know from your elders about it. Collect information about it and write.



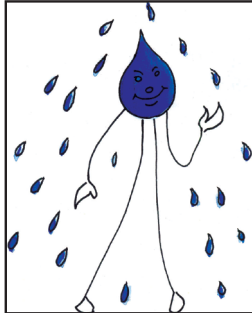
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Children... try to enact a short play which gives a message of the conservation of water with the help of elders and friends.

All right drop of water, we will try.





Children... today you have learnt about the use of water in a limited way and the conservation of water. So I bid you good bye.

OK, drop of water.



Do you know this?

- India has the richest water resource in the world.
- The major portion of the fresh water available on the earth is ice.
- Water in the air is in the vapour form.
- Fish are reared to purify the water of reservoirs.
- Water maintains the shapes of the body of plants and animals.
- There is about 65% of water in the body of human beings. In other living beings the water is 40% to 90%. In leaves water is more than 80%.
- We should drink at least 2 liters of water everyday.
- Mawsynram in Assam receives the highest rainfall in India.
- Agumbe receives the highest rain fall in Karnataka.

LESSON – 7

WATER POLLUTION - CONSERVATION

After studying this lesson you,

- *know the reasons of water pollution and its evil effects.*
- *make a list of diseases that spread through water.*
- *know the reasons for dehydration and preparation of Oral Rehydration Solution.*



Here are two glasses of water.

Which glass of water will you drink? Why?

You know that we use water from different sources such as well, pond, river etc., for different activities.

From where do your elders bring water for cooking and drinking?

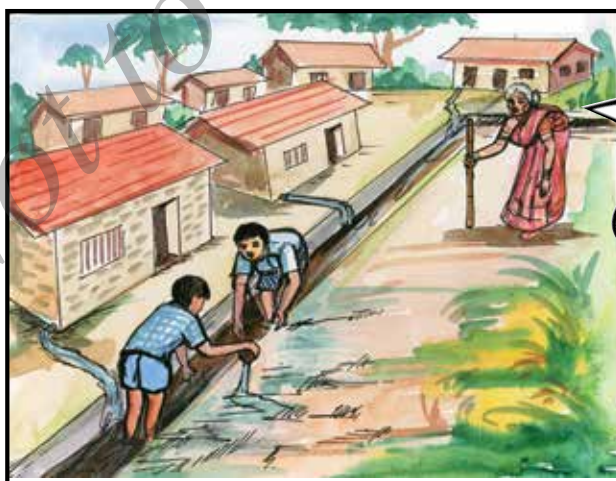


Know this

If the water is not pure and not fit for drinking, it means that water is polluted. The water may contain soil particles, dirt and small insects that may be visible or not visible to our naked eyes. Dirt that comes from washing of utensils and clothes, pesticides and fertilizers, industrial wastes make water polluted. Then it becomes unfit for drinking. This is called **water pollution**.

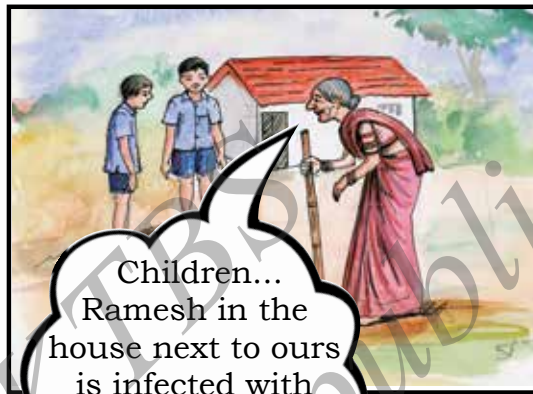
Find out the sources of water in your locality. If they are polluted, discuss the causes for such a pollution with elders or teachers. Write in the table given below.

Source of water	Polluted / not polluted	If polluted, reasons for pollution



Children...
don't play
with the
drain
water.

Why did grandmother tell you not to play with the drain water?



How could Ramesh be infected with cholera? Think and write.

Ask your teachers and elders about other diseases which are caused by polluted water and write here.

Visit the Primary Health Centre of your locality. Discuss with the doctor and get more information about the diseases spread by water.

**Know this**

*Diseases like cholera are spread through water. If not treated properly in time, it can lead to death. In the case of vomiting and diarrhoea, the body loses the water content and the patient becomes tired. This is called dehydration. To avoid dehydration, a mixture of salt, sugar, lemon juice, boiled and cooled water should be given to the patient. This is called **rehydration**.*

Discuss with doctors, elders and teachers the first aid treatment that should be given to the patients suffering from diseases that spread through water.

O.R.S. (Oral Rehydration Solution) packets are available in hospitals and medical stores for rehydration.

Ask your teacher about O.R.S.

Know the benefits of drinking O.R.S. and make a list of them.

With the help of doctors, elders or teachers learn how to prepare O.R.S. using salt, sugar and lemon juice.

Learn how to use O.R.S.

It is better to drink pure and clean water than to drink polluted water, get infected with diseases, get medicated and cured later. So take care to avoid polluted water.

Learn from elders how to purify the polluted water and write here.

Visit the factories of your locality or nearby places. What do they do with the water that is already used there? Observe and write.

You already know why the sources of water are polluted in your locality. Think and write here the steps that can be taken to prevent these sources of water from pollution.

What steps will you take to prevent water from polluting in your school and at home? Think and write here.

Water is very precious. You know that the quantity of water that is available for our use is very less. Do not waste it and save it from getting polluted.

Do you know this?

- Most of the rivers in our state and country are polluted.
- If we drink water containing fluorine, mercury, arsenic and lead, it may cause deadly diseases.
- In our state, we have reports about the death of the aquatic animals, mainly fish, due to contamination of water.
- 'Pollution Control Board' is a Government organization established to protect the quality of water.
- The chemical, **chlorine** is added to drinking water to purify it from germs and then is supplied to the houses in towns and cities.
- The manure pits and soak pits should be at least 10 meters away from the sources of water such as wells, ponds etc. Otherwise the water contaminating germs collected in these pits may be added to the sources of water and pollute them.
- When we boil water, all the bacteria will die. It is good for health to boil and cool the water before drinking.
- Desalting is the process of reducing the salt content of the sea water and use it for agriculture and house hold activities. This is very costly.
- In cities, it has been made compulsory to collect rain water that falls on the roof-tops of the buildings to prevent scarcity of water.
- Purifying and reusing of water once used in the industrial sector is in practice to minimise the scarcity of water.

LESSON – 8

FOOD - HEALTH

After studying this lesson you,

- explain balanced diet.
- classify different nutrients.
- practise the methods of preserving food items.
- discuss the food habits of animals and birds and know how their beaks, teeth and other parts are modified to suit their food habits.

It was Deepa's birthday. She likes carrot halwa very much. Her mother had prepared carrot halwa for her birthday. She ate well and slept well. She had a dream. What did she dream of ? Carrot!

Carrot : Deepa, I am a carrot. You had enough of my halwa. Now, let me know what you eat regularly.

Deepa : I eat well, different food items everyday. I know how and from which food items are prepared.

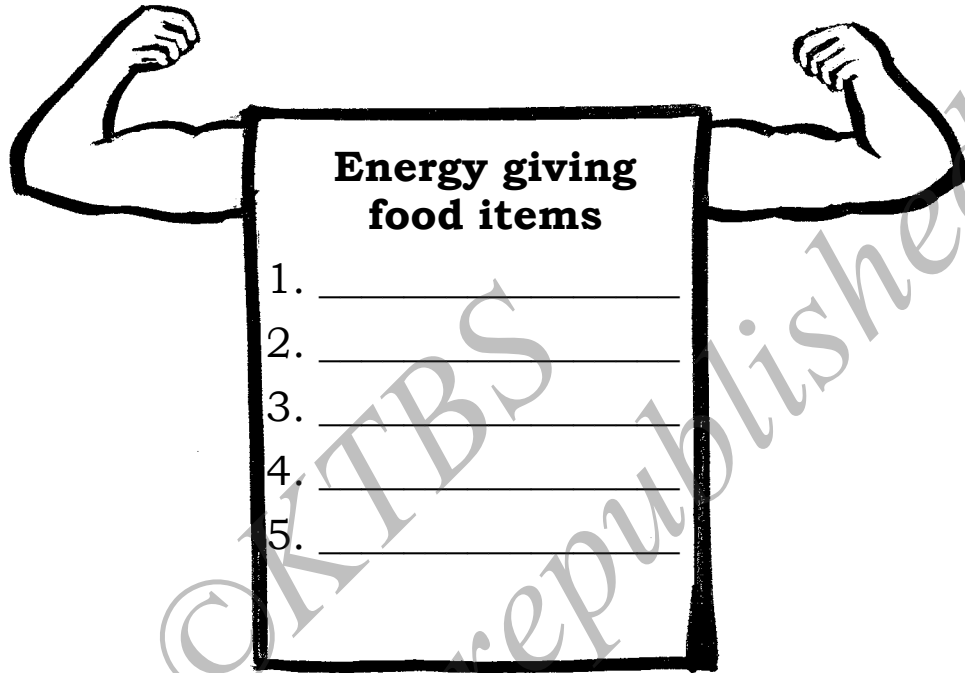


Carrot : All right, make a list of all the food items that you know and eat.

Activity : Like Deepa, you also prepare a list of food items you know.

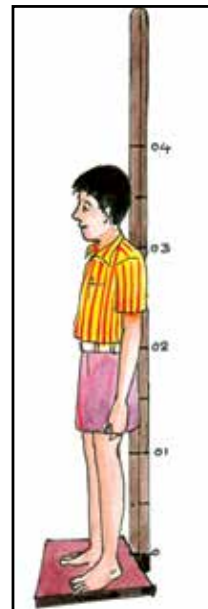
_____, _____, _____, _____,
 _____, _____, _____, _____,
 _____, _____, _____, _____.

Carrot : Classify the food items from your list and write them in the space given below.



Food items which help us to grow.

1. _____
2. _____
3. _____
4. _____
5. _____



Food items which give protection to the body.

1. _____
2. _____
3. _____
4. _____
5. _____

Carrot : Deepa, do you know the food you eat contains the nutrients that give energy, help to grow and protect health?

Deepa : No! I don't know.

Carrot : These nutrients are: 1) carbohydrates 2) proteins 3) lipids or fat 4) mineral salts 5) vitamins.

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In which food items are these nutrients found?
Now know it from my friends.

I am ragi. I have carbohydrates as the main nutrient. I give energy to the body.

Pictures of my friends who have a lot of carbohydrates are given here. Identity and name them.

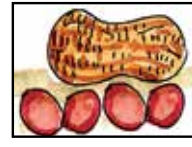


Due to the shortage of carbohydrates one has to suffer from weakness.



Deepa, look here, I am cow beans. I have a lot of protein. I help in the growth of your body.

See my other friends. Identify them and write their names.



_____, _____, _____, _____, _____.

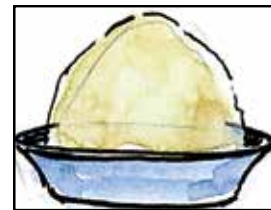
Apart from grains, proteins are present in some other food items also. Observe the pictures and write their names.



_____, _____, _____, _____.







Carrot : Deepa, look here, the butter. It has high fat content. Groundnut oil, coconut oil, sesame oil, ghee also have high fat content.



- Deepa : What is the use of fat?
- Carrot : Even if we use a little fat, it's enough. Fat gives more energy than carbohydrates.
- Deepa : Does it?
- Carrot : Do you eat different vegetables, fruits and salt?
- Deepa : Yes, I do. But I don't like greens.
- Carrot : Look Deepa, you have to eat all vegetables, greens and fruits. As they are rich in mineral salts and vitamins, they protect you from diseases and keep you healthy.



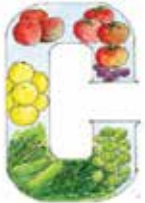

Deepa : Yes, I know that there are 4 important vitamins.

Carrot : They are called vitamin A, B, C and D. Look at the table given below.

Vitamins	Food items	Use
	green and yellow vegetables, fruits, leafy vegetables, carrot, butter, ghee, milk and egg.	preserves good eye sight, skin and teeth.
	wheat, ragi, black gram, greens, germinated grains.	protects skin, heart and digestive system.
	orange, lemon, tomato, raw vegetables, gooseberry, apple, pineapple, germinated grains.	protects teeth and gums
	cod liver oil, when sun rays fall on the skin vitamin D is produced.	protects bones and teeth

Deepa : What happens if we don't eat them?

Corrot : Look at this chart and tell.

Vitamins	Diseases caused due to their deficiency
	Night blindness (one cannot see in dim light).
	Beri beri (accumulation of water in legs, muscle pain, respiration and heart problems).
	Scurvy (soft and bleeding gums, swollen legs).
	Rickets (disorder of bones, bowed legs).

Corrot : Do you like to be a patient always?

Deepa : No, what should I eat to be healthy?

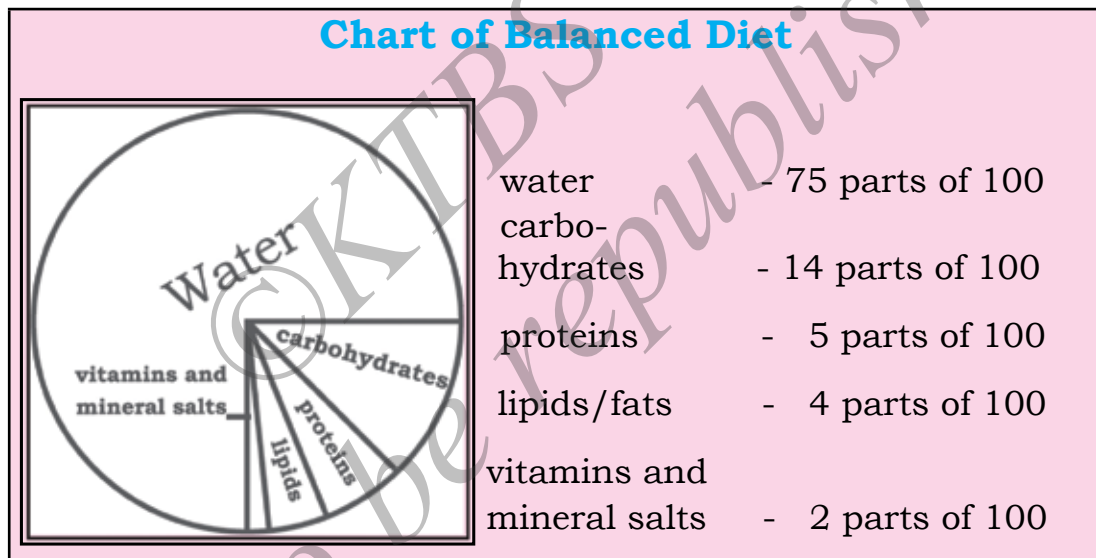
Carrot : Besides all the food items mentioned, beans, radish, leafy vegetables, fruits with edible skin (apple and guava) and cereals. They are rich in fibres and help in excretion.

Deepa : Is it possible to eat all these food items at a time?

Carrot : It is not so... You should eat all these food items daily in the right proportion. It provides the required amount of nutrients to the body. The food which provides all the nutrients to our body in a required proportion is called **balanced diet**. Besides you should drink 4 to 5 glasses of water daily.

Deepa : How should the balanced diet be?

Carrot : Look at this chart and know about it.



Sing and enjoy

*Carbohydrates in cereals and sugarcane,
Fats in oil and ghee.*

Proteins in grains and milk,

Vitamins in vegetables and fruits.

Every food has minerals

To protect our body from diseases

We require all these daily

For they help us grow and be healthy.

Play the game.

Take empty chalk boxes. Decorate them with colour papers and write the names of nutrients on them.

Take a drawing sheet, make circles on it and cut them in circular shapes. Write the name of food items or paste the pictures of food items.

With the help of the teacher put the circles having the name or pictures of food items in the respective boxes with the names of nutrients on them.

Call each one of your friends, ask them to take each circle shaped paper, read the name of food items and put it outside the box.

After this mix up of all the circles of paper, keep them away from the boxes. Again each of your friends should come and put the circle of papers in the respective nutrient box.

At the end, count and identify which box contains more number of the circle shaped papers.

Deepa : Animals and birds also need food as we do, don't they?

Carrot : Yes, they also need food like us.

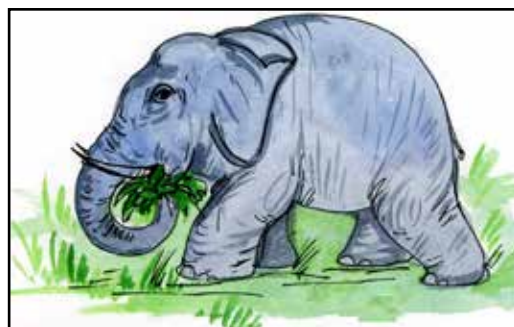
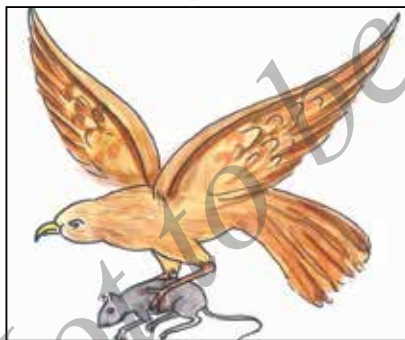
Write the food of animals given in the table.

Sl. No.	Name of the Animal	Food the animal eats
1.	tiger	
2.	crane	
3.	deer	
4.	elephant	
5.	kite	
6.	butterfly	
7.	mosquito	
8.	cow	
9.	dog	
10.	rat	

Deepa : How do animals eat food?

Carrot: See how animals eat food with the help of their beak, teeth and proboscis.

Look at the picture and fill in the blanks.



- Tiger tears the flesh with the help of its _____ .
- Kite has _____ legs to hold its food.
- Butterfly has proboscis to suck _____ of the flower.
- The crane has a beak to hold its food _____ .
- Elephant eats grass with the help of its _____ .

Write how the beak, legs and teeth help the animals to eat their food.

Sl.No.	Name of Animals	Food	Helping organ	How it helps
1.				
2.				
3.				
4.				
5.				

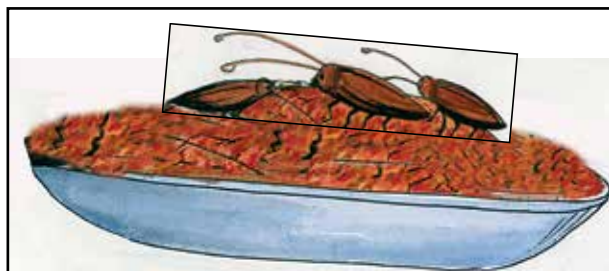
Deepa: Oh! It's wonderful the way animals eat food. Wait, I feel hungry once again. I'll come back after eating halwa.

Deepa enters the kitchen. She sees the halwa being eaten by cockroaches. She screams.

Carrot: Why Deepa, what happened?

Deepa: Cockroaches are eating halwa. Please drive them away.

I have to eat the halwa.



- Carrot : No Deepa, Don't eat that halva. Once the animals touch the food item, it becomes contaminated. We shouldn't eat such food.
- Deepa : What will happen if we eat?
- Carrot : Read this news item.

Children fall ill by eating contaminated food.

Children fall ill by eating the food exposed in a fair. It is confirmed that contaminated food is the cause. The children who ate the food which was contaminated by flies and cockroaches are suffering from vomiting and dysentery. They are admitted to a hospital. Four of them whose condition is very serious are shifted to the city hospital for further treatment.

- Deepa : Poor Children !
- Carrot : Come, I'll take you to a nearby fair. Look at the shops where eatables are kept uncovered.
- Deepa : Those house flies are sitting on the rubbish. They fly and sit on the sweets also.
- Carrot : If we eat such food, we get diseases like cholera. So we should always cover the food with plates to avoid insects sitting on them. The vessels in which we store water for cooking and drinking should be covered. Care should be taken to avoid pollution of water. Hands should be washed before eating food. Understand?
- Deepa : Yes, I understand.
- Carrot : We shouldn't eat stale food. We should wash the vegetables and raw fruits before eating them. Fruits should be cut to pieces just before eating. Vegetables should not be



over cooked. Over cooking destroys the nutrients present in them. Food, if boiled well, will be soft and it digests easily. The germs present in them will also be killed. Eat hot food. Don't eat oily, fried and too spicy food.

Deepa : Do you know, I am following all these tips?

Carrot : Then throw out the halwa eaten by cockroaches.

Deepa : OK.

Deepa threw the halwa, sobbing. Deepa's mother woke up Deepa, who was sobbing in her dream. Deepa woke up suddenly and asked her mother why she hadn't covered the halwa with a lid. Mother laughed, and asked Deepa whether she had a dream.

How do you preserve food at home? Explain.

Fill in the blanks.

1. The nutrients in food are _____, _____, _____ and _____.
2. The nutrient present in grains is _____.
3. We should drink a minimum of _____ litres of water every day.
4. Night blindness is caused due to the deficiency of _____ vitamin.
5. Orange is rich in vitamin _____.

Write the reasons for the following statements.

1. We should not eat contaminated food.

2. We should eat balanced food.

3. We should cover the prepared food items properly.

4. We should not eat food and cut fruits, kept open and sold on the road side.

Match the vitamins and their uses.

Vitamin A	Protects bones and teeth.
Vitamin B	Preserves eye sight and skin.
Vitamin C	Protects heart and digestive system.
Vitamin D	Protects teeth and gums.

Do you know this?

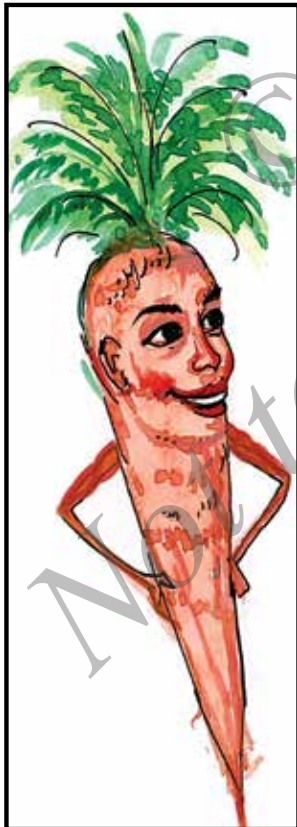
- The sun rays help to produce vitamin **D** in our body.
- Goitre is caused due to the deficiency of iodine.
- Major food grains that we use are rice, wheat, jowar and ragi.
- The food will be spoiled or become stale when germs enter it. When we eat such food, it causes diseases of the abdomen and the intestine. Sometimes the diseases will be severe and cause death.
- Food is preserved at home by drying, salting, fuming, cooling, boiling etc. In the markets the food items are purified and preserved by different methods and then they are sold. **For example**, cool drinks, bread, fruit juice and jam.

LESSON – 9

FOOD HABIT

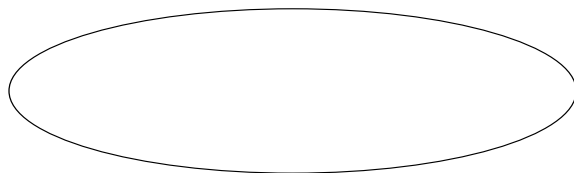
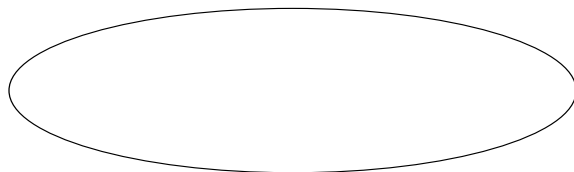
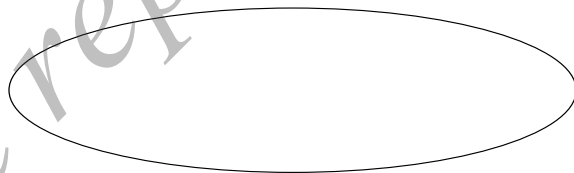
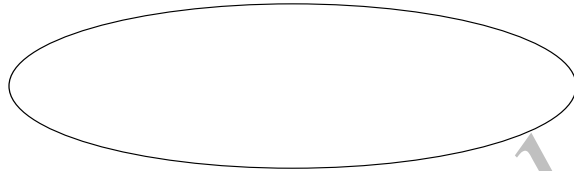
After studying this lesson you,

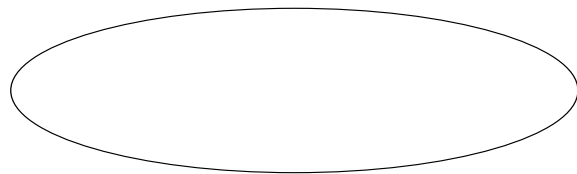
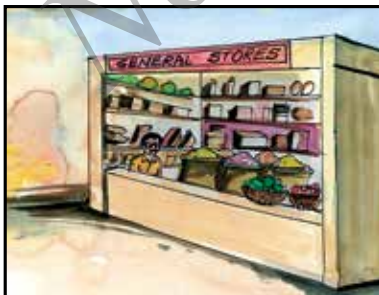
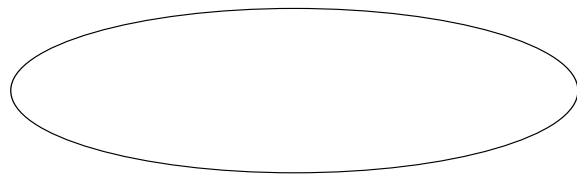
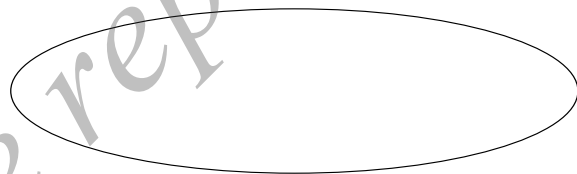
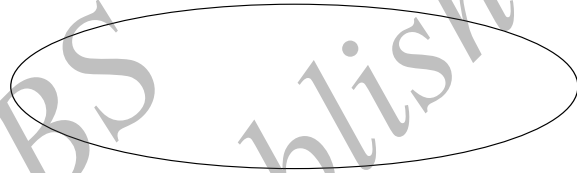
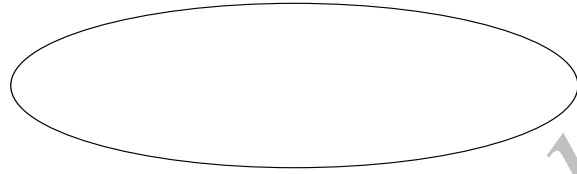
- explain from where and how we get food.
- identify the circumstances of mass feeding. Practise the orderliness that is followed during mass meals.
- appreciate the food and cultural diversity.
- know the food habits and cultural diversity of your district and of neighbouring districts.



I hope you have understood what I discussed with Deepa about food. Have you ever thought where and how we get food from?

Observe the pictures given on the next two pages. Stages of production of food are shown here. Arrange them in the proper order. Write the serial number to show the correct order. Write a sentence for each picture in the space given.





Make a list of 10 food items that are used in your house. Write from where you get them.

Sl. No.	Food Item	Place where it is available
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Write here the type of food items prepared daily and on festivals in your house.

Food prepared daily	Food prepared during festivals

Do your parents prepare the same food items for all festivals? If not, write the name of special food items prepared on different festivals.

Sl.No.	Name of the festivals	Food items prepared
1.		
2.		
3.		
4.		
5.		

Compare your list with that of your friends'.

Compare the special dishes prepared in your house and your friends' houses. Write down your observation here.



Have you eaten food in a fair, in a village festival, an urs etc? Come, let us go to our village fair. Look there, people are moving together in a procession. The beats of the drums are getting louder. Tiger - masked dancers and the keelu kudure are giving great entertainment to the people gathered there. People of the village have prepared food for all those who presented cultural items in the fair.



There is mass feeding. People co-operated for this arrangement. They have given money, grains, fire wood, etc. They together have prepared the food. There are different kinds of sweets. Come, let's have food. Some volunteers are removing the leaves after the meal



and cleaning up the place of eating. Let us join them. The people who participated in the fair are going home happily. They have the satisfaction of sharing work and eating together.

You might have participated in mass feeding. What are those occasions? Explain a mass feeding that you have participated in.



Write your experience of a fair, that you have participated in.

Here is a list of precautions that has to be followed during mass feeding.



Know this

- The materials, the vessels and water used to prepare food should be clean.
- The persons who cook and serve food should be clean. Their nails should be trimmed and hair should be covered with cloth.
- The place of eating food should be free from dust, germs and insects.
- Pure water should be provided for drinking.
- The place where the food is cooked should be clean and free from insects and animals.
- The place where food is cooked should have proper ventilation and light.

The midday meals of your school is an instance of mass feeding. Write the precautions to be followed while eating midday meals.

Do you know that the people of different regions have different food habits? For example, in northern districts like Belagavi and Bidar most of the food is prepared from jowar. Similarly in coastal districts like Mangaluru and Udupi cooking fish is special. In the districts of the plain region like Mandya and Mysuru, ragi and rice are mainly used as staple food.



Know this

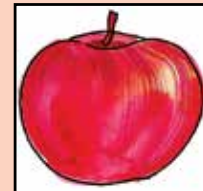
Food habit depends on the food items available in that place. People follow different food habits according to the customs of their locality or family.

Write the special food used in your district.

Have you observed the food habits in other districts? Have you tasted that food? Share your experiences here.

Do you know this?

- A Python can survive without any food for a year.
- The major part of the food you eat is used for keeping your body warm.
- It is better to eat fruits before meals. The nutrients present in the fruits will get digested well and enter the blood stream.
- It is better to eat raw vegetables or half cooked vegetables. If the vegetables are over cooked, the nutrients present in them will be destroyed.
- Radish was grown in Egypt in 278 B.C. It is surprising that the colour of the radish was black.
- We should eat food in a balanced way. Over-eating causes ill health.
- Vitamin **B** is abundant in the outer layer of the rice. If rice is polished more it destroys vitamin **B**.
- The nutrients that are present in an apple are equal to the nutrients present in two bananas or five gooseberries.



LESSON – 10

SHELTER - ITS VARIETY

After studying this lesson you,

- recognize the changes in the construction of houses from time to time.
- identify the differences between the houses in the urban and the rural areas.
- know about the multi-storeyed buildings and slums of urban areas.
- find out the variety in habitats and shelters of animals.
- identify the variety in the nests of birds and dwellings of animals and in the materials needed to build them.

You know about the need of a house, the materials needed for its construction and the way of construction. Let us know about the houses constructed in different parts of our state.

Education department had organized a camp at Dharwad. Children from different parts of the state attended it. They discussed the houses of their region. Come, let's go there. The children are sitting there. They are speaking one after the other. Let's also sit and listen to them.



I am Sangeetha. I have come from Jevargi taluk, Kalaburagi District. It's a hot place with scanty rainfall. People build the houses using Shahabad stones or slabs of stone. The roof is constructed with wooden planks. Over it they put mud. Some people place stone slabs on it.



People of Jevargi use stones to build the houses. Why? Discuss with your friends and teacher and write.

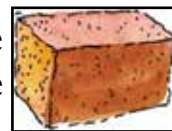
They use mud for roofing. Why? Discuss with your friends and teachers and write.



I'm John, I'm from Koppa of Chikkamagaluru district. Rainfall is heavy in our place. People build the walls with bricks or mud. The roof is thatched with hay (dry grass). The roof is sloppy. Every year they



cover it with fresh hay. Once in 4 to 5 years they change the entire hay roof. Some people use hard red bricks to build walls and make the sloppy roof with tiles.



In places like Chikkamagaluru, where there is heavy rain fall, the roofs of the houses are sloppy. Why?

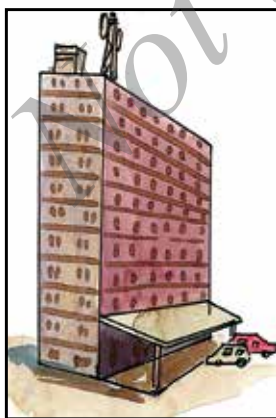


Think and write.

What is the benefit of using hay for the roof? Discuss with your friends and write the answer.



I'm Haseena from Bengaluru. Now-a-days people are constructing houses one above the other. These are called multi-storeyed buildings. Burnt bricks or bricks made of cement and steel rods are used for the construction. Flooring is done with colourful tiles or marble. There is a facility of staircases along with lifts. To construct such multi-storeyed buildings huge machines such as crane and mixer are needed.



What are the advantages of multi-storeyed buildings? Think and write.

What are the disadvantages of multi-storeyed buildings?
Discuss in groups and write your opinion.



I'm Vivek. I am also from Bengaluru. My house is near a slum. The houses there, are very small. They build the house with bricks, dry leaves and tin sheets.

The roof is either thatched with dry leaves or covered with tin sheets. A few people put tiled roofs. As there is no drainage, the waste water from washing the clothes, bathing etc., stagnates in front of the houses. Therefore mosquito threat is common. In a small area, hundreds of houses are built close to one another. Therefore there is no proper ventilation and lighting facility. And also the people who stay there, do not keep their surroundings clean. They dump the waste materials every where and dunghills have been created there. The housefly and other insects sit on the dunghills and spread diseases.

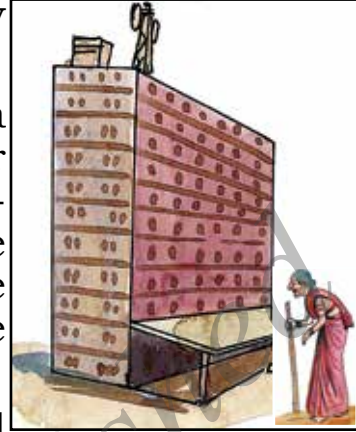


Have you seen such slums? What changes can we bring in the slums? Think and write four changes.

Did you know that the houses are built depending on the materials available in that locality and the climatic condition?

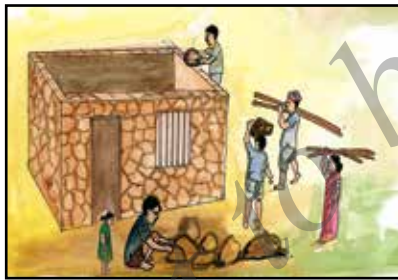
Now let's listen to the story told by Venkajji.

Venkajji lived in a village for a long time and then came to her grandson's house which is in a multi-storeyed building in Bengaluru. She sat on the sofa and went back to the memories of her childhood days.



I was a small girl then. I lived with my three sisters, two brothers and parents in a thatched hut.

Our hut would leak when it rained. During summer the leaves on the thatched roof would dry due to heat, making holes in them. One day our hut caught fire and was burnt down. After that, my parents decided to build a house. My father, taking the help of another person, built the mud walls.



My father brought bamboos from the nearby forest. I, along with my mother, brothers and sisters brought small bamboos. We placed them on the mud walls and spread mud / clay on them. Later we went round the open field and collected cow dung. My mother mixed it with water and plastered the floor and the walls with it. We decorated the front of the house, put rangoli and entered the house.

I grew, and got married. I came to my husband's house. That house was better than ours. The walls were built with burnt bricks and they were white washed. The Mangaluru tiles were used for roofing.



The flooring was done with black stone. The doors were made of wood with beautiful carvings on it. The broad windows allowed light and ventilation into the house. Our neighbours also had constructed good houses similarly, but they used slabs of stone for roofing. Cement flooring had a smooth surface.

I did not have to smear the ground with cow dung or mud. I had to cleanse the floor with water. Venkajji who began to sip coffee, given by her grandson, remembered the house of her daughter. It was a concrete house with marble flooring, coloured walls, a small garden around the house and a compound. Her house with all these facilities was really beautiful.



Venkkajji is now looking at the apartment of her grandson. 15-20 storeyed building with more than 500 houses. There is a lift service to reach houses on the top floors. Certain machines were used to construct these houses. There are three bed rooms, dining room, and a living room of this house. Every thing is really fine. Still houses are constructed like match boxes arranged closely. There is some problem of ventilation and light. Wardrobes are constructed to arrange the household articles in an orderly fashion. Doors and windows are not of wood. They are made of steel or plastic.

Venkkajji was surprised to observe the changes in the construction of houses from the huts to multi-storeyed buildings.

What have you learnt from this story? Write.

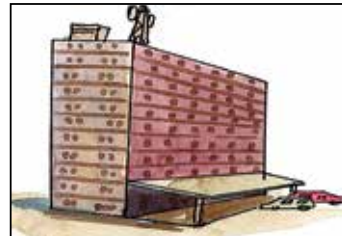
Name the five types of houses that appear in the story of Venkkajji.

_____, _____, _____, _____, _____.

What changes have taken place in your locality in the construction of houses? Ask elders and write.

Materials used for the purpose of construction are changing. Write the materials used for the construction of buildings from a hut to a multi-storeyed building.





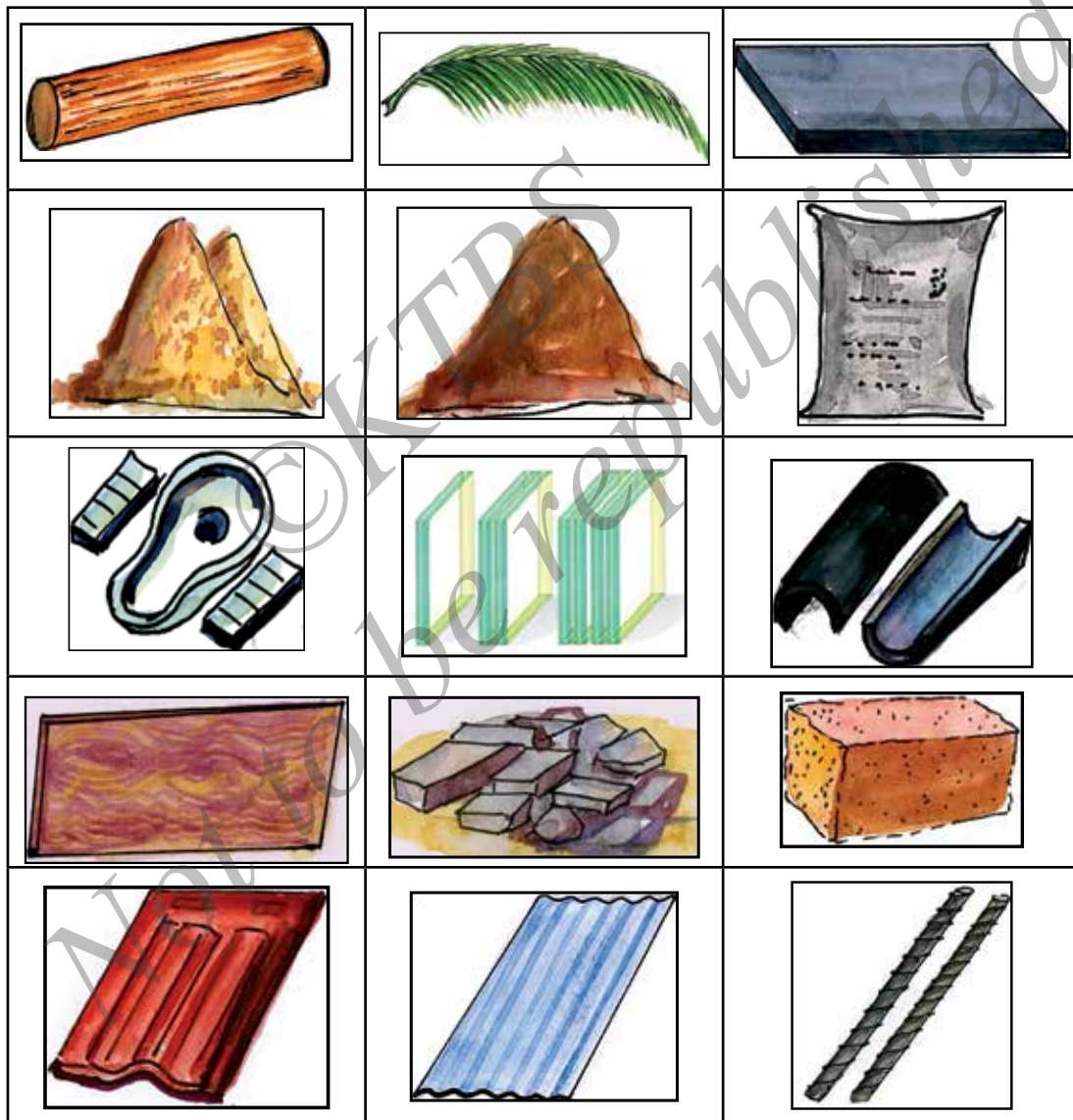
Know the price and write.

1. one bag of cement
2. one brick
3. one lorry load of sand
4. one ton of steel / iron

Now	One year ago

Know the type of wood used for the construction of a house.

Here are the pictures of materials that are essential for the construction of a house. Put a (✓) mark to the material that is used for the construction of your house.



There is a change in the construction of houses. Is there any change in the shelters of the animals and birds? Observe.

Haven't you observed the living places of certain animals and birds? Look at the shelters of the animals and birds and fill in the table given below.

Name of the Animals	Their shelter	Materials used for construction of the shelters built by the animals
1. sparrow 2. white ant 3. weaver bird 4. parrot 5. tiger 6. fish 7. woodpecker 8. crow 9. frog 10. rat 11. honey bee 12. snake		



There is a variety in the shelter of the animals also. They use different materials to build their shelters, don't they?

Do it yourself

Try to build the shelters of animals with paper, card board, grass, dry leaves etc. Build a house with materials like match box, card board, mud and bricks which are easily available.

Do you know this?

- **Burj Khalipha** in Dubai is the tallest building in the world. Its height is 829.2 meters (2722 feet).
- **Dharavi** of Mumbai is the largest slum in India. More than 10 lakh people live there. It is also called the largest slum area of Asia.
- Now a days some projects have been implemented to construct eco-friendly houses by using the materials in a limited way. People are interested in constructing houses by adapting solar heater to heat water, rain water harvesting and management of garbage in the house itself etc.
- There are records about the anthill which spreads for more than 650 acres. They are called **great nests**. Lakhs of ants live in them.

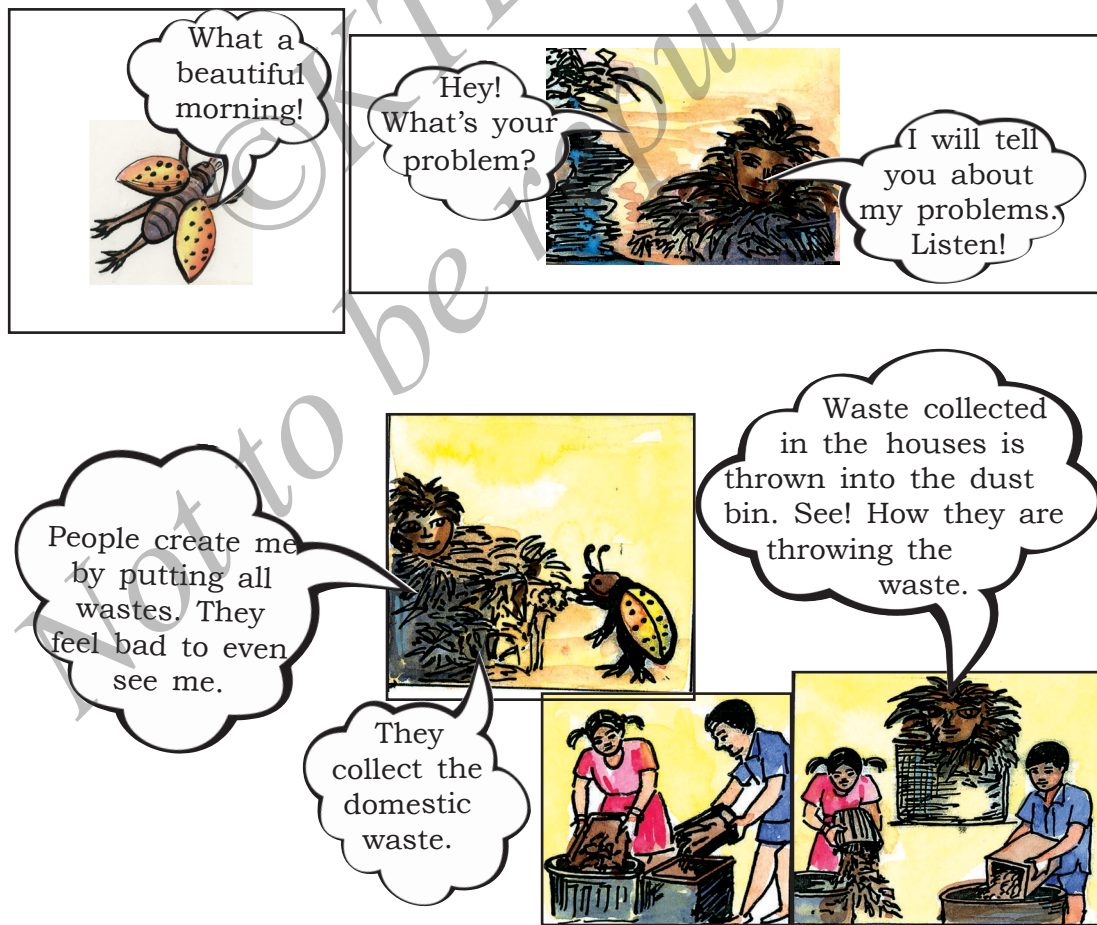
LESSON – 11

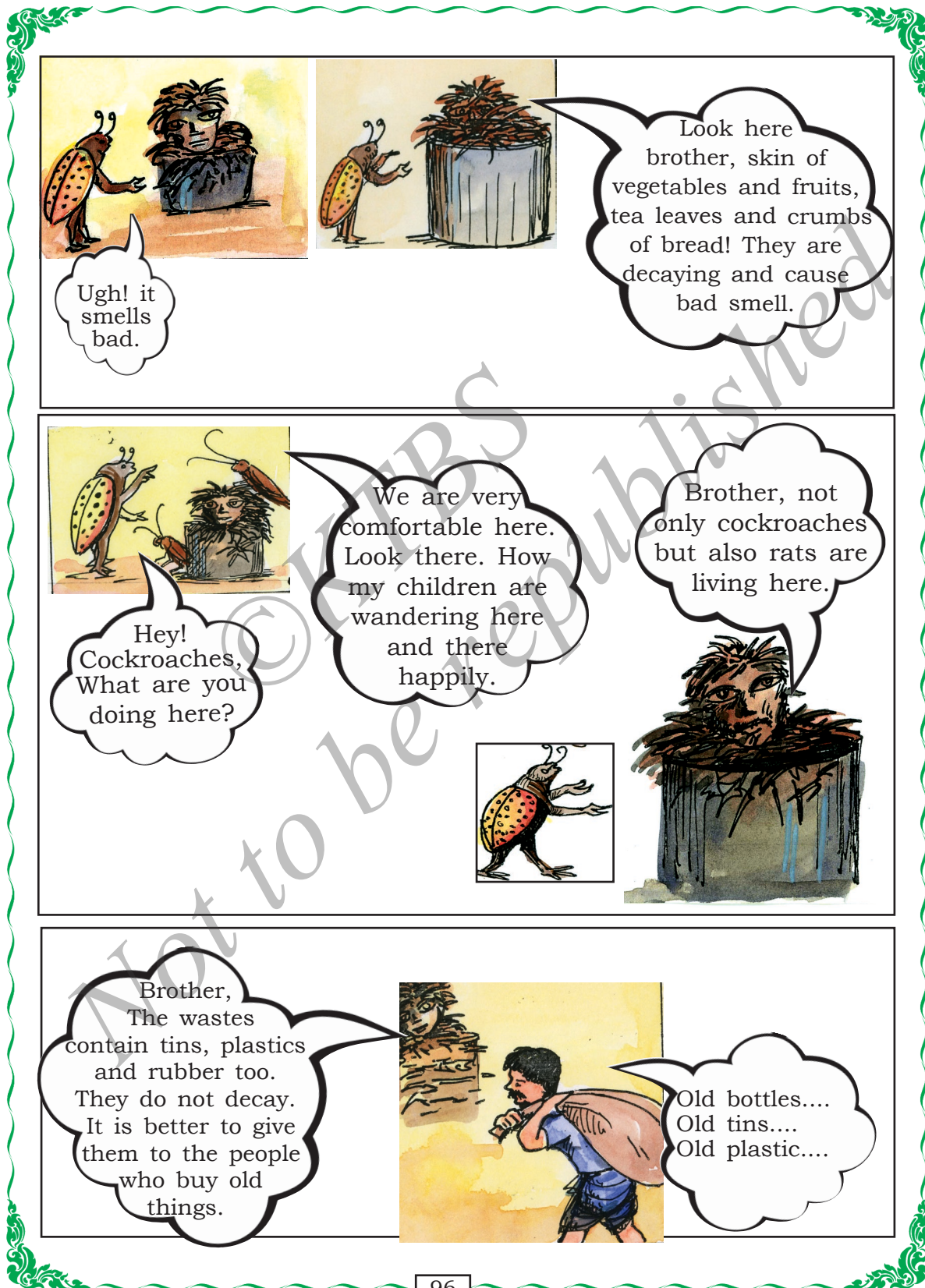
WASTE IS WEALTH

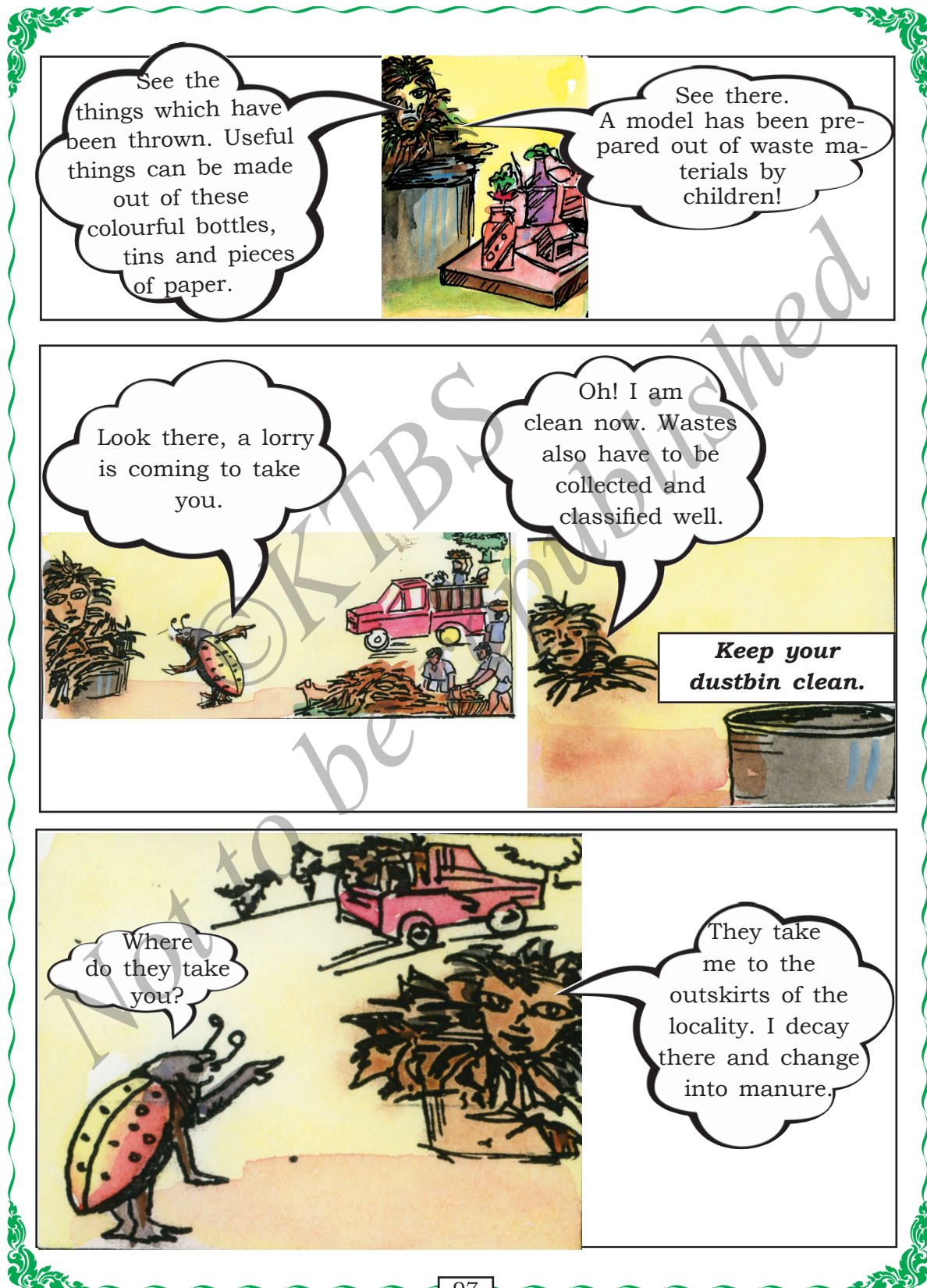
After studying this lesson you,

- distinguish between the rural wastes and urban wastes.
- understand the proper methods of disposal of waste.
- practise the habits of reducing waste.

One beautiful morning, a cricket came flying and sat on the dust bin. The dust bin began to tell about its difficulties to the cricket.







They are municipality workers. They have come with vehicles to collect waste from these dust bins. They remove the wastes from the dust bins and keep the place clean and tidy. They carry the wastes to the outskirts of the locality and dispose them there. See the board with instruction showing the types of wastes to be thrown in the dust bins.



Dry waste



Plastics, glass, pieces of metal, rags and rubber etc.

Give them to rag pickers.

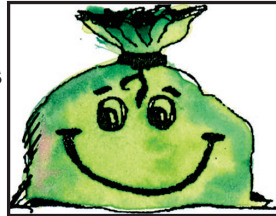
Wet waste



Left over food, kitchen waste, decaying food items, meat, vegetable wastes, dry leaves, pieces of paper etc.

Convert them into manure.

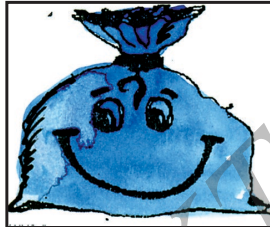
Hazardous
waste



Paints, insecticides, poisonous chemicals, broken tube lights, used batteries, expired medicines etc.

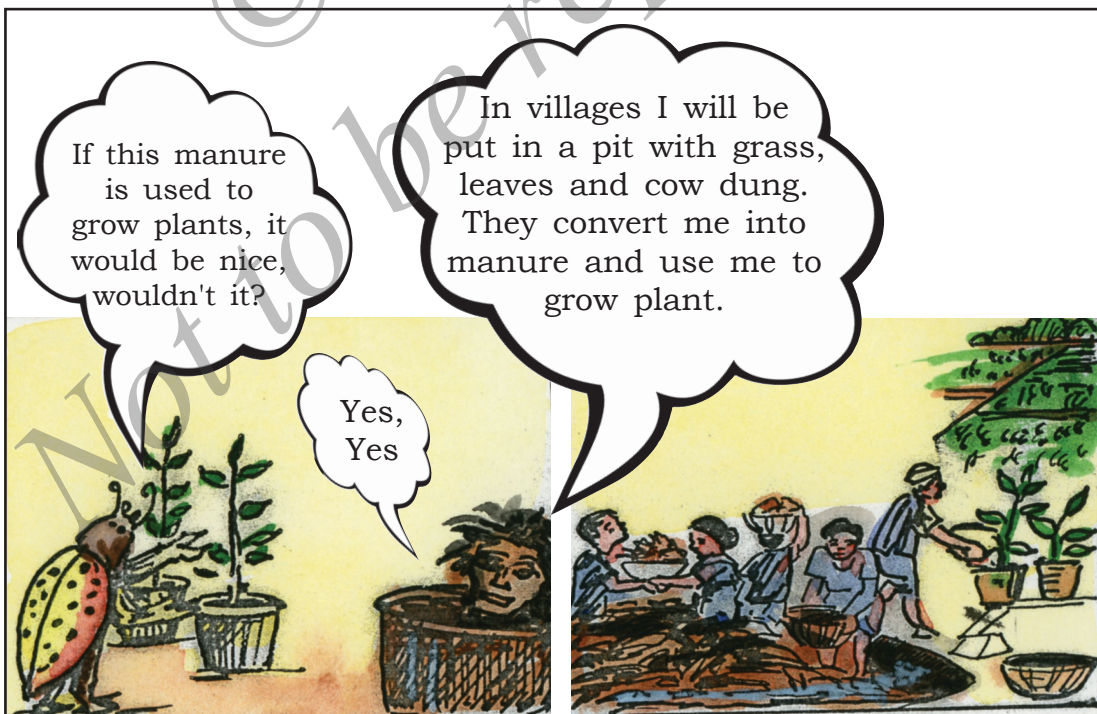
Keep them in bags and put them in the municipality bins for proper disposal.

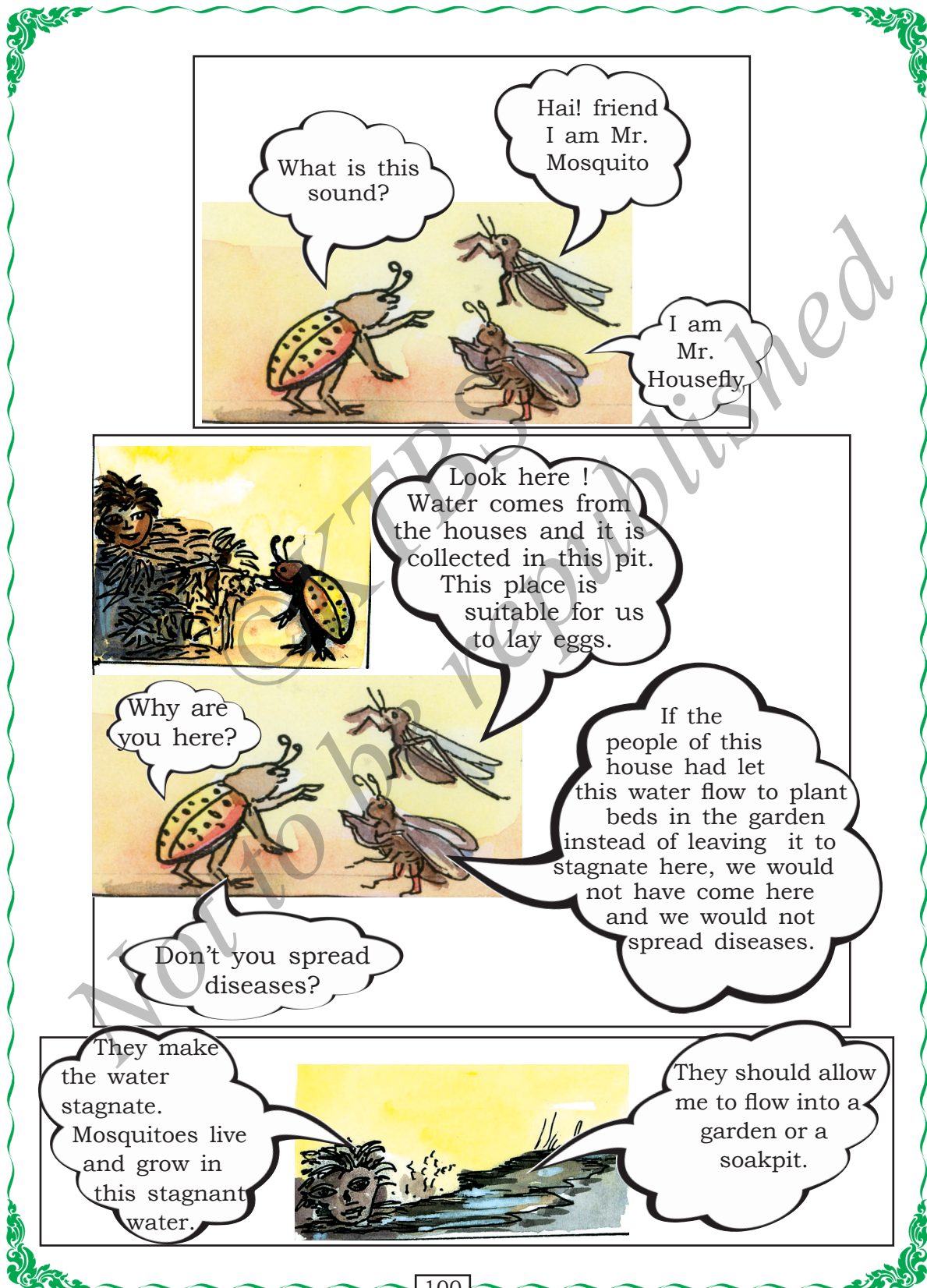
Polluted
waste



Used bandages, infected cotton, drips, syringes and used needles etc.

Keep them in bags and put them in the municipality bins for proper disposal.





The Cricket came flying forward.

Oh ! It is better to get away from this bad smell.

Hey cricket. What are you worried about?

See the heap of wastage every where. How do we dispose them off? I'm worried about it.

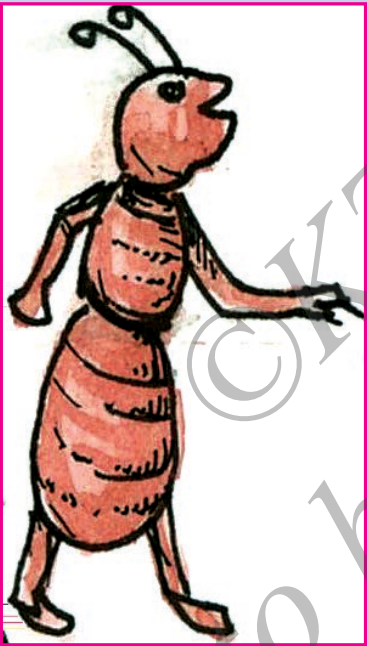



There is no need to use so many plastic bags.



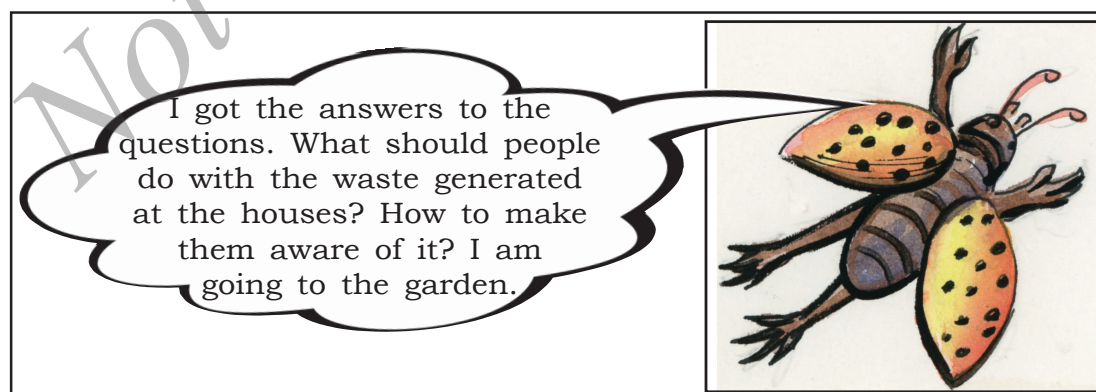






**Know this**

- One should minimize one's requirements. It reduces waste.
- Many used things can be reused. This is reusing.
- Decaying wastes can be converted into compost that can be used to grow plants.
- New things can be prepared from used plastic sheets, glass and paper. This is called recycling.
- Used water can be used to water plants or drained into the soak pit.



Answer these questions.

1. What is waste?

2. Write any five things that you throw as waste.

3. What do you do with the waste generated at your house?

4. What would happen if there is stagnant water in front of your house?

5. How do you dispose of your old books?

6. Collect the address of the department that is responsible for proper disposal of waste in your locality and write it here.

7. Make a list of the uses of waste.

Identify and write which statement is 'right' and which statement is 'wrong'. Correct the statements which are wrong.

1. I throw waste here and there. _____ .
2. I will give the dress that does not fit me, to others. _____ .
3. I collect plastic covers and use it whenever needed. _____ .
4. I collect damaged plastic materials and give them to the people who buy old things. _____ .
5. I throw hazardous waste into the compost pit. _____ .

Write five things which you throw as waste at home. Write the type they belong to. How would you dispose them off. Write them in the table given.

Sl.No.	Types of waste	Type	What do you do?
Example	Vegetable peelings	Wet waste	Compost them
1.			
2.			
3.			
4.			
5.			

Do it yourself.**Which objects decay?**

Take a big bottle. Fill half the bottle with soil. Put leaves, vegetable and fruit peelings, small pieces of paper, plastic, rubber, cotton and small bottles. Put some more soil and sprinkle water on it. Every week observe the bottle and shake things in the bottle. Observe for three to four weeks. After four weeks take out the things from the bottle, spread them on old news paper and observe the things. Which materials decayed? Which materials decayed fast? Which materials decayed slowly? Make a list of them.

1. What did you learn from this activity ?

Do it yourself.

Keep the waste collected in your house for three days. Now classify them as decaying and non-decaying. Observe their size?

2. Write two observations.

3. Prepare compost using separated decaying waste in school and near home.

Do it yourself.

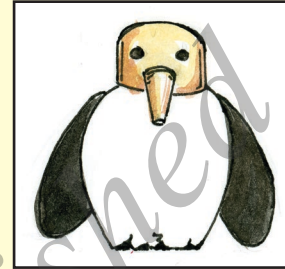
Dig a pit of $\frac{1}{2}$ metre breadth and 1 metre depth in a corner of your school garden with the help of your friends. Collect and put the leaves, grass and pieces of paper in this pit. Sprinkle some water. Then spread some soil on it. Put the waste generated daily in your school in the pit, sprinkle some water and spread some soil. Stir the waste. Compost will be ready in three weeks. Put it to plants in your school garden. Prepare compost near your house also.

4. Encourage your neighbours to dispose of waste in a proper way. Prepare and exhibit posters regarding the proper disposal of waste.

Do it yourself.

Penguin from egg shell

Take an egg and empty it by making a small hole at the top. Now fix the cap of an eye or ear drop bottle. Turn the hole of the egg upside down and fix this cap on the opposite side. Take a card board, cut in the shape of wings and colour them black. Fix them on either side of the egg shell. Put two black dots on either side of the cap with a black pen as eyes of penguin. Your penguin is ready. Use it to decorate your house.



Do it yourself.

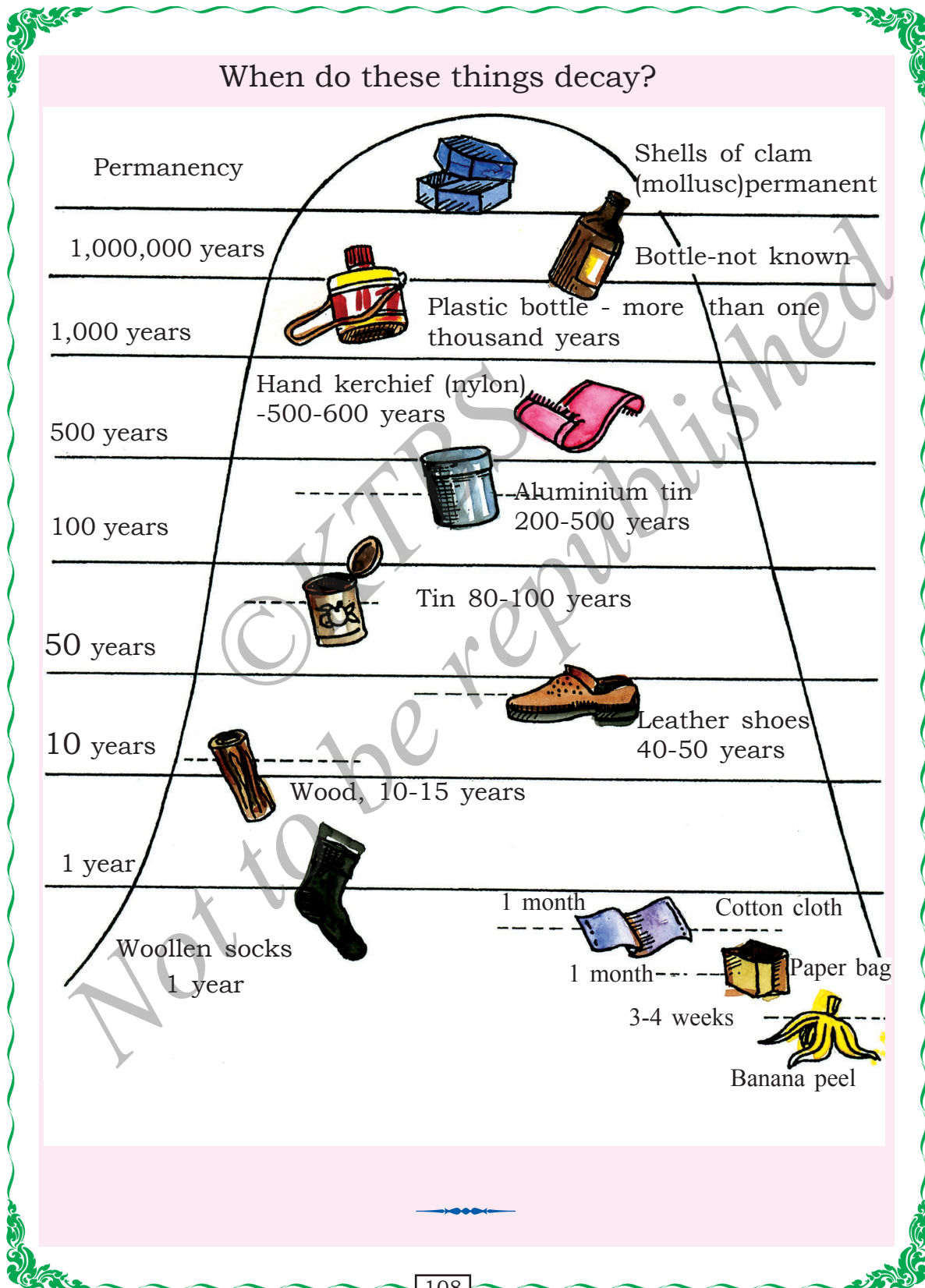
Rain cap from plastic

- Cut a plastic sheet which is two times the area of your head.
- Fold the sheet into pleats of two inches each.
- Join both the ends by pleats keeping a cloth strip and stitch them together. Your rain cap is ready to protect your head from rain or heat.

Similarly decorate old plastic or tin boxes and use them as pen stands and flower vases to decorate the house.

Do you know ?

- We can convert and use about 75-80 percent of the total solid wastes generated in our country into manure.
- New materials are made by recycling glass, metal and plastic materials.
- Packing of some products costs more than the products themselves.
- Every year innumerable number of sea animals die due to plastic wastes.
- If cotton cloth takes one month to decay, nylon cloth takes 500-600 years to decay.



LESSON – 12

LEARN MAPPING - KNOW DIRECTIONS

After studying this lesson you,

- locate direction by using local symbols.
- learn the basic skills of drawing maps and draw map using different symbols to locate the places.

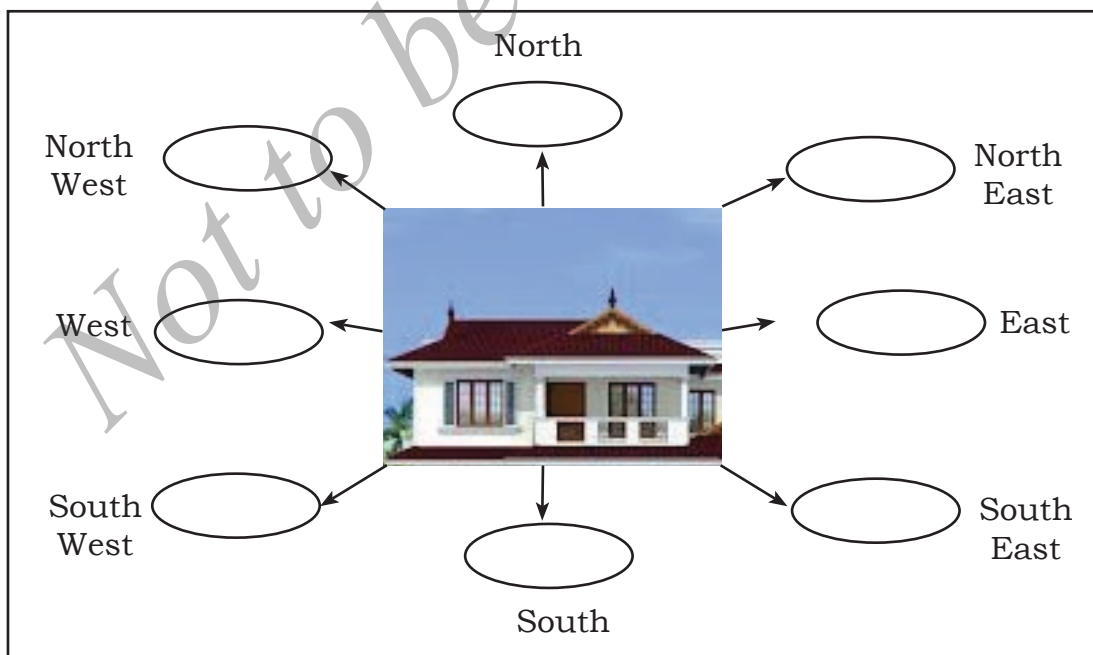
You know something about mapping. Look at the map given below. There is a big banyan tree in the middle of the village. Identify it.



Write the directions of the given places with reference to the banyan tree.

1. *pond* _____
2. *library* _____
3. *school* _____
4. *post-office* _____
5. *park* _____
6. *temple* _____
7. *fair-price shop* _____
8. *veterinary hospital* _____
9. *mosque* _____
10. *church* _____
11. *hospital* _____
12. *well* _____

Your house is shown in the picture given below. Write the things around your house according to the direction.



Write the things around your school according to the direction.

East	_____	West	_____
North	_____	South	_____
North East	_____	North West	_____
South West	_____	South East	_____

Observe the map of Karnataka in your school. Write the direction of the places given with reference to the state.

Arabian sea	_____	Andra Pradesh	_____
Maharasthra	_____	Kerala	_____

Yasmin of 4th standard has learnt to draw a simple map of her class room. Listen to her.

Yasmin : My teacher asked me to measure the length and breadth of my class room with my foot steps. When I did so, I found that the length of the room is twelve foot steps and breadth of the room is ten footsteps. My teacher told me that my two foot steps are equal to one meter. The foot steps differs from person to person. Someone's one foot step may be $\frac{3}{4}$ th meter. Know the length of your foot step. Measure your room by placing your foot steps and record it. I'll tell you how to draw the same on a sheet of paper. Let us imagine that the length of the room, you measured is 12 foot steps and breadth is 10 foot steps.

So, if your two foot steps are equal to 1 metre

12 feet : 6 metre

10 feet : 5 metre

That means the length of the room = 6 metres

The breadth of the room = 5 metres

If we convert one metre into one centimeter on a scale,

$$6 \text{ metre} = 6 \text{ cm.}$$

$$5 \text{ metre} = 5 \text{ cm.}$$

Sketch this measurement of cm on a sheet of paper.
This is the outline map of your class room.

5 cm.(breadth)

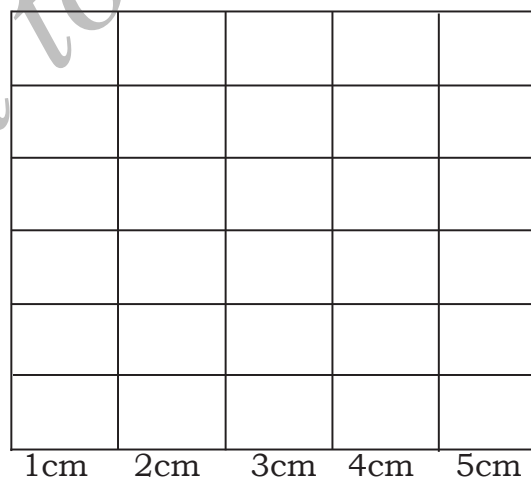
6 cm.
(length)



Now you have to identify the things. To locate the exact position of these things, draw lines of 1cm distance as shown on the map given below.

5 cm.

6 cm.



1 cm.

2 cm.

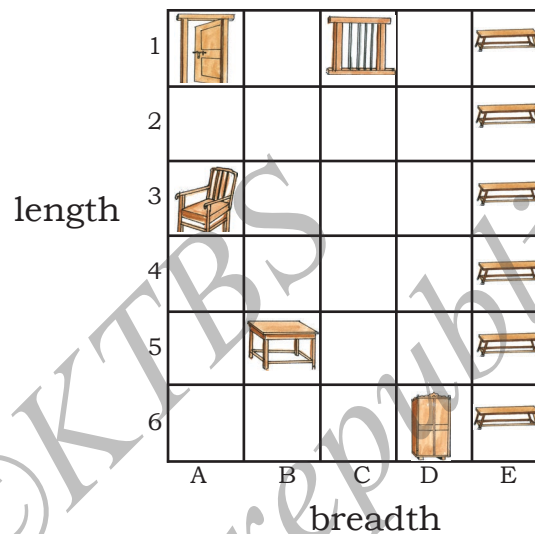
3 cm.

4 cm.

5 cm.

6 cm.

Now, give a number to each of the following squares. Give numbers for length, and letters for breadth. It helps to identify the things easily. Then identify the things of the class room in these squares according to their position. One example is given here.



Identify the squares on the map in which the things are situated.

Things	Breadth	Length
door	A	1
window		
chair		
wardrobe		
bench 1.		
2.		
3.		
4.		
5.		
6.		

Sketch the map of the classroom of your school or house measured by you as you learnt from Yasmin. Identify the things of that room in the map.



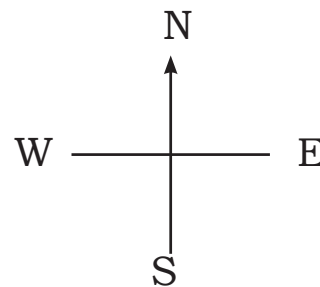
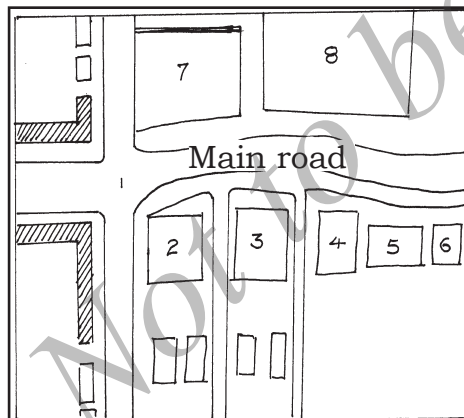
Know this

Large area can be represented on a map. The squares in the maps are helpful to find out the exact location of the things.

Let us see how Anwar directed a person to go to taluk Office.

In the centre of the main road there is the Gandhi Circle. If you go towards its east, on the right side you will see a hotel. Next to this, there is a hostel, then a post office and a school. Next to the school is the taluk office. It is situated about twenty meters away from the school. I have measured the distance by my foot steps.

Anwar has drawn a simple map of the area from Gandhi Circle to the taluk office with the help of directions and land marks.







- Land marks :**
- | | |
|-------------------|-----------------|
| 1. circle | 2. hotel |
| 3. hostel | 4. post office |
| 5. primary school | 6. taluk office |
| 7. high school | 8. play ground |










Answer the following in a sentence each.

1. Which measurement is used on a map to sketch a vast area?










2. How can the exact location of the things be represented on a map?

In a square shaped room, a table and four chairs have to be arranged. How do you arrange them in the map of the room.

				
4				
3				
2				
1				
	A	B	C	D

Things	Square	Things	Square
	A 4		_____
	D 1		_____
	D 4		_____
	A 1		_____
			_____

Draw a simple route map from your house to your school. You can use the following symbols to draw the route map.

 house	 temple	 mosque	 church	 school
 pond	 post office	 well	 tree	

After drawing the maps, exchange your maps with your friends'. Know the route, directions and land marks to your friend's house from the maps. Route map can be drawn with the help of land marks and directions.

In this simple map, a bus route has been shown with arrow marks. Make a list of the landmarks you see while travelling by bus.



Do you know this?

- All the maps have centimeters or inches as the units of measurement.
- World map is the map of the earth.
- One can easily understand the physical features, land routes and populated areas with the help of the map.
- Longitudes and latitudes, the imaginary lines help to form the grid on the map.
- There are different types of maps. For example, physical map, soil map, weather map, train route map etc.
- It is believed that the Egyptian kings used to draw maps to know the regions of their rule and the Greeks drew the map of the earth in 540 B.C.

LESSON – 13

OUR BODY - A WONDERFUL MACHINE

After studying this lesson you,

- know the main functions of the human body and the main organs responsible for these functions.
- develop the habits of cleanliness to keep these organs healthy.
- know healthy habits.

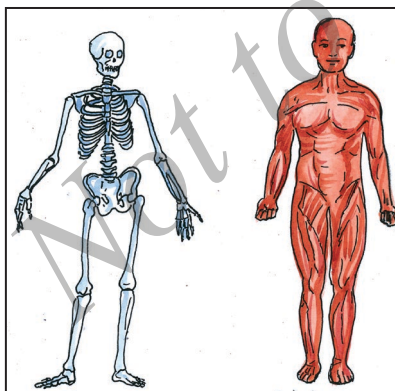
Remember that you have learnt about the functions of the sense organs in the previous classes. Sense organs and their functions are given in the list below. Match them by drawing lines.

A

eye
ear
nose
tongue
skin

B

to smell
to taste
to see things
to feel heat or cold
to hear sounds



These organs are situated outside the body and we can see them. There are many organs inside our body. We cannot see them. Let us learn about them.

You cannot see the muscles and bones of our body which are covered by the skin. The skin protects our body. Bones and muscles together give shape and structure to our body.

There are differences between the shape and structure of your body and the shape and structure of the bodies of your friends. Observe them.

The important functions of our body such as respiration, digestion, blood circulation and excretion keep our body strong and healthy. Learn about the inner organs of the body and their functions.

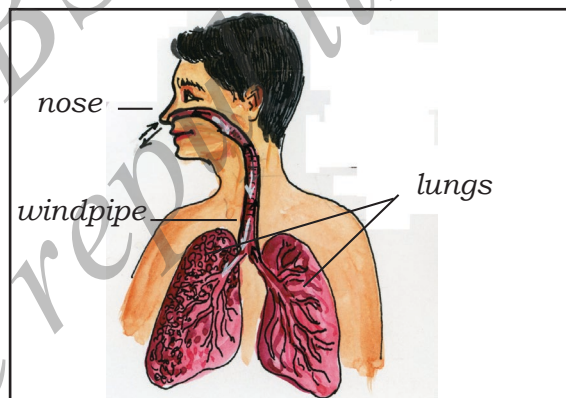
Respiration

You know that you take in air through the nose.

Do it yourself

Keep your hand on your chest. Slowly breathe in air. Then slowly breathe out air. What do you feel?

Look at the picture. Air enters our body through some organs and in the same path it comes out. So the hand on the chest feels the rise and fall. The path and the organs in which the air passes through are shown in the picture. Write them in the correct order.



1. _____
2. _____
3. _____

Our body needs oxygen that is in the air. When we breathe, the lungs absorb the **oxygen** from the air. The **carbon dioxide** which is not needed to our body goes out with the air through the wind pipe and the nose.

The process of taking in oxygen and giving out carbon dioxide is called **respiration**.

Do it yourself

How many times do you breathe in a minute? Count.

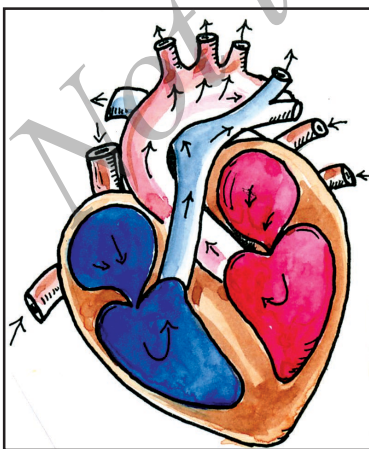
Practise healthy habits for proper respiration. Some of them are given here.



Know this

- Clean your nose regularly when you take bath.
- Do not cover your face while sleeping.
- When you are moving in the place of dust, take care to avoid dust entering your nose.
- Do not be in a hurry while eating food and drinking water.
- Do not expose yourself to smoke. If you breathe smoke, it causes problems related to lungs.
- At least once in a day sit straight and take deep breaths for ten times. Practise it daily.
- Do not put things such as stick, pen, piece of chalk etc., into your nose.
- Do not breathe through the mouth.
- Cover your mouth with a handkerchief while coughing or sneezing. The germs can be avoided from entering the air if you are suffering from cold and cough. This avoids the spreading of cold and cough to others.

Blood circulation.



Observe this picture. Write its name here.

You have seen the discharge of blood when the body is injured. What colour is the blood? Write here.

Do you know that the blood circulates in all parts of the body. The main organ of the body which pumps blood to all parts of the body is called the **heart**.

Do it yourself .

Fold your left hand fingers to make a fist. The size of your heart is almost equal to your left fist.



You have already learnt about the lungs. The heart is located between the lungs, slightly towards the left. It is protected by the chest cavity.

Have you seen lifting water from a well through pipes with the help of a pump? In the same way, heart pumps blood to all parts of the body through blood vessels.

Do it yourself.

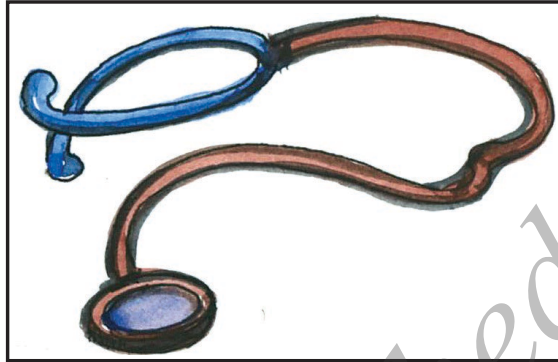
Keep your hand on the chest of your friend. Feel the lub-dub sound of heart. The sound is produced when the heart pumps blood.

The blood circulates to all parts of the body. It gets impure by receiving carbon dioxide from all parts of the body. This impure blood enters the heart through blood vessels.

From the heart, this impure blood reaches the lungs. In the lungs, it gives up carbon dioxide and receives oxygen and becomes pure. The pure blood reaches the heart once again through the blood vessels. The pure blood which has oxygen reaches all parts of the body through blood vessels. This is **blood circulation**.

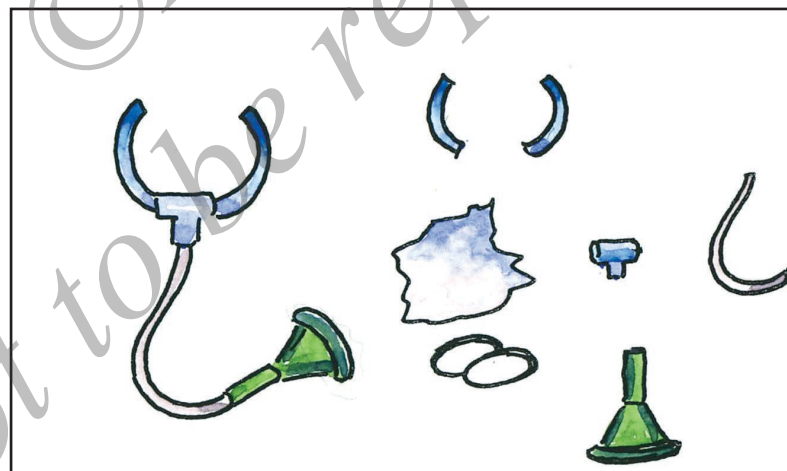
How do doctors examine the heartbeat? Have you seen?

The picture of the instrument used by doctors to know the heartbeat is given here. Write its name.



Do it yourself.

Take three plastic tubes, a **T** shaped tube and a funnel, a thin rubber or plastic sheet and some rubber bands. Join them as shown in the picture. Your stethoscope is ready.



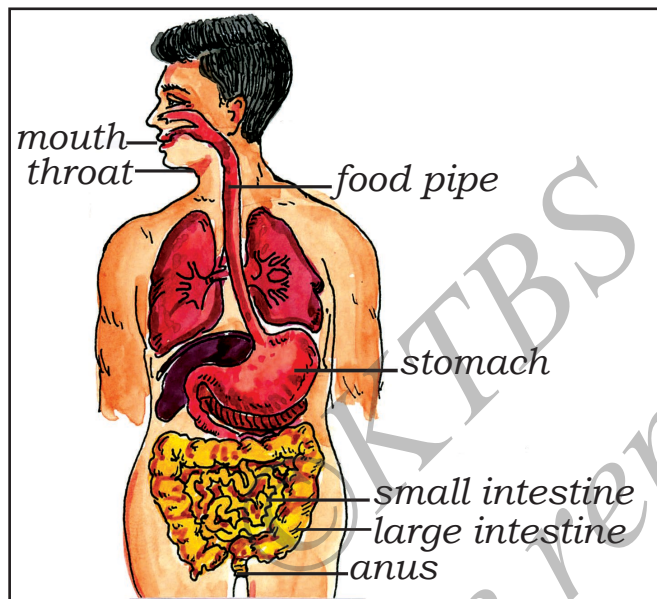
Keep the funnel of the stethoscope on the chest of your friend. Keep the two tubes into your ears and count the heartbeat.

How many times does a heart beat in a minute? Keep your palm on the chest and count the heartbeat.

For proper blood circulation in your body, eat vegetables and fruits regularly. Do exercises daily.

Digestion

Do you eat food regularly? Where does it go? What happens to the food that you eat? Do you know?



Observe the picture. The food you eat moves from organ to organ from the mouth. Look at the picture and write the names of those organs.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

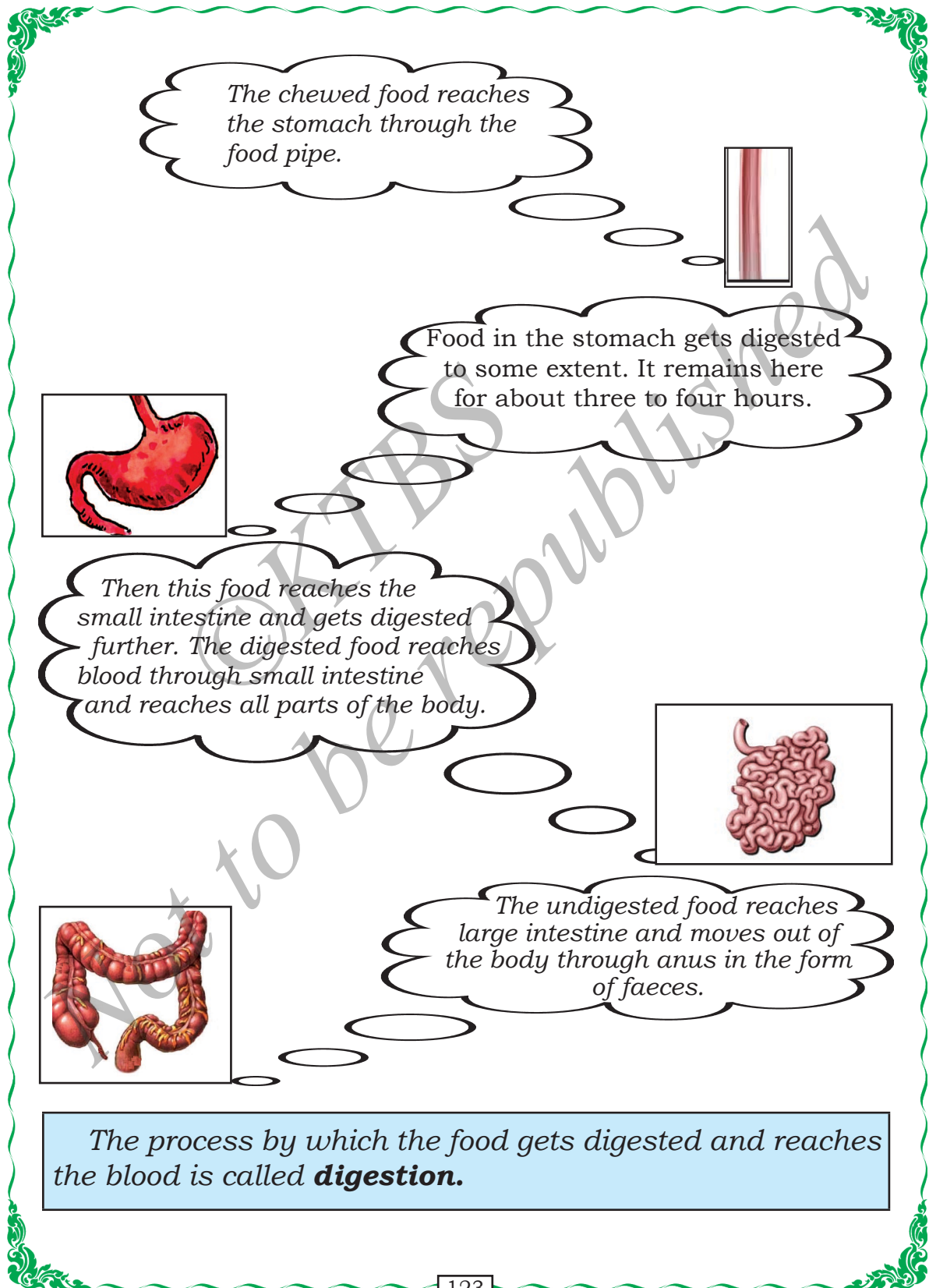
Have you written the names of the organs? Now write the parts of our mouth.

Which part of the mouth is helpful for chewing food items ?

What is the function of the tongue?



Teeth in the mouth
chew the food items
into small particles.



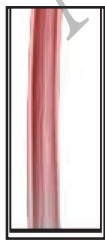
Play the game.


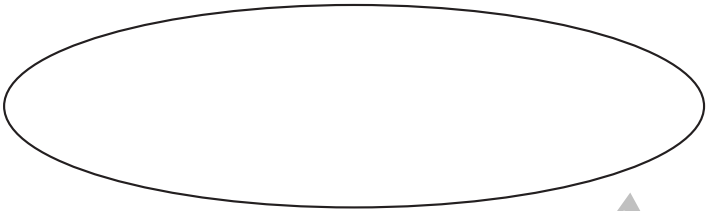

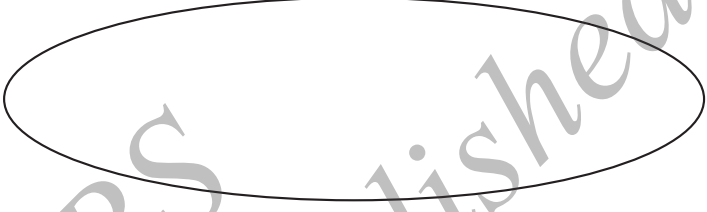
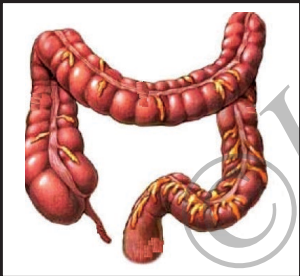
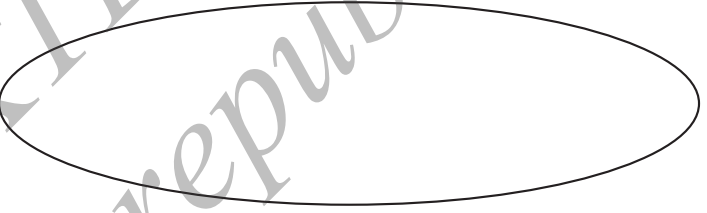
Write the names of the organs of digestive system in slips and put them in a box. Ask your friends to pick up one slip each from the box. Ask them to tell the function of the organ mentioned in the slip. Repeat the game. Take the help of your teacher if it is necessary.

**Know this****Good food habits**

- Wash your hands before and after taking food.
- Eat fibrous food such as beans, radish etc.
- Eat fresh and healthy food.
- Clean your mouth, teeth and tongue after eating food.
- Chew the food slowly and properly.
- It is better to eat once in four hours.

Write the function of the organ given in the picture in the space provided.



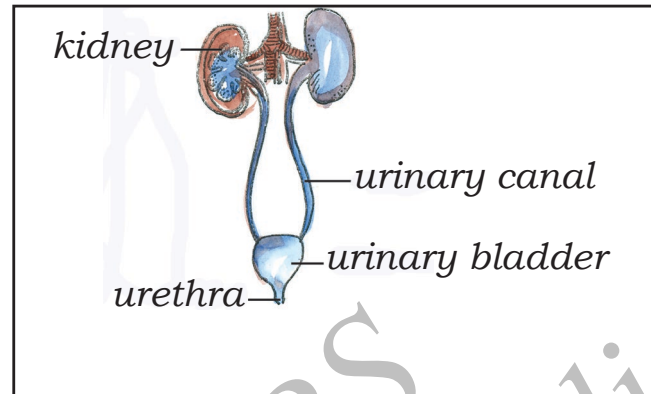
	
	
	

Excretion

Waste is produced due to the household activities. We throw out this waste every day. In the same way so many materials which are not required for the body are produced in our body due to the biological processes like digestion etc. These are wastes.

If these wastes remain in the body, they may cause some diseases. You know that the body removes these wastes through skin and lungs. These are excretory organs.

The body removes the wastes through urine. Let us learn about the excretory organs which help this process.



Observe the above picture. Write its parts here.

- 1) _____
- 2) _____
- 3) _____
- 4) _____

A pair of kidneys is situated on either side of the backbone. The blood gets filtered here. Impurities present in the blood are separated here. This waste reaches the urinary bladder through urinary canal. Then it passes out of the body through urethra in the form of urine.

Answer the following questions.

Which organ is responsible for the removal of carbon dioxide from the body?

Which organ removes impurities from the body in the form of sweat?

Which organ removes impurities from the body in the form of liquid?

**Know this**

- Pass urine regularly.
- Take bath everyday and wear clean clothes.
- Wash your face, hands and legs often. It helps to remove the wastes which are collected through sweat. This cleans the skin and opens the sweat pores.
- Drink 2 litres of clean water everyday. It helps to remove wastes from the body through sweat and urine.

You have learnt that our body is like a wonderful machine that performs respiration, blood circulation, digestion and excretion. Know about the steps to be taken for the proper functioning of your body.

**Know this**

- Practise to eat and excrete regularly.
- Play games, do exercises and walk daily.
- Eat healthy food. Do not over eat fried food items and sweets.
- Take bath daily and keep your body clean. Wear washed clothes daily.

Do you know this?

- There are 206 bones and more than 600 joints in our body.
- Even if your height is three feet, your digestive organs will be 20 feet long. They are in the form of coiled tubes.
- Our heart beats about seventy times per minute and one lakh times per day.
- Three litres of air is filled in the lungs.
- Human body contains about 5.5 litres of blood.
- Blood will be produced again after donating the blood. It needs 4 to 5 weeks.

LESSON – 14

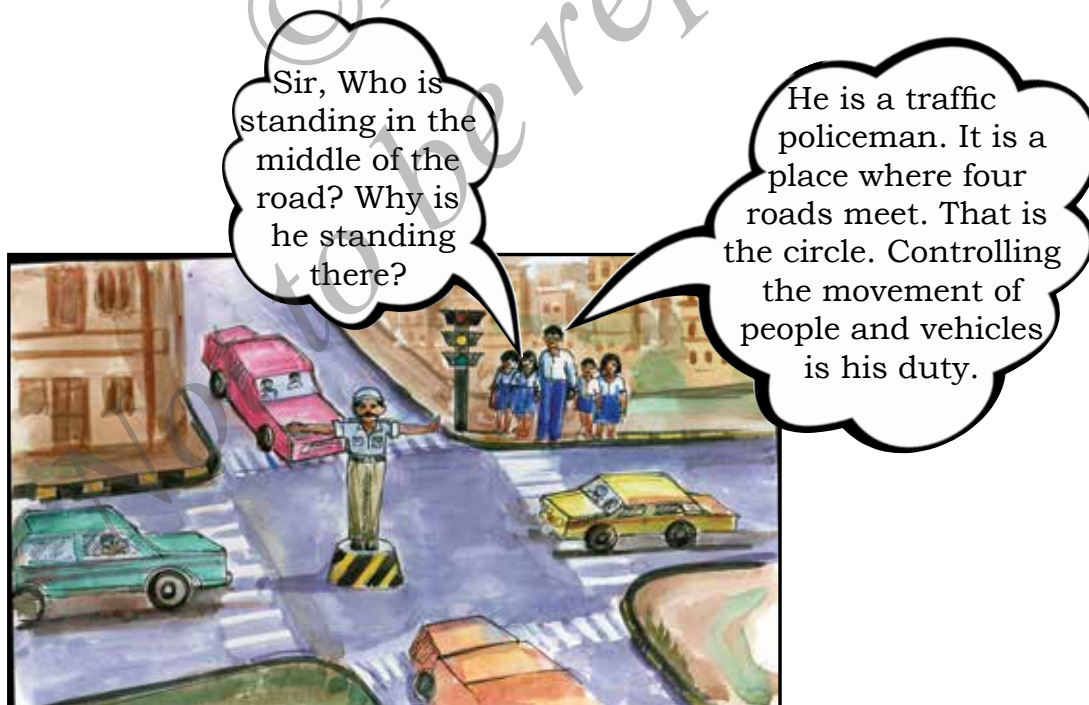
TRAFFIC RULES

After studying this lesson you,

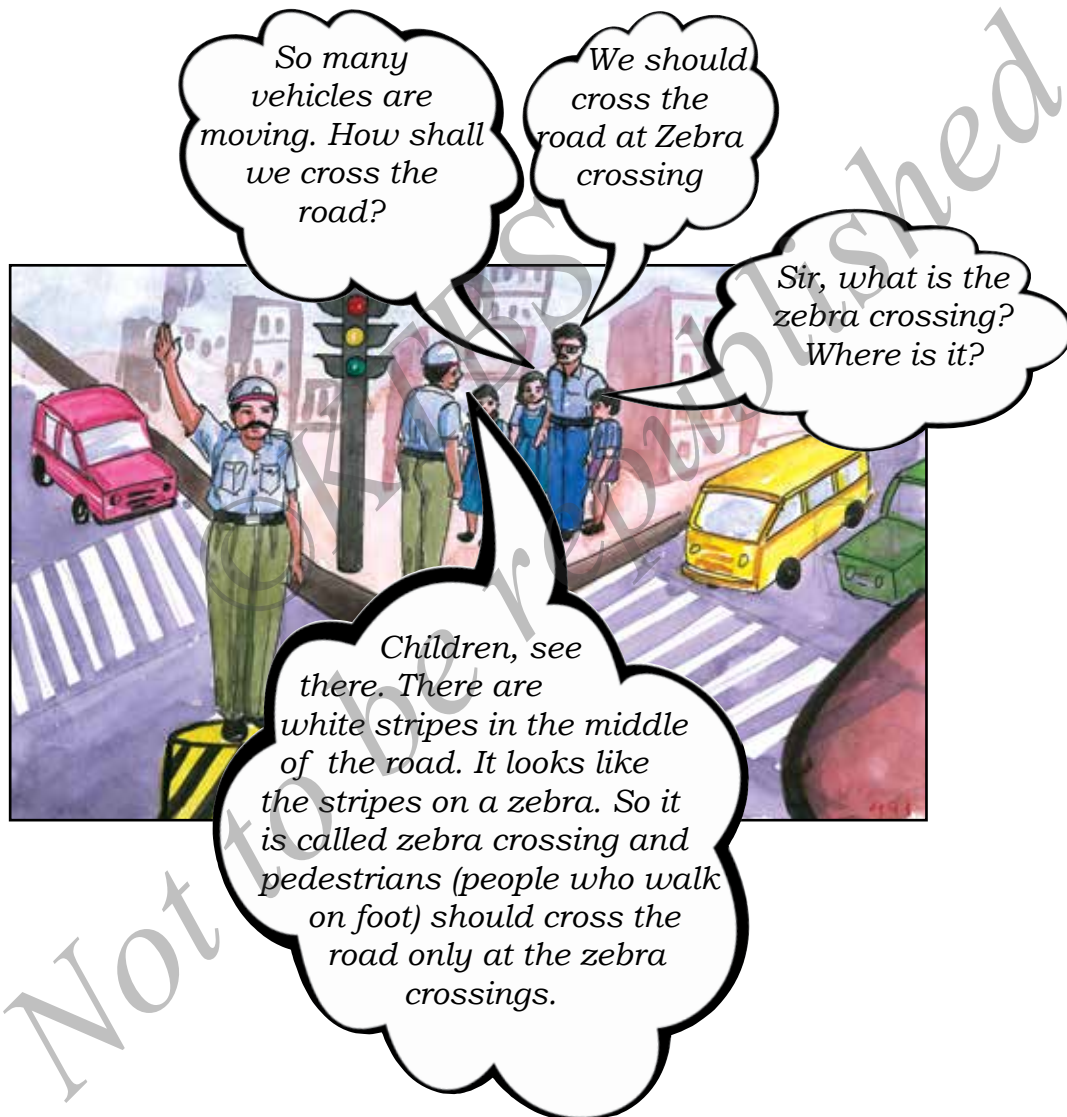
- *know the traffic signals, traffic rules and follow them.*

You have seen several sign boards by the side of the roads while travelling or walking along the road. Do you know what they indicate? Read the following picture story.

Savitha, Fathima, Neeraj, Mary and their teacher are standing on the footpath of a city road. A traffic policeman is controlling the movement of vehicles.



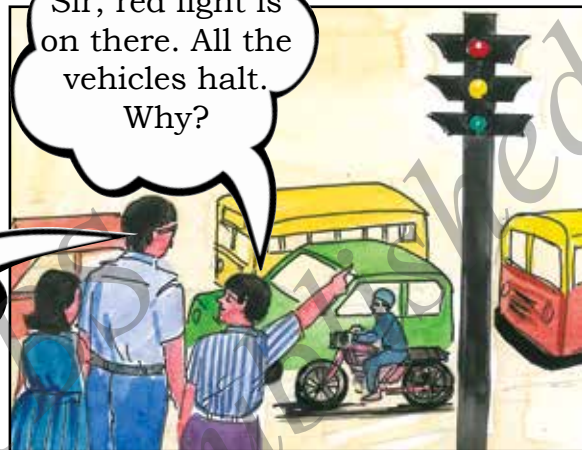
At that time another traffic policeman came near them. Teacher introduced himself.



In the meanwhile Neeraj saw the signal light.

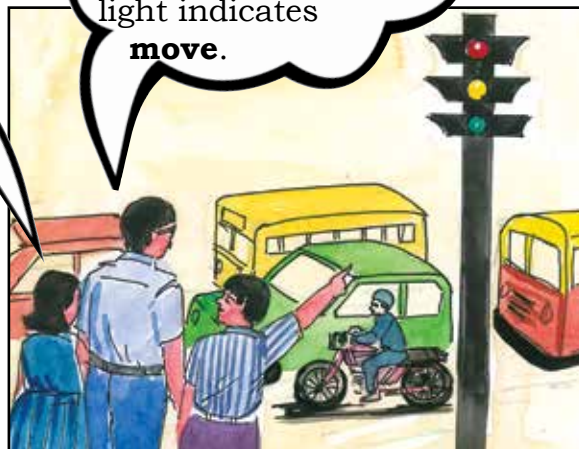
Sir, red light is on there. All the vehicles halt. Why?

That is the signal light. Generally we find it in circles where roads meet.



There are red, green and yellow lights in the signal light. Why?

These lights give specific instructions to the movement of vehicles. The red light indicates **stop**, yellow light indicates **get ready** and green light indicates **move**.



In the meanwhile red light was on. The vehicles stopped moving on the road where the teacher and students have to cross the road.

Sir, red light is on. Vehicles are not moving. Shall we cross the road through zebra crossing?

Stop, we should not cross the road when the red light is on. Another signal light is there for pedestrians to cross the road. Look there, the green light is on. Now we can cross the road on zebra crossing.



They crossed the road at Zeebra crossing.

Sir, Why do we need signal lights?

Traffic lights are there in circles to avoid accidents between the vehicles or between the vehicles and pedestrians and for the safe movement of vehicles and people.



The children felt happy knowing the traffic rules and went to the school.

You have read the picture story, haven't you? Savitha, Fathima, Neeraj and Mary have learnt some traffic signals and their instructions from the traffic policeman. You have learnt traffic rules. Now answer the following questions.

- Where should pedestrians cross the road?

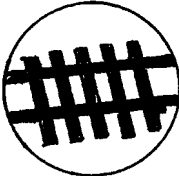






- Name the colours of the signal lights.

- Write one use of the signal lights.

- Do you come across traffic lights on the way to your school?

- What are the precautions that you should take while crossing the road? Why?

Some traffic signals and their instructions are given on the next page. Match them by drawing a joining line.

A	B
	Hump ahead drive slowly.
	Observe if railway level crossing gate is open and then move.
	Left turn.
	Hospital zone, go slow.
	Parking place.
	Go slowly.
	Do not use horn.

The rules that help us to travel safely are called 'traffic rules'. The traffic signals and sign boards are displayed by the side of the road for our safety.


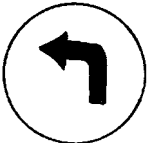





Write two advantages of following the traffic rules.

1. _____
2. _____

Here is a list of traffic rules that a pedestrian should follow. If it is right put (✓) mark and if it is wrong put '✗' mark and correct it.

Sl. No.	Traffic rules	Right	Wrong	Corrected answer
1.	Cross the road at zebra crossing.			
2.	If there are no signal lights, you can cross the road even while the vehicles are moving to your left and right.			
3.	You can cross the railway level crossing even if the train is passing.			
4.	You should not play games on the road.			
5.	You can board a moving vehicle or alight from it.			
6.	Follow the queue while boarding a vehicle.			
7.	Pedestrians should walk on the right side of the road.			

Where can you display the following signal boards in your locality? Write it in the space given. One example has been given. Observe.

Signal board	Place of displaying
	Near my school
	
	
	
	
	
	



Know this

We will be safe if we follow the traffic rules. Accidents can be avoided by following the traffic rules.

You already know about some accidents which occur at home and school. For example, if we do not take enough care while using electrical instruments, gas stoves, knives, blades, sickles, etc., we have to face danger. Write 5 situations of accidents that you know. Write suitable safety measures to be taken also.

Sl.No.	Situation of accident	Precautions
1.		
2.		
3.		
4.		
5.		

Do you know this ?

- **Bus day** has been celebrated in Bengaluru to avoid traffic jams, to save fuel and to avoid air pollution. On that day many people having own vehicles travel by bus.
- Transport department celebrates **Road Safety week** in January every year.
- In cities, transport department gives training to school students on traffic rules.
- When road accidents happen, free ambulance vehicle bearing No.108 has been provided in our state for taking the affected to hospitals for emergency treatment.



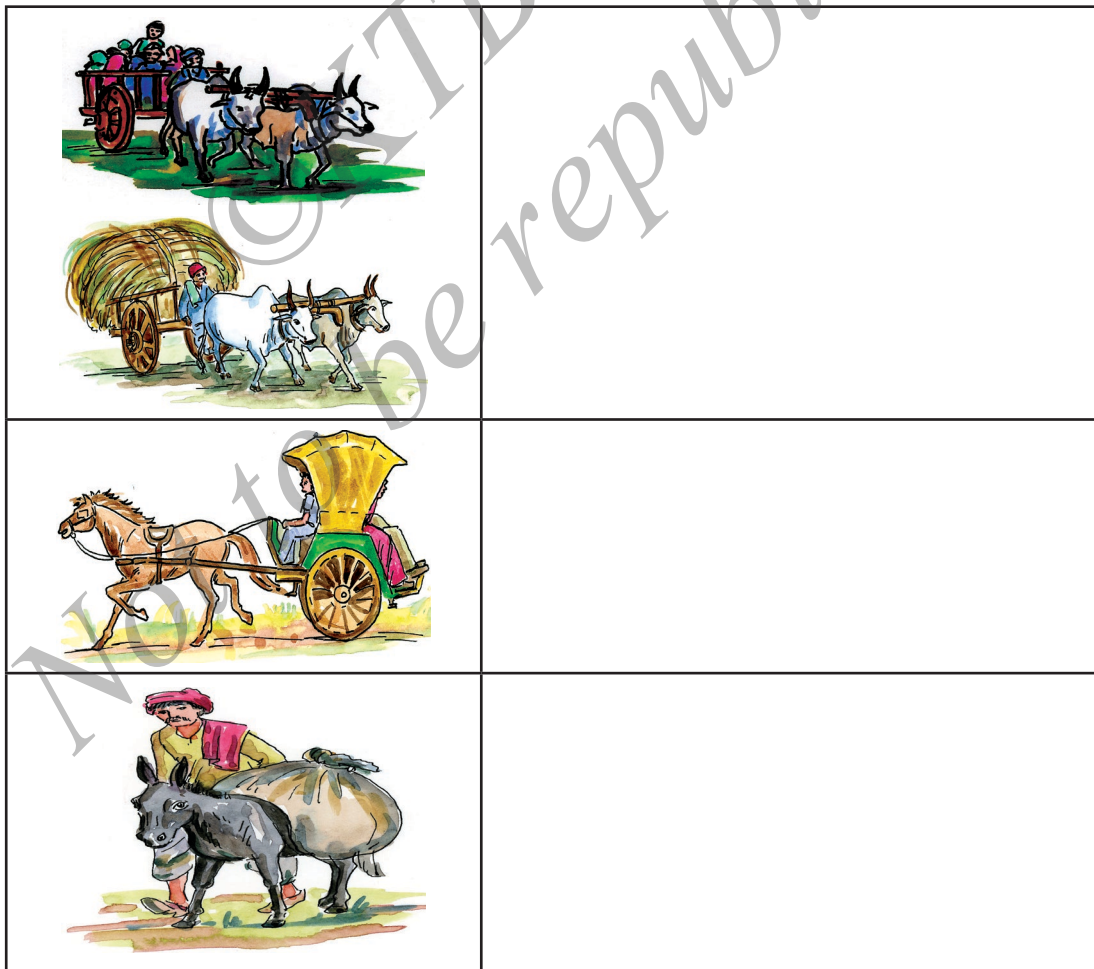
LESSON – 15

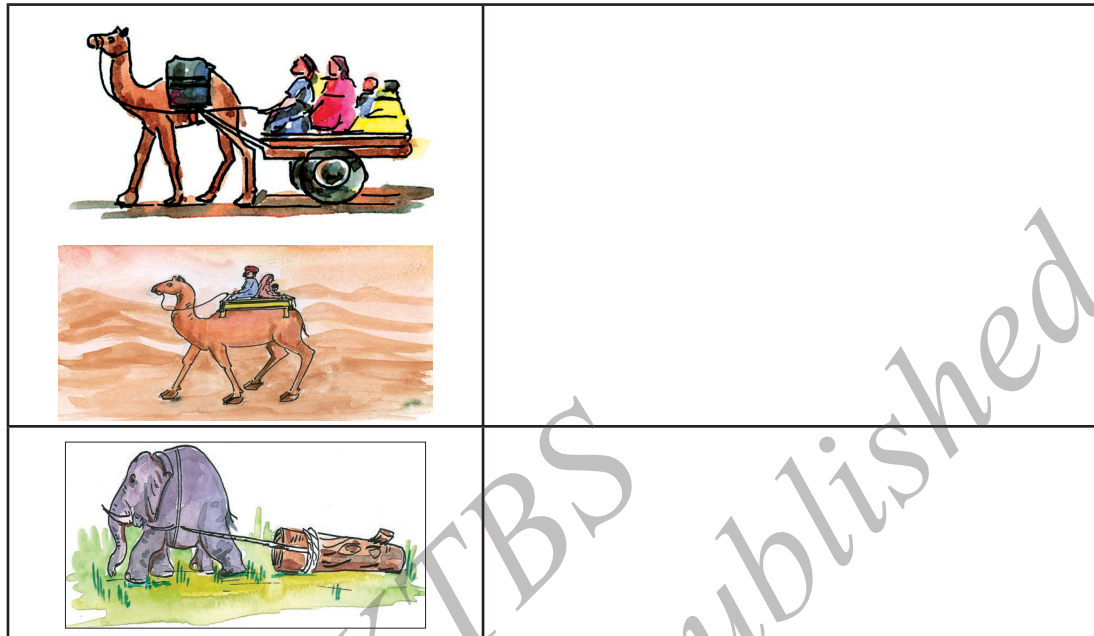
TRANSPORT AND COMMUNICATION

After studying this lesson you,

- *recognize the use of animals as mode of transport.*
- *behave sensitively about animals.*
- *recognize the changing mode of transport over the years.*

Observe the pictures given below and write the specialty you find in the pictures.



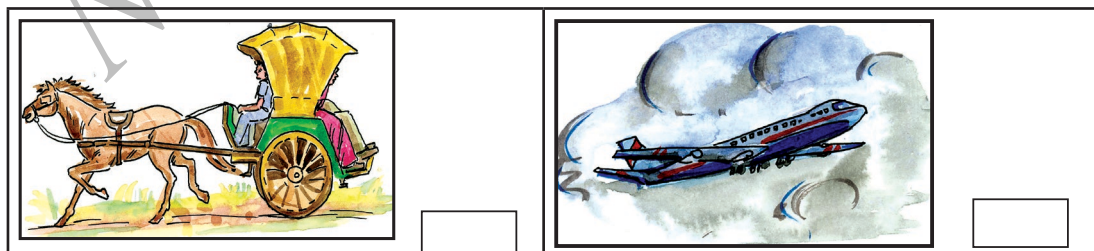


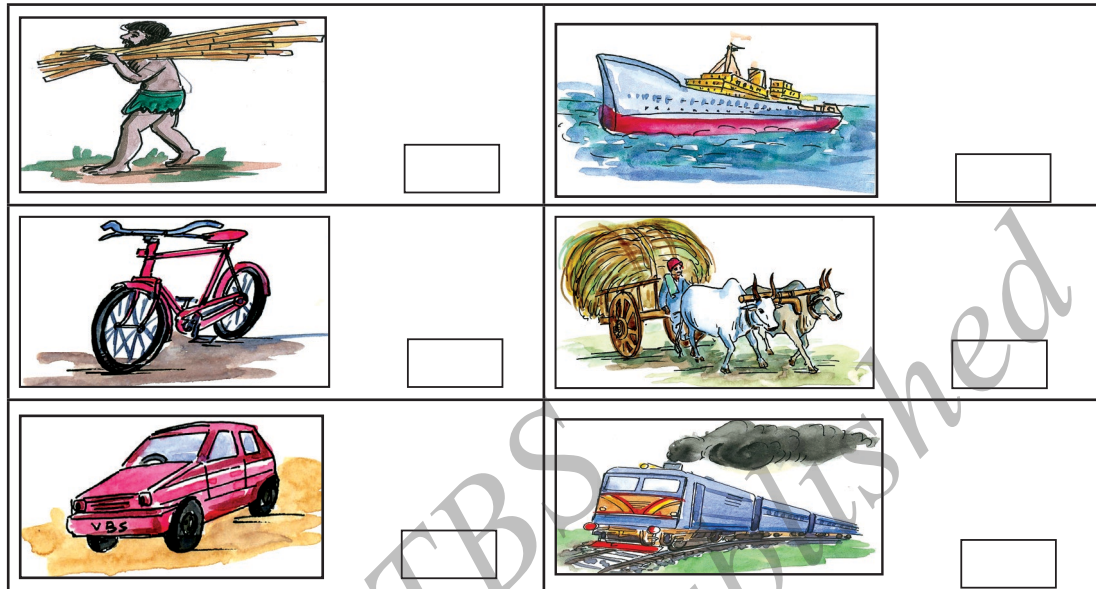
- Do people use animals for transport in your locality ?

- Which animals do they use?

- For what purposes do they use these animals?

Observe the pictures given below. Identify the changes that have taken place in transport and put serial number to show the order.





Know the names of the animals which were used for transport in olden days and write them in the boxes given below.

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

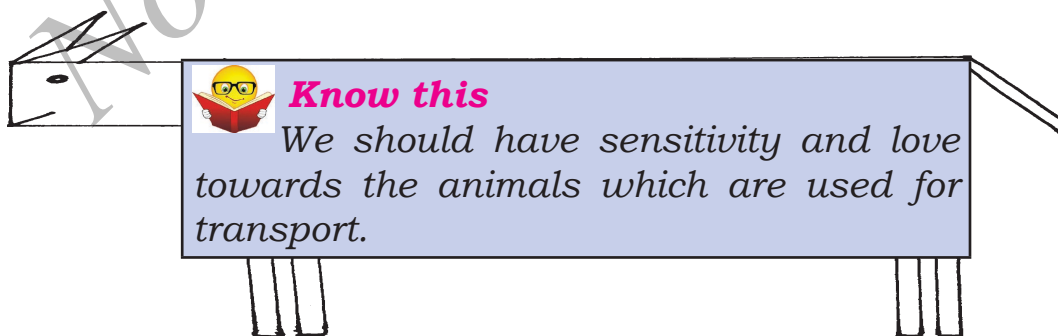
Know and write the names of the animals which are used for transport now.

<input type="text"/>	<input type="text"/>	<input type="text"/>
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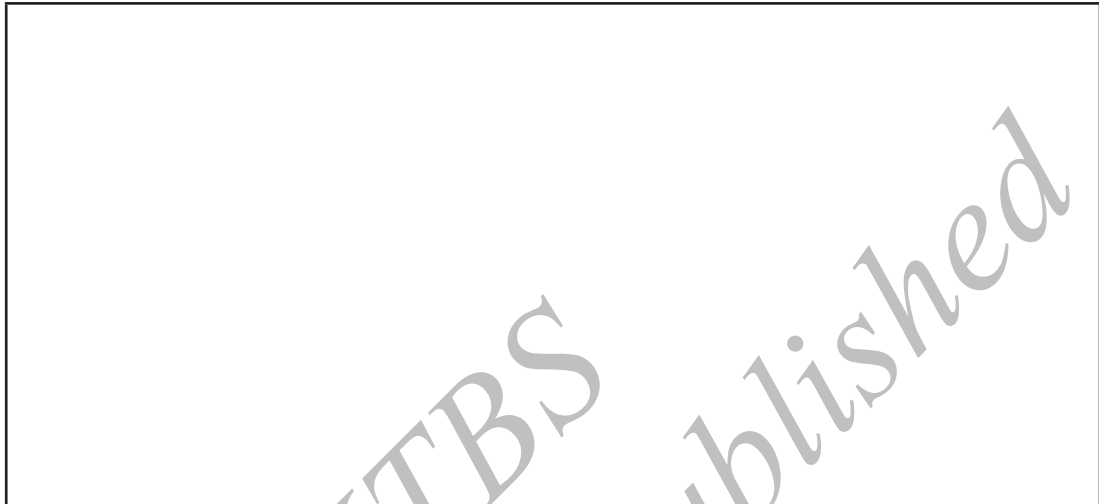
Is there any difference in using animals for transport between the olden days and now? Write with the help of elders.

How do people look after the animals which are used for transport in your locality? Write it in the space given.

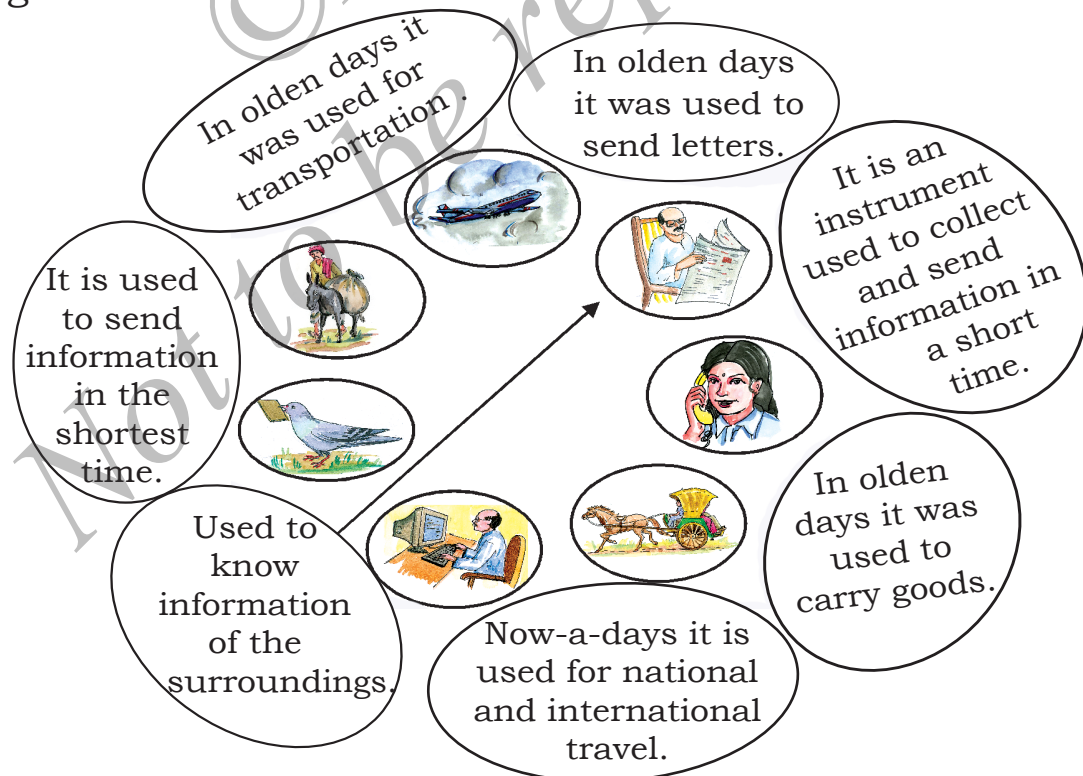
How should the animals which are used for transport be looked after? Know with the help of elders and write it in the space given.

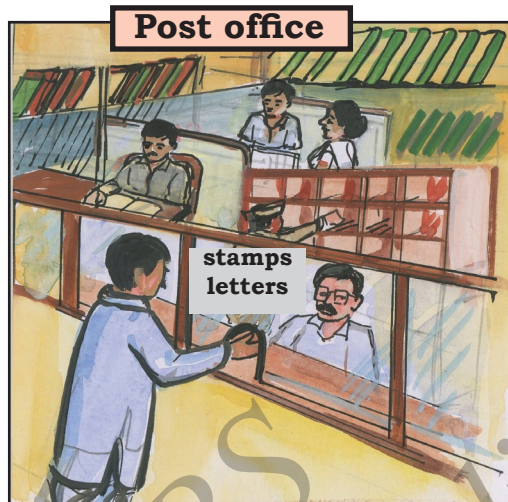


Collect and paste here or draw the pictures of animals which are used for transportation.



Observe the picture carefully. Read the explanation given and match with the correct pair. One example is given.





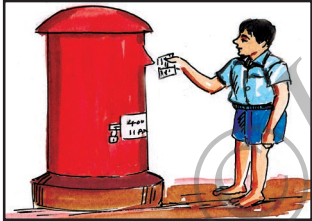

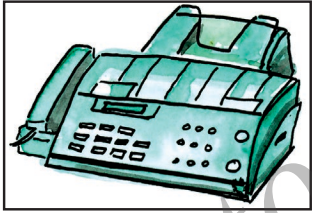



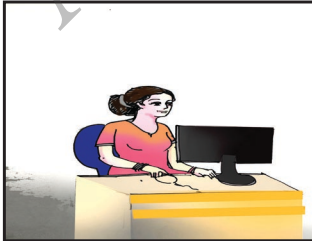

Visit a nearby post office or contact the postman and collect information about the following and write here.

stamp	
post cover	
parcel	
speed post	

Write a letter to your friend inviting him to attend your village fair. Write his / her address on the letter and put it in the post box.

	To <input type="checkbox"/>

Observe the following pictures carefully. Put (✓) mark in front of the means of communication used by you and your family members.

	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>

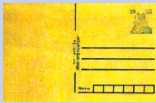





Collect information about the means of communication which were used in olden days and which are used in the present days.

Means of communication used in olden days.	Means of communication used in the present days.

Is there any difference? Observe.



Know this : Look at the pictures given below and read the information.

	A means of communication through writing that can be sent with the help of post office.
	An instrument through which we can directly speak to the other person at a distance
	A means of communication which publishes news from different parts of the country and the world everyday.
	An attractive means of communication in which regional, national and cultural programmes are telecast.
	A means of communication in which regional, national and international news can be heard.
	A wonderful means of communication used to get and send any information of the world with in a very short time.

Collect and paste the pictures of various means of communication. Write their names and a few sentences below them.



Know this

Who discovered what?

- Wright brothers - aeroplane
- Grahm Bell - telephone
- Charles Babage - computer
- John Biard - television
- Marconi - radio

Do you know this?

- The train is the major mode of transport in India.
- The first train in India ran in 1853 from Bombay to Thane about 34 km.
- The camel's body structure is suitable for walking in deserts. It is used for transport in desert areas. So it is called **the ship of the desert**.
- Submarine travels in the deep sea.
- Spacecrafts are used to study the things beyond the earth.
- Paper published everyday - daily news paper, Paper published once in a week - weekly news paper, Magazine published once in fifteen days - fortnightly magazine, Magazine published once in a month - monthly magazine.
- The first animal which was used for transportation was a dog.
- Some of the fast moving trains in the world can travel at more than 350 km per hour. These trains can cover the distance between Bengaluru and Hubballi in an hour!

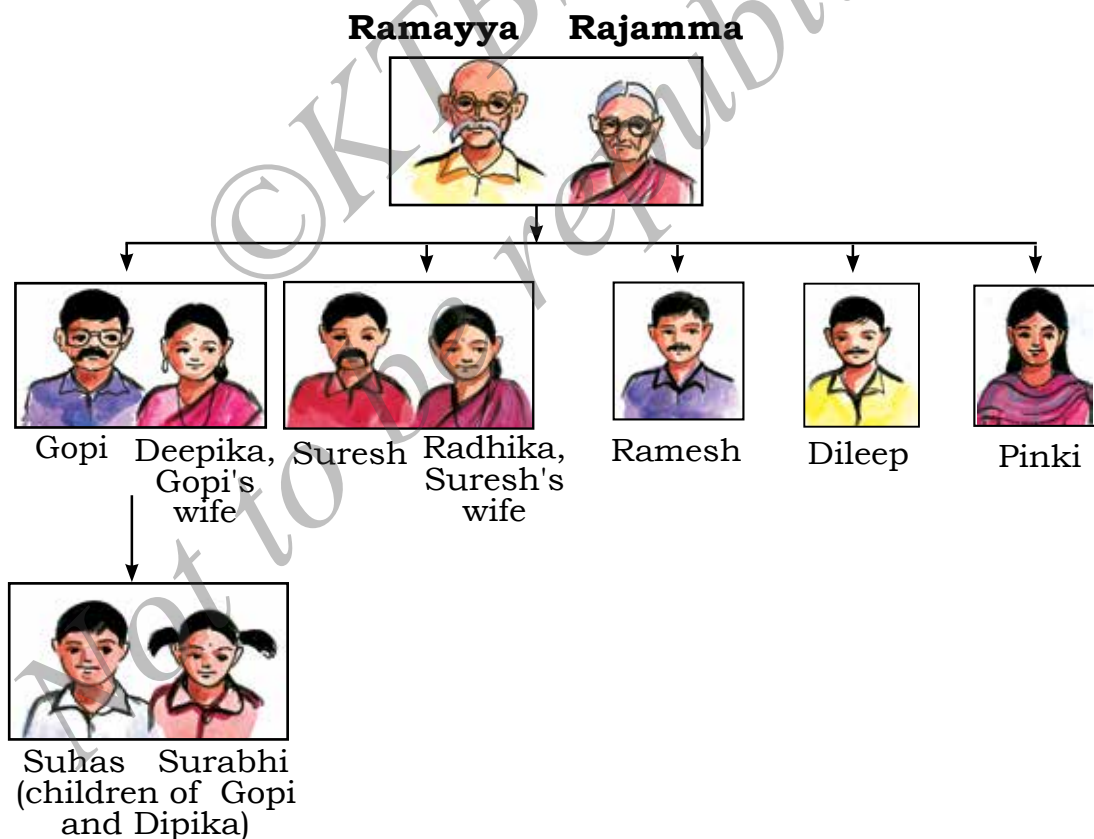
LESSON – 16

THE CHANGING FAMILIES

After studying this lesson you,

- recognize the changes that have taken place in the family system over the years.
- record the changes in a simple family tree.

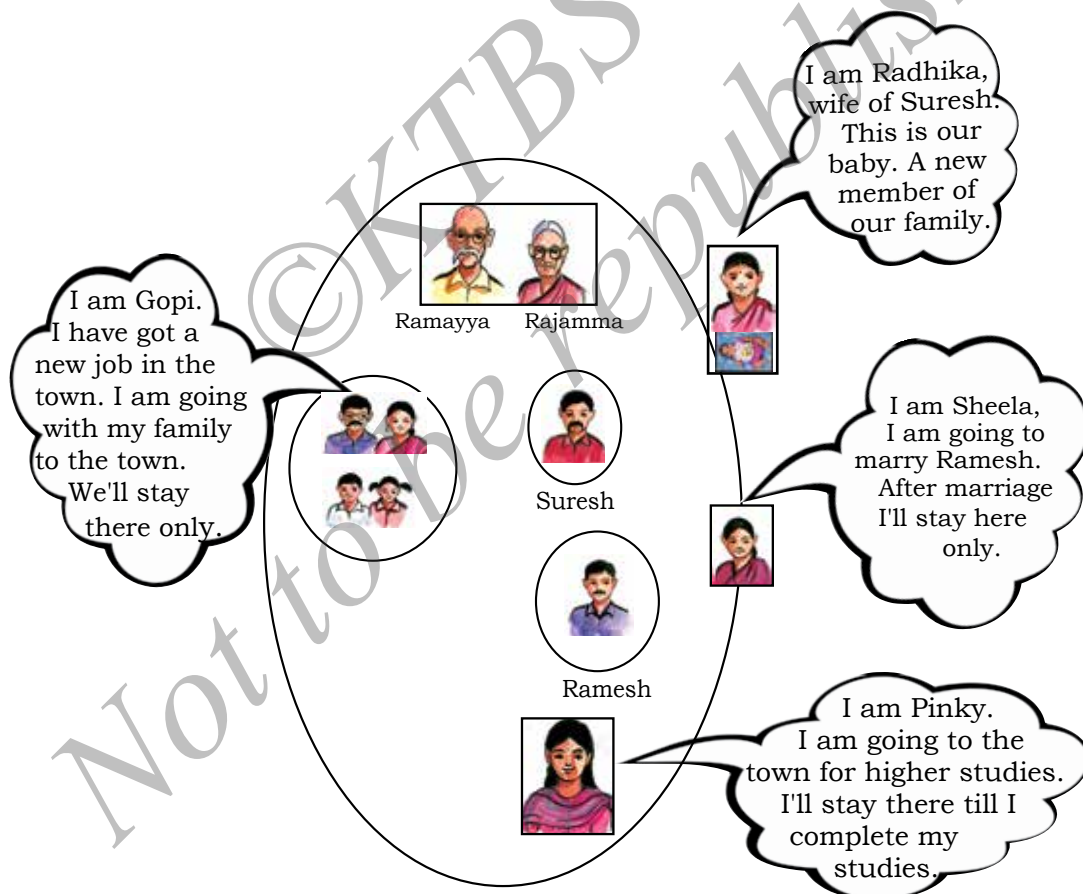
It is the picture of the family of Ramayya and Rajamma which was drawn last year. Observe carefully.



How many members are there in this family?

How many children does Ramayya have?
Who are they?

How many children does Gopi have? Who are they?



Identify the changes that have taken place in Ramayya's family this year.

Why does Gopi want to shift his family to another place?

Why does Pinki go to town?

Why does Sheela come to this family?

Who is the new member of Suresh's family?

Draw the family tree of Ramayya. Put a circle around those who have gone out and put a square around those who have come into the family. Identify the changes that have taken place in Ramayya's family.



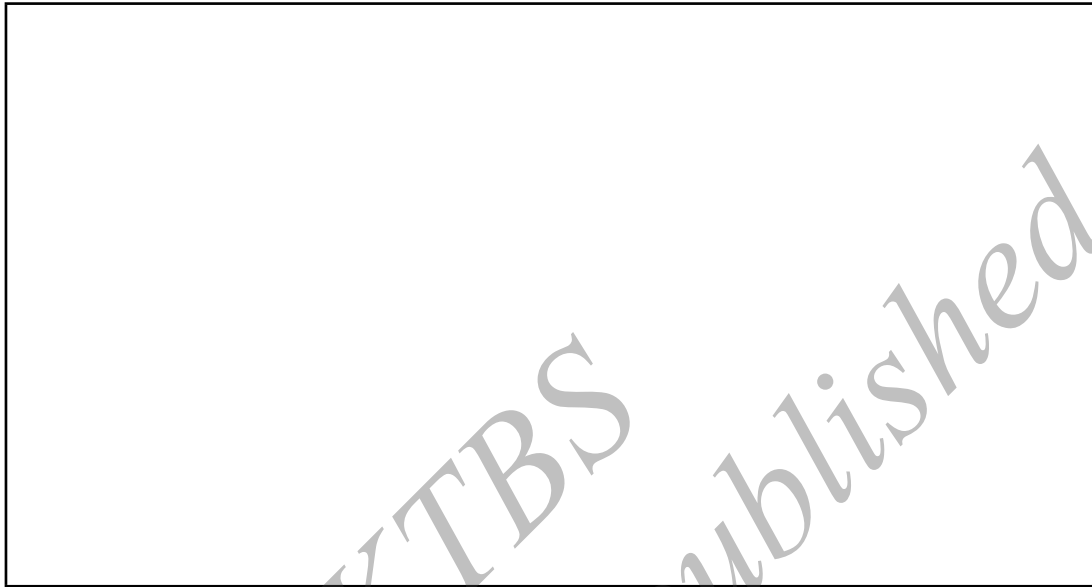
How many members are there in Ramayya's family this year? Why?



Know this

Some of the members of the family shift to other places due to some reasons and new members join the family.

Draw the family tree of your family.



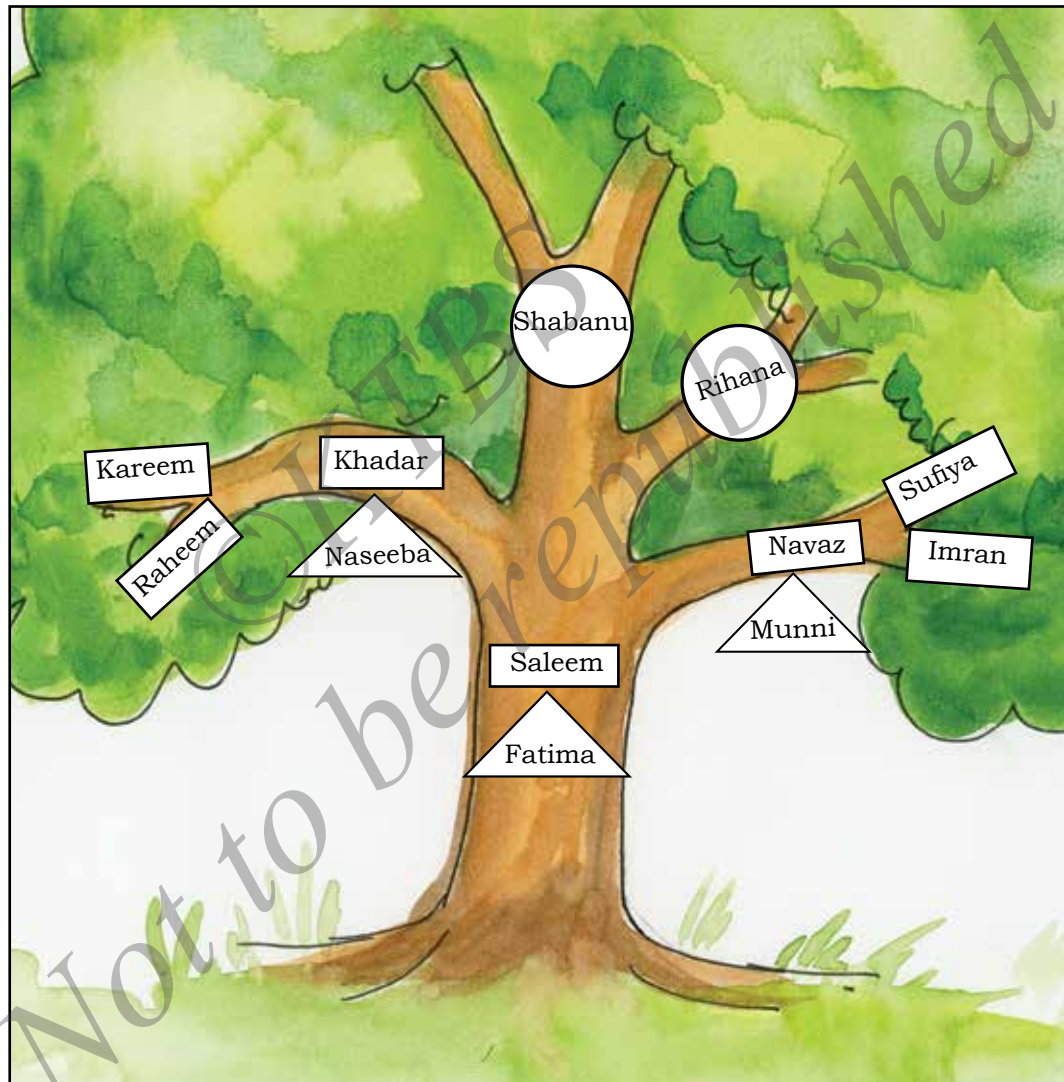
If anybody joins your family newly, put Δ mark for new members. Write the details here.

Name	Relationship	Place of coming	Reason for coming

If anybody of your family shifted to other places, put \bigcirc mark for them. Write the details here.

Name	Relationship	Name of the present place	Reason for shifting

Here are the family trees of two families. ○ mark indicates those who have gone out of the family and △ mark indicates new arrivals the family.

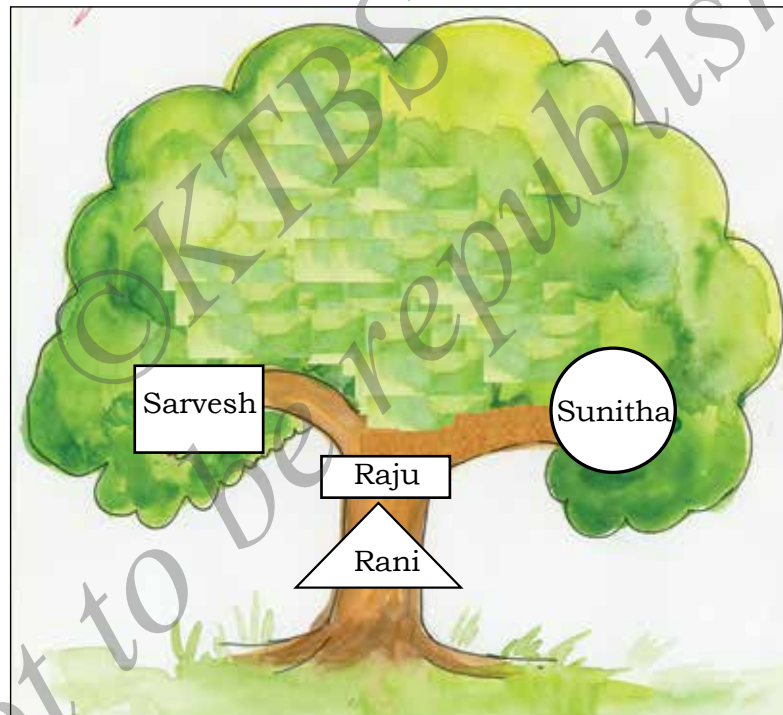


How many children do Saleem and Fathima have?

How many members are there in Saleem's family now?

How many members have gone out of Saleem's family?

How many new members came to Saleem's family?



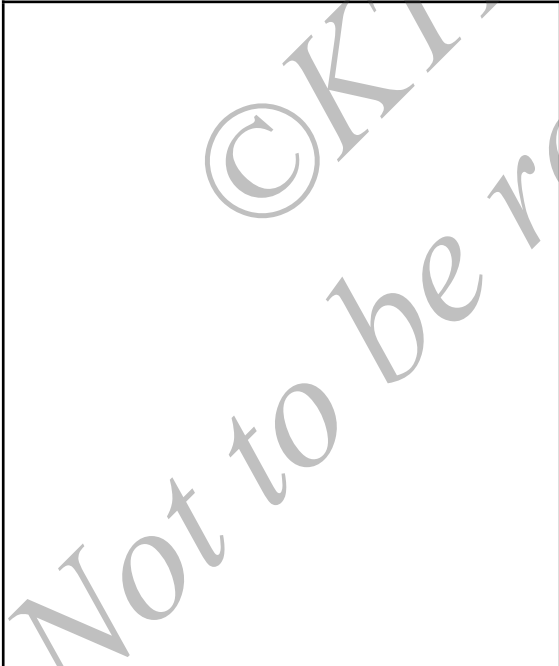
How many members are there in Raju's family?

How many new members have joined Raju's family?

How many members have gone out of Raju's family?

Compare Raju's family and Salim's family. Which family is bigger? Why?

With the help of elders draw the family tree of your family as it existed four years ago. Draw the family tree of your present family.

Family tree 4 years ago	Present family tree
	

Compare both the family trees that you have written.

Which one is the larger family?

Is there any change in your family during these four years? If yes, give reasons.

Observe the families in your neighbourhood. Draw the family trees of a big family and a small family.

Big family	Small family
	

With the help of your elders, make a list of the reasons for the migration of family members to other places and write here.

Do you know this?

- People of 7 generations are residing in a family in the village of Lokuru 25 km away from Dharawada. Now there are 180 members in this big family.
- In Krishnamurthy's family which is recognized as M.M industry family, there are 40 members and are residing at Bengaluru.
- Because of misunderstanding, non-cooperation, inequality in work distribution, new requirements etc., big families changed into small families.
- Family tree or information of 3 generations is used for some rituals and economic transactions.

LESSON – 17

HOME - THE FIRST SCHOOL

After studying this lesson you,

- know that the family is a small unit which has its own religion, values and cultural practices.
- observe the changes that have taken place in the society due to the change of values in families.



Pavithra

My father does Pooja every morning. We eat together at night. My father always brings the same type of books and pens for me and my brother. He tells us to respect everyone and to help those who are weak. He distributes sweets to the children on festivals. We attend our village fair every year.



Raziya

Friday is a holy day for us. On that day my mother and I do Namaz at home. My father and brother go to the mosque to participate in the Namaz. We help the poor on the festival of Ramzan. My grandmother tells us to treat and respect everybody equally. My mother teaches me Arabic whenever she is free.



John

Sunday is a holy day for us. On that day all the members of our family go to church and offer prayers. It is a holiday for mother and father. We eat food together. My mother decorates the house, reads the Bible and tells stories whenever she is free. My father says that we should not quarrel with each other and should treat everyone as a friend.



Know this

People of different religions have their own religious celebrations. But every religion stresses the importance of good behavior like respecting elders, helping the poor, showing love and affection to all and being friendly with all.

You have learnt about the families of Pavithra, Raziya and John. Now write here about the celebrations of your family.

What are the rituals held in your family daily?

How do the members of your family help each other in household work?

How do the elders want you to behave with friends and elders?

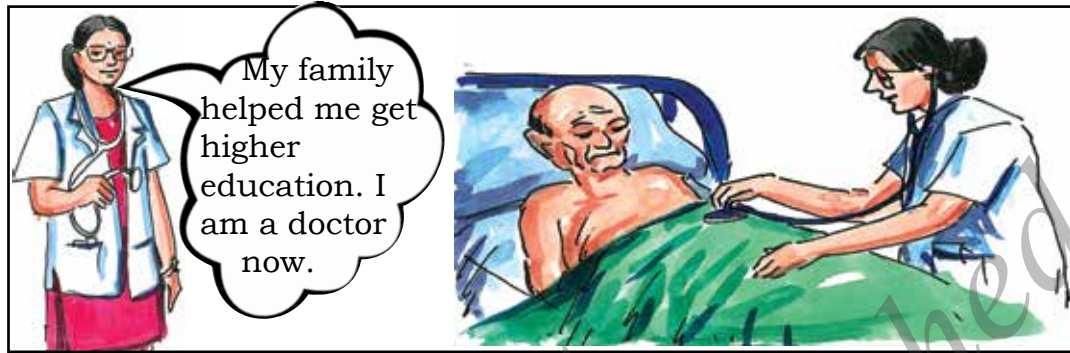
Write about the festivals celebrated in your family.



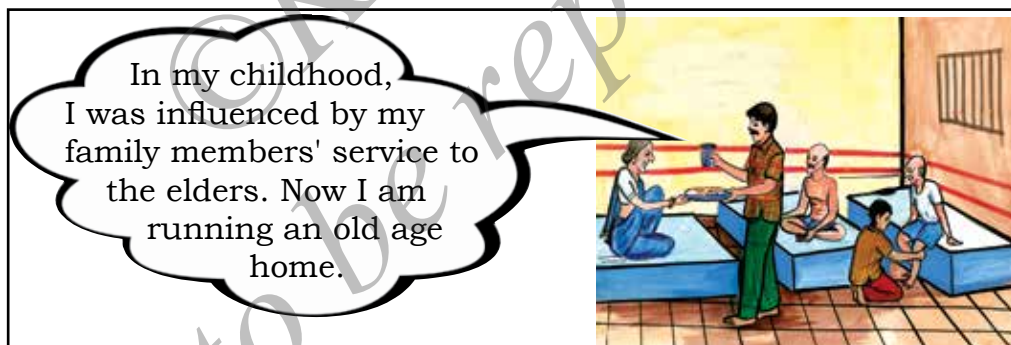
Know this

A family is a small unit having its own religion, values and cultural practices.

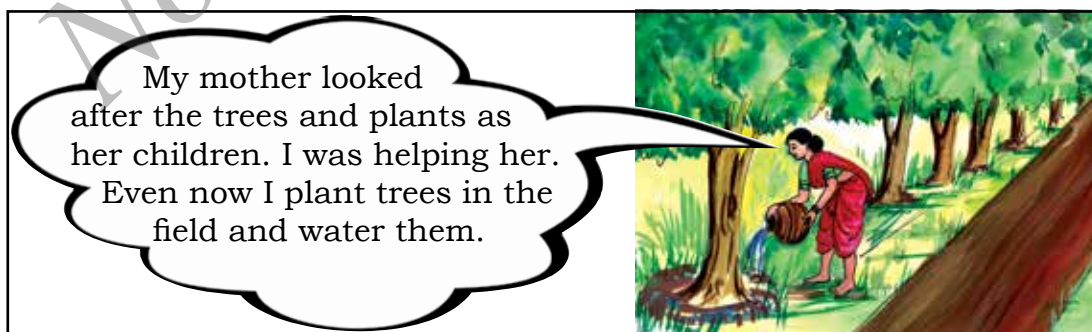
Observe this picture-conversation. Answer the questions.



How did the higher education given by the family help the society?



What inspired the man to run an old age home which is useful to the society?



How did the imitation of mother's quality help the society and environment?



Know this

There will be many changes in the society as the values of the family change - For example,

- *Women are working in all fields of life.*
- *Child marriage has been reduced.*
- *Education has guaranteed the fundamental right of every child.*

Go to your school library and read books on the life of Mahatma Gandhi. Know from your elders or teachers and answer the following questions.

Which are the qualities and values that Gandhiji learnt from his family?

How did these values help him to reform the society?

What do you want to become when you grow up? Why?

Write how it helps the society.

Read the given story carefully and write the reasons.



Know this

Story of two children

Chandranna lost his way while coming from his village. He was tired. He wanted to take rest. He saw a house there and went near it. There was a boy at the door and he shouted "Catch him, rob the valuables from him." Chandranna being afraid started running and came near another house at the end of the road. A boy who was standing at the door saw Chandranna and said, "Please come in, shall I give you a glass of water? Chandranna drank water and left the house thinking about the different behaviours of the boys.

Why did the first boy say "Catch him, rob valuable things"? Guess and write.

Whom do you think Chandranna liked between the two boys? Why?

Why did the two boys behave differently?

Do you know this?

- *Jains are the strict followers of non-violence (Ahimsa). We can see that in their food habit also. They eat vegetarian food only. They do not eat roots because, the plant will die if the roots are separated.*
- *Major General Cariyappa of Kodagu was the first chief of Armed forces of free India. He was the first person to attain this highest position among the two Indians. He learnt values like discipline, courage, dedication etc., from the family especially from his father in his childhood. It helped him to attain good position in his life.*
- *Mr B.G.L. Swamy son of the famous poet. D.V. Gundappa (DVG) was a famous botanist. Influence of his father's literary skill can be seen in his famous book **Hasiru Honnu**. It is one of the important reference books for botany students.*

LESSON –18

EACH ONE IS UNIQUE

After studying this lesson you,

- recognize the good qualities and skills of family members and friends.
- recognize that each one is unique.
- learn the methods of communication of children with special needs and respond with sensitivity to them.

'Prathibha Karanji' is going to be held in Latha's school next week. Teachers decided to conduct various competitions for the students on that day. List of the competitions was displayed on the notice board. After the school hours, Latha and her friends started discussing about their participation in the competitions.

Latha : Raju, you draw pictures well, register your name for drawing competition.

Raju : Latha, you have a melodious voice. Why don't you participate in the singing competition?



Mohammed : Rita, you make clay models. You are the best person to participate in that competition.

Rita : Mohammed acts excellently. Latha, why can't he participate in the drama competition ?

They discussed among themselves and decided about the participation in the competition.

Answer the following questions.

Which competitions did Latha and Raju decide to participate in?

What did Rita suggest that Mohammed do in the competition?

Why did Mohammed suggest clay modeling for Rita?

In which competition do you want to participate in 'Prathibha Karanji' of your school? Why?

Do you have any special talents? Write them here.

Make a list of special talents you have observed in your friends.

Name of the friends	Talents
Example: Ramu	acts well

Make a list of your family members and write the good qualities you like in them.

Name of the members	Good quality

In Karnataka there are a number of great personalities who are famous in their fields. The opportunities and encouragement they got in their childhood made them so. The achievement of four personalities is given here.



Know this

Dr. Rajkumar



Dr. Rajakumar became very famous in the Kannada film industry with his acting and singing skills. He is the first Kannadiga who got 'Dadasaheb Phalke Award'. He acted in more than 200 films. Acting was a gift from his father. He acted in the plays at the age of 8 as a child actor.

Kuppali Venkatappa Puttappa (Kuvempu)



Kuvenpu who was born at Kuppali is famous as a national poet. He wrote our Nadageethe **Jaya Bharatha Jananiya Tanujathe** which we sing everyday in our schools. He is the first Kannada poet to get the Jnanapeeta Award for his writing. He wrote 'Kindar Jogi', 'Nanna Gopala', 'Amalana Kathe' etc., for children. Kuvempu who is famous in the literary field started reading and writing stories, poems and books in his childhood. Kuvempu became a great poet by the encouragement of many people.

Kittur Rani Chennamma



Chennamma was born in a small village called Kakathi in Belagavi district. She was a brave girl. She learnt horse-riding, sword fighting and archery in her childhood. She learnt the skills of warfare in her childhood. Then she got married to Mallasarja Desai of Kitturu and became the queen of Kittur. After the death of Mallasarja, she fought bravely against the British and she has been called a brave woman.

Gangubai Hanagal



Gangubai who was born in Dharawada is very famous in India for her singing. When she was 13 years old her parents recognized her interest in music and admitted her to a music school. After learning both Hindustani and Karnatic music, she gave many music concerts in many places of India. She got many awards. She gave many music concerts over the radio. She is very famous in Hindustani music.

Many people have become great because of their special talents and skills. Read about them from the books available in your school or library.

Make a list of the persons who are famous for their special qualities and skills in your locality. Collect information about them with the help of elders and write it in the table given.

Great persons	Special talent/skill

With the help of elders or teachers know about the poets, artists, scientists, singers and social reformers of Karnataka. Get books on them from your school library and read. Write four lines about a famous person you like most. Identify the encouragement and co-operation he/she got in childhood.

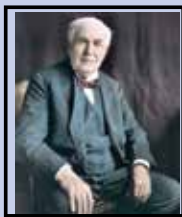
Many physically challenged people having special talent and skill achieved something and got recognition in the world. Their determination helped them in their achievement.

Here is a story of such a person.



Know this

Thomas Alva Edison

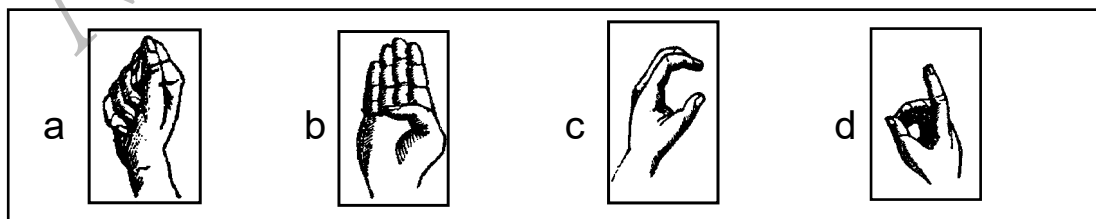


Edison was very poor in mathematics in his childhood. He could not pronounce words properly. He attended school only for three months. He had a severe fever and his hearing was affected. He became deaf. He had to leave school. Mother took extra care of him and gave him education at home. He grew into a famous scientist and invented many things. Electric bulb which glows in our houses is one of his important inventions.

What do you learn from the life of Edison? Write it here.


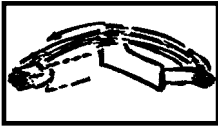


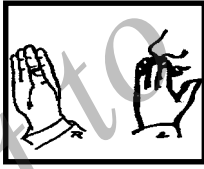
You have learnt in the previous class that the people having disorder in hearing and speaking could communicate with others through sign language. Do you know that they use sign letters also?

Observe this.



See, how letters can be conveyed using fingers.

Specific movement of hand and fingers convey specific meanings. For example, some signs and their meaning are given here. Know them.

	anger
	another one
	I am alone
	get up
	surprise



Know this

Visually challenged people use Braille script. The people having disorder of speech and hearing use sign language to communicate with other people. They are very much like us. They are ours. They need special education. We should treat them as our equals.

With the help of your elders, know about the achievements of the physically challenged persons of your locality.

Do you know this?



Sir M. Vishweshwarayya, became a great engineer by adopting skills and values from childhood. He built many dams, industries and roads etc., which are helpful to thousands of people. Government of India awarded him the highest civilian award **Bharatha Rathna** in 1955.



Mother Teresa dedicated her whole life to the service of the sick, the weak and the orphans. She got **Nobel Prize** for her service to man kind.



Kannada actor T.N. Balakrishna was deaf but his acting was amazing.

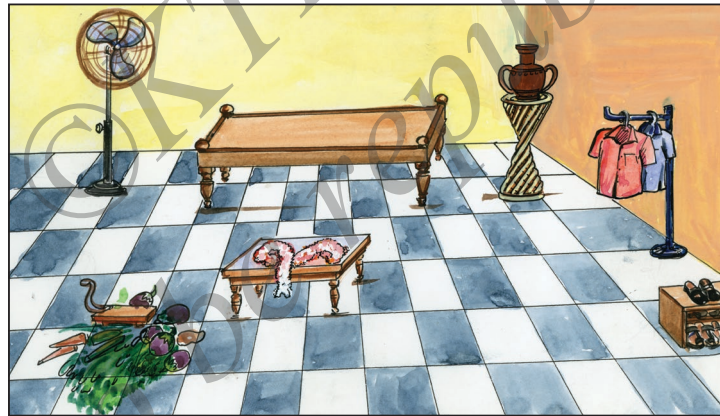
LESSON – 19

OCCUPATION - ITS IMPORTANCE

After studying this lesson you,

- *recognize the different artisans of your locality and other places.*
- *recognize the problems of working children.*

It is Somu's house. There are many articles which are used in this house everyday. What are they made of? Who make them? Know from the elders and give the answer.



Ramanahalli is a small village. The different kinds of occupation of the people of that village are shown in the picture. Which occupation do these people follow? Write in the space given.



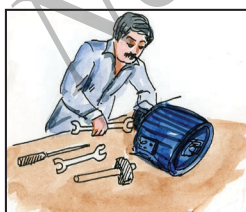


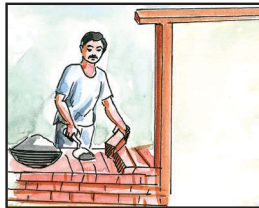
Occupations

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

The pictures of persons doing different occupations are given here. Who are they? What is their occupation. Write them in the space given.





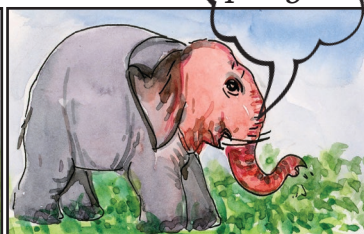


Do you find them in your locality? Put (✓) mark for those who are found in your locality. Identify the persons who are doing other than these occupations and write here.

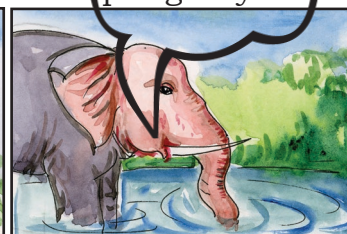
Some occupations are given below. Act like them and show their work.

- | | |
|--------------|------------|
| 1. farmer | 6. dancer |
| 2. carpenter | 7. tailor |
| 3. teacher | 8. singer |
| 4. doctor | 9. florist |
| 5. postman | 10. driver |

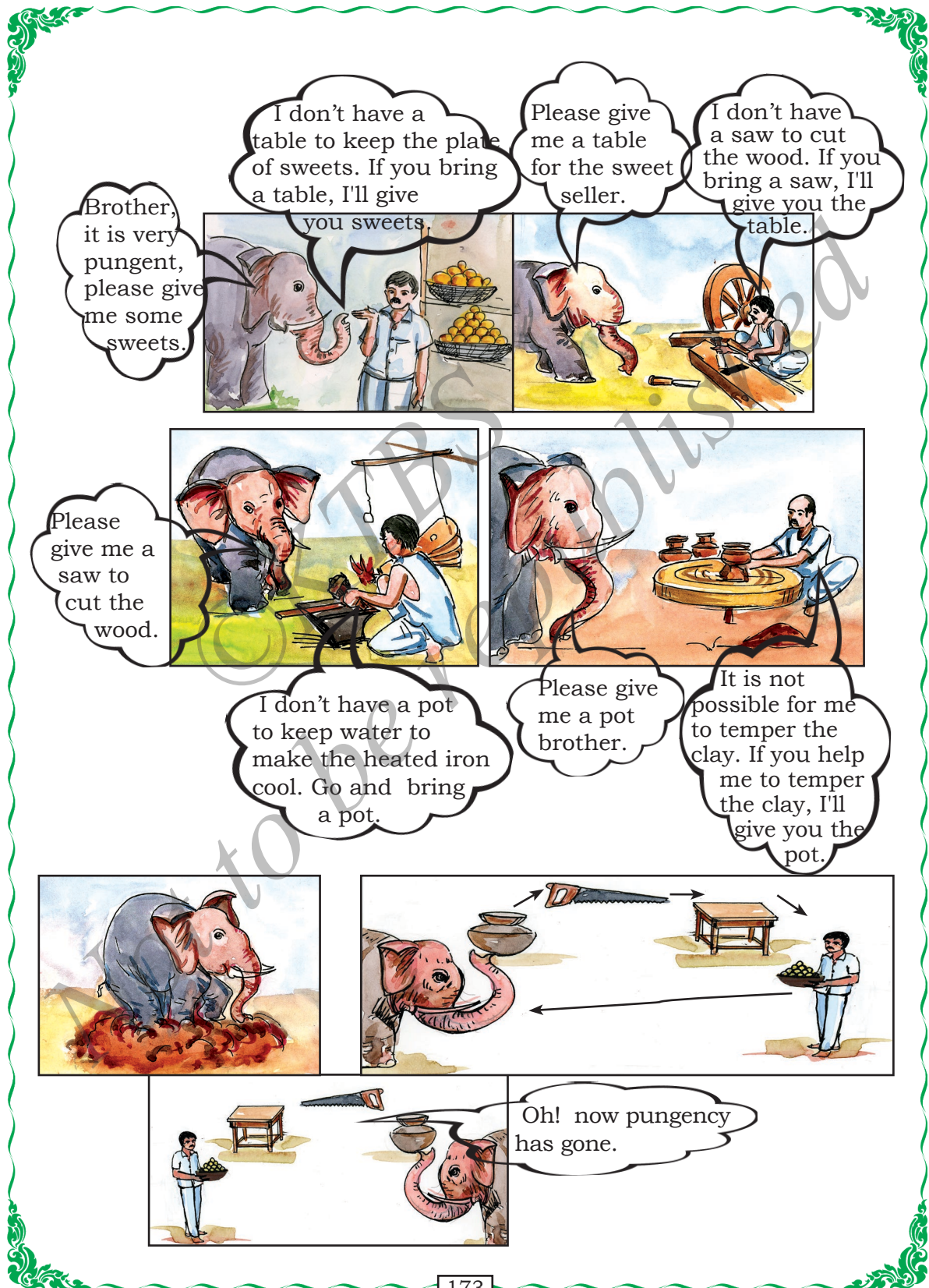
Read this picture story.



Pungent
pungent



Though I
drink so much
of water, it does
not quench
pungency.



Answer the following questions :

Which artisans did the elephant go to?

What things did the elephant get?

How did the elephant help the potter?



Know this

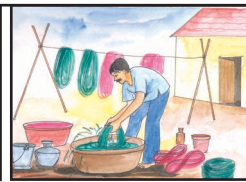
The persons following one occupation depend on the persons following other occupations.

Observe these pictures. Learn how your clothes have been made.

















Who helped the tailor stitch clothes that you wear?
Write it in the box given below the picture.



Know this

Even if we get ready-made garments from the garment shops, many people work to get them prepared.

Other than elders many children are engaged in many occupations.

You have learnt in the previous class about the problems faced by the working children.

Write any four problems that are faced by a working child.

Do you know this?

- *There are many artisans who prepare the articles from our daily needs to the preparation of decorative things of the house. Handicraft is also one among these occupations.*
- *Karnataka is famous for carvings on sandal wood among its handicrafts.*
- *Channapatna in Ramanagara district is famous for dolls and toys carved out of wood.*
- *Engaging the children below the age of 14 in work is a punishable offence. It is the responsibility of all to make the children of this age to get compulsory education.*
- *The Government of Karnataka has established residential schools and rehabilitation centres in every district for the education and development of the working children aged between 6-14 years.*

LESSON – 20

FESTIVALS - A PLEASURE

After studying this lesson you,

- participate in the school functions and national festivals.
- recognize the importance of national festivals.
- identify national symbols and respect them.

A small crane which was flying in the sky, with its mother saw the celebration in a school ground.


Amma. What is going on there?
What are the children doing?

Today is August 15th India got its independence on this day. In its memory they are celebrating Independence day. It is our national festival.



What is a national festival?

A country is also called a nation. People of the country celebrate certain days which have national importance as festivals. They are celebrated every where in the country. They are called the national festivals.


 **Know this**

Generally we use the words **nation** and **country** interchangeably but a country has a specific geographic area and comes under a specific administration.

A Country having the people of the same history, culture, desire and feeling of oneness is a nation.

Is Independence day our only national festival ?

No, dear child. We have other national festivals also. We celebrate the Republic day on _____, in the memory of reunion and restructuring of states. In the same way, we celebrate Gandhi Jayanthi on _____, the birthday of Gandhiji.



Fill in the blanks with correct dates.

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In Karnataka, we celebrate Kannada Rajyothsava on November 1st. On that day our state Karnataka was formed. People of Karnataka celebrate it with pleasure.



Know this

People celebrate the festivals which come from tradition that promote cultural oneness as state festival. In Karnataka, we celebrate Dasara as state festival.

Amma, look down! Why are the children standing like that?

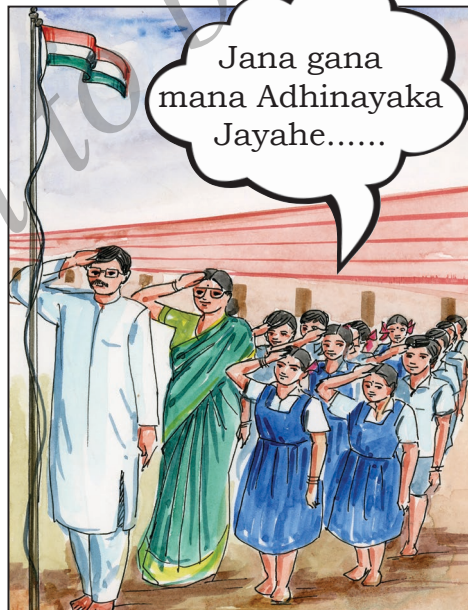
Now our national flag has been hoisted and the National Anthem is being sung. So they are standing straight and showing respect.



Amma, look at that flag flying.

Jana gana mana Adhinayaka Jayahe.....

That is our national flag.



Answer these questions.

1. What is this? How many colours are there in it?
What is there at the centre?



2. On what days will the national flag be hoisted in your school?

3. Which songs do you sing during prayer everyday in your school?

4. Which is our state song? Which is our national anthem?

state song : _____
national anthem : _____

5. How will you stand while singing the national anthem and state song? Why?



Child, you have understood our national flag and national anthem. Look at the pillar there. See the four lions on it. It is our national emblem. It is also called 'Simha Bhodige'.



It appears that there are three lions standing on the pillar.



There are actually four lions. They are standing back to back. So the fourth lion is hidden. We cannot see it. Below the lion there is a horse, a wheel and a bull. 'Sathya Meva Jayathe' is written below them.

Where have you seen the national emblem? Write here.

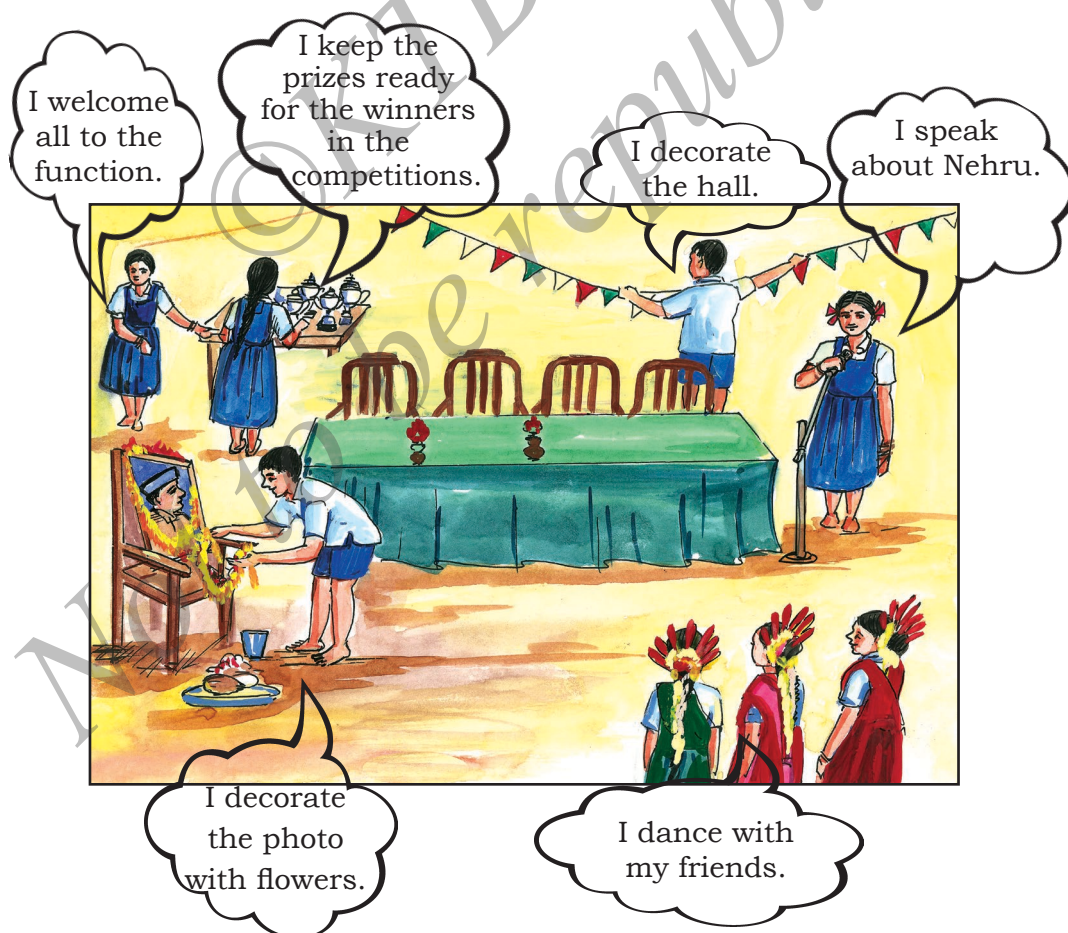


Know this

- **National Emblem, National Flag and National Anthem** are our important national symbols.
- National symbols help to promote patriotism, national integration and harmony among the people.

Make a list of National festivals which are celebrated in your school with dates. Write four lines about one of the national festivals.





There is a school in the picture. The children are celebrating children's day. Observe.



Make a list of the pieces of work which are being done by the children in the picture.

Write four lines about the celebration of children's day in your school and write what you do on that day.

Do you know this?

<ul style="list-style-type: none"> The colours of Karnataka flag - yellow and red 	
<ul style="list-style-type: none"> Our state animal - elephant 	
<ul style="list-style-type: none"> Our state flower - lotus 	
<ul style="list-style-type: none"> Our state tree - sandalwood tree 	

<ul style="list-style-type: none"> Our state bird - neelakantha (blue jay) 	
<ul style="list-style-type: none"> Our national animal - tiger 	
<ul style="list-style-type: none"> Our national flower - lotus 	
<ul style="list-style-type: none"> Our national bird - peacock 	
<ul style="list-style-type: none"> Our national tree - banyan tree 	
<ul style="list-style-type: none"> Our national game - hockey 	
<ul style="list-style-type: none"> Our national fruit - mango 	

LESSON – 21

KHO

After studying this lesson you,

- *get introduced to the games and rules.*
- *recognize the development of social harmony by games.*
- *explain the entertainment got from fairs and circuses.*

You have learnt about indoor games and outdoor games in the previous classes. You might have played many games under the guidance of your teacher in the school.

Answer the following and know which games you are familiar with.

1. A game which is played using tamarind seeds.

2. A game which is played with one leg folded.

3. A game which is played using a ball and bat.

4. A game which is played using dice.

5. A game which is played using cowrie shells.

6. A game which is played in water.

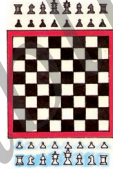
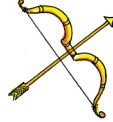
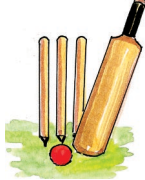



7. A game which is played in groups.

8. A game which is played using a ball with hands.

9. Special game of your district.

10. A game that you have seen in a fair.

The names of some games and the pictures of materials used in those games are given here. Match them.

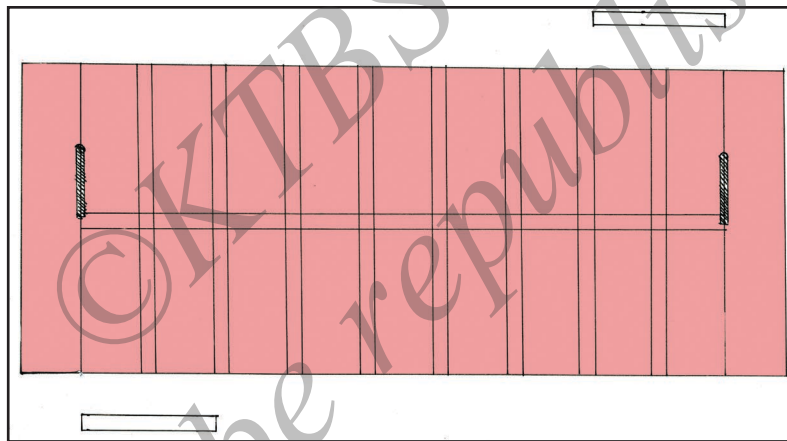
Hockey	
Cricket	
Badminton	
Archery	
Carrom	
Chess	

Do you know these sports persons? In which games are they famous? Write them in the space given.

 <p>Rahul Dravid</p>	_____	 <p>Sachin Tendulkar</p>	_____
 <p>Prakash Padukone</p>	_____	 <p>P.T. Usha</p>	_____
 <p>Malathi Holla</p>	_____	 <p>Abhinava Bindra</p>	_____
 <p>Dhanaraj Pillai</p>	_____	 <p>Vishwanathan Anand</p>	_____
 <p>Sania Mirza</p>	_____	 <p>Mamatha Poojari</p>	_____

Write any four outdoor games that you play with your friends in the school.

Students of 4th standard were brimming with joy. They were waiting for the teacher. The teacher told them that she would take them to the ground to play kho - kho. The teacher took them to the field and showed the kho - kho field.



The children went round the kho - kho field. After they came back the teacher asked these questions. See the kho-kho field given in the picture and write the answers to the questions asked by the teacher.

1. What is the shape of the kho - kho field?

2. How many poles are there in the kho - kho field?

3. How many squares are there between two poles?

4. How many lines have been drawn between the poles?

Teacher formed two teams of 12 members each. One is the running team and the other is the chasing or touching team.

Teacher explained to them the rules of the game and how it has to be played.

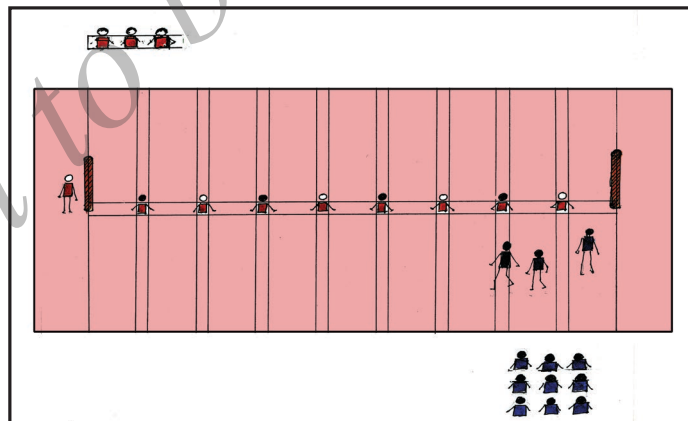


Know this

Rules

- Kho - Kho match has two innings. Each inning has running and touching rounds. Each round will be of seven minute duration.
- A Kho - Kho team consists of 12 players. Out of them 9 are players and 3 are extra players.

The students began to play with the guidance of the teacher. Look at the picture and write the way of playing the game.



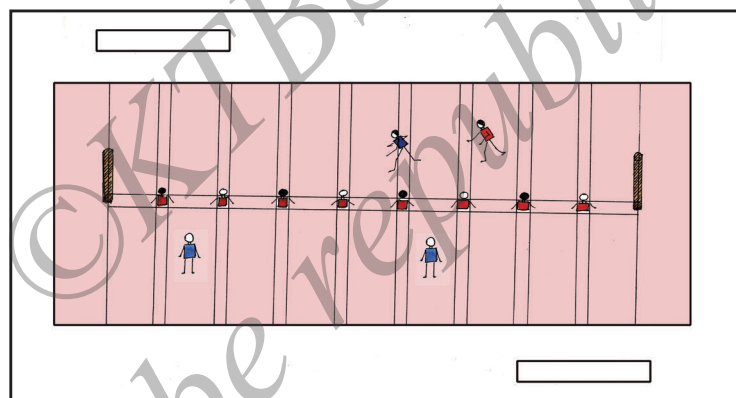
How many players are sitting inside the kho-kho field?

How many players are standing at the poles?

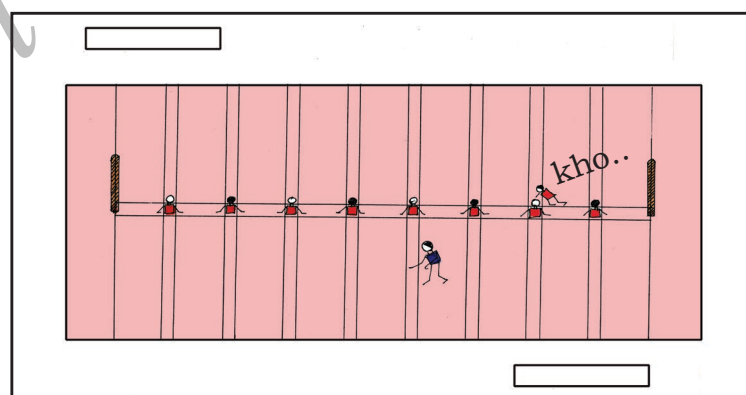
How are the players sitting in the field?

How many players are entering the field?

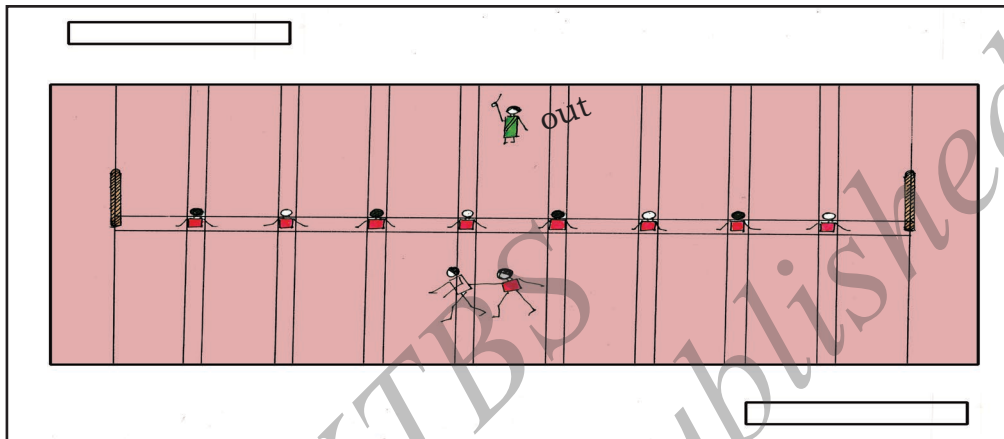
How many groups are sitting near the field? How many members does each group have?



What is going on in this picture?

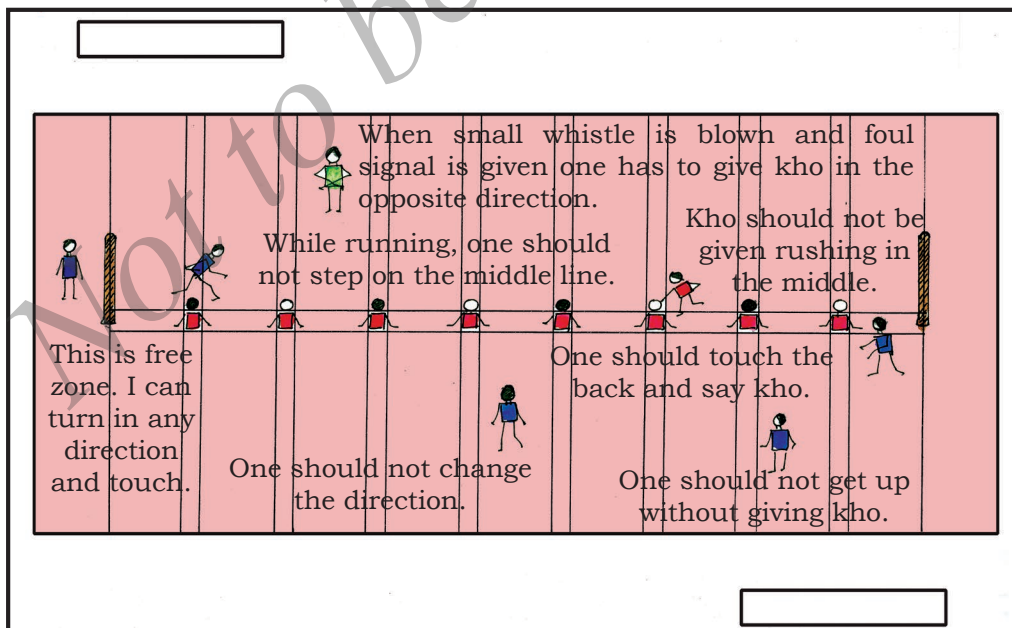


What is the catcher doing? What is he uttering?



Why did the teacher say out?

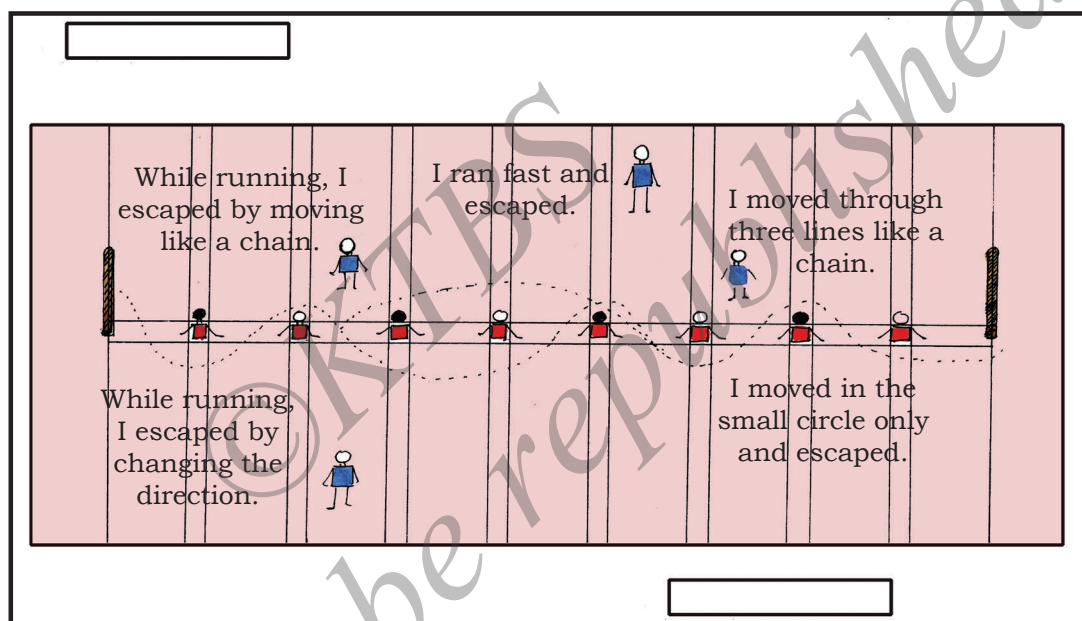
After the game, the teacher once again taught the children the rules of the game with the help of pictures.



Children understood that if they did not follow or violated the rules it would be considered foul.

The other team discussed how they had played the game.

The runners explained how they had escaped being touched.



After the game, the teacher and the students went to the class room.

Play and enjoy

With the help of your teacher and friends prepare a kho - kho field and play the game with your friends.

Write the four rules of the game of kho - kho.

1. _____
2. _____
3. _____
4. _____

You have learnt the rules of the game kho - kho.

In the same way try to know the rules of other games.
Write the important rules of a game that you like or play.

What are the uses of group games? Discuss with your friends and write.



Know this

As the group games cultivate co-operation, mutual understanding, team spirit, obedience to rules, friendship, determination to reach the goal etc., they develop social - relations and harmony.

We get entertainment by playing games. In the same way circus and fairs also provide us entertainment.

You already know about the fair. Here is the picture of a circus. Observe.



Make a list of distinctive features you have observed in the circus.

Write a few sentences about a circus show that you have seen or heard of.

With the help of your elders write a few sentences about the famous fair of your district.



Know this

The number of famous circus companies have been decreasing. The main reasons are,

- The animal welfare organizations protest against the use of animals in the circus for entertainment and the training given to the animals by using violence.
- People have lost interest in circus, as they are easily getting entertainment from T.V, computer and mobile etc.
- Lack of skilled artistes and the encouragement to their art.
- Maintenance of required facilities to the artistes of the circus is very expensive.

Do you know this?

- Prakash Padukone is the youngest badminton player to win the National championship.
- Famous Kho - Kho player Usha Anantharaman of Karnataka is the first player to win the Rani Lakshmibai Award.
- Youth services and sports department has been managing many sports schools and sports hostels all over the state.
- In the year 1981, a fire accident took place at Venus Circus at Bengaluru. 92 people were burnt to death and 300 people were wounded in this fire accident.
- Exhibition of animals and their astonishing feats were of great attraction in the olden days. But efforts have been going on to ban the use of animals in circus as violent methods are used to train the animals.

The players who have won medals for India in Olympic game - 2012.



Gagan Narang



Vijay Kumar



Susheel Kumar



Yogeshwar Dutt



Mary Kom



Gireesh



Saina Nehwal

- Write the names of the sports that they have participated in the box given.
- Collect the information about the players who have won medals for India in Olympic game - 2016.

(Get the help of teachers / elders)

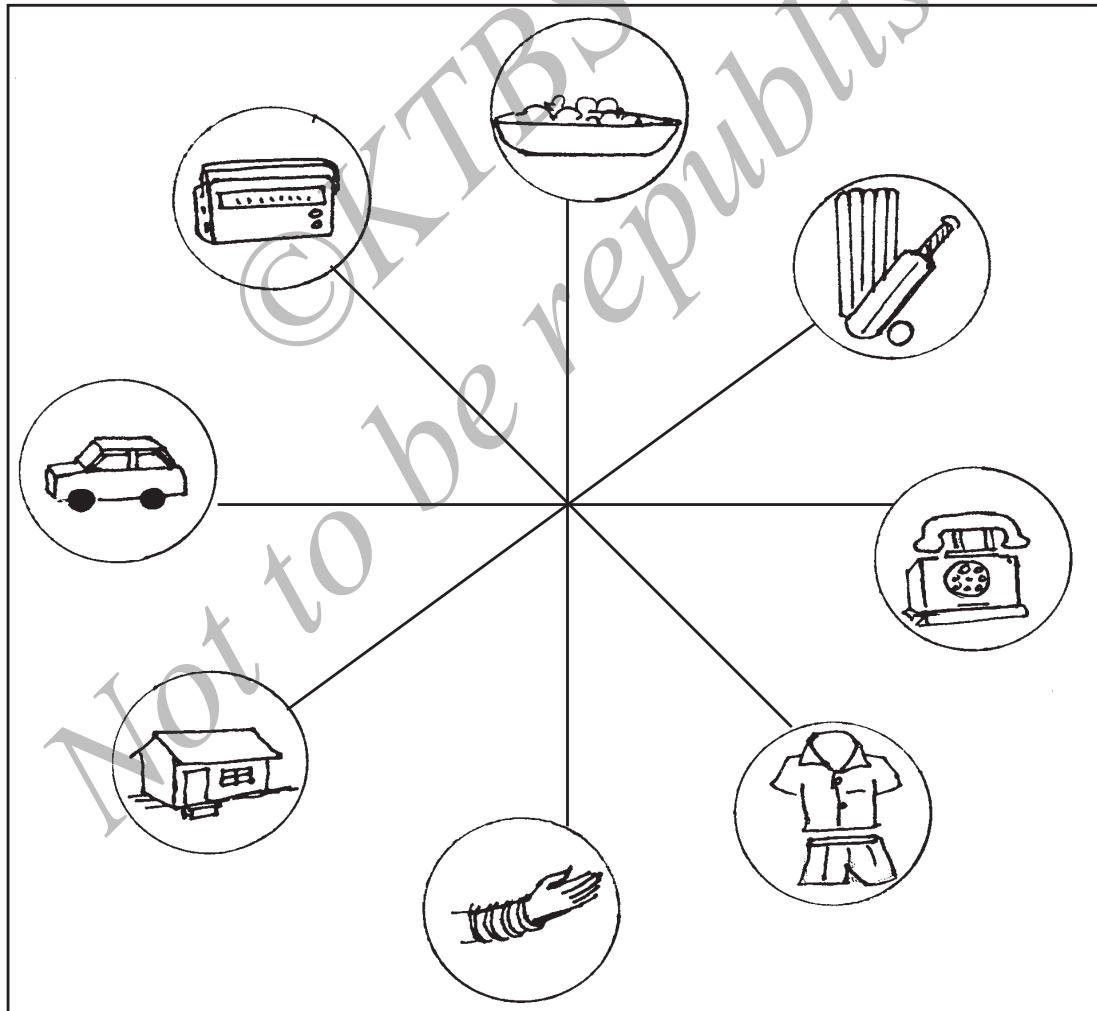
LESSON – 22

FACILITIES - IMPROVEMENT

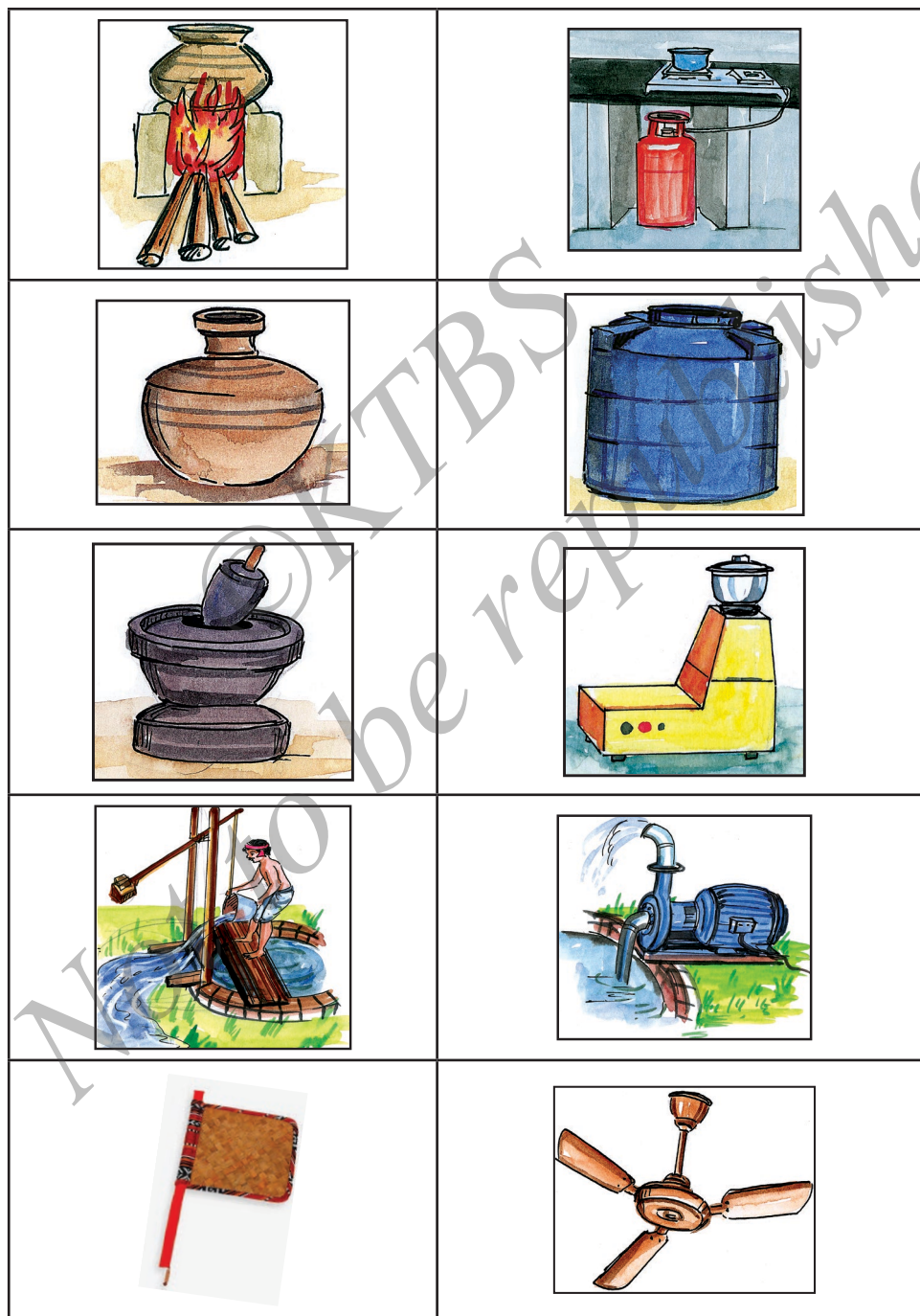
After studying this lesson you,

- explain with examples how natural resources and creativity of man changed the life style of man .


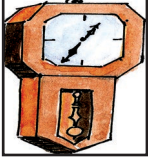


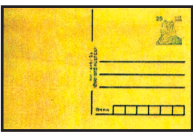


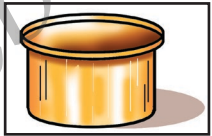

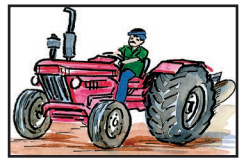




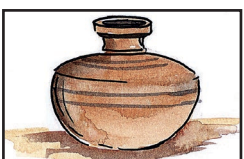

Colour the things in the picture which are very essential for you to live.



Observe the following pictures. Find out the differences between the necessary things used by the human beings in olden days and now.



Match the following as the model given.

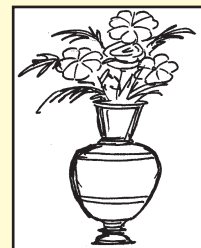
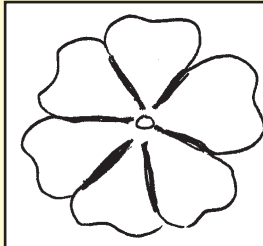
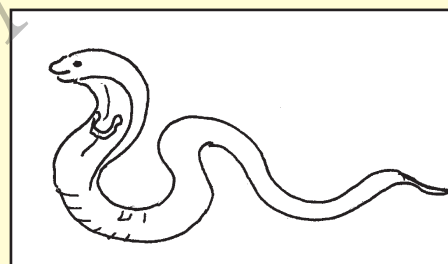
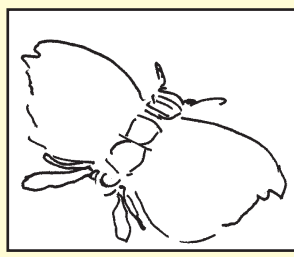
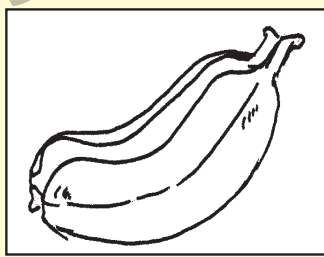
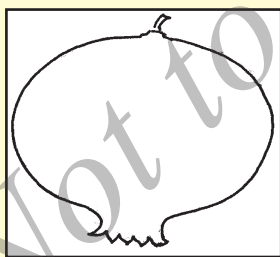
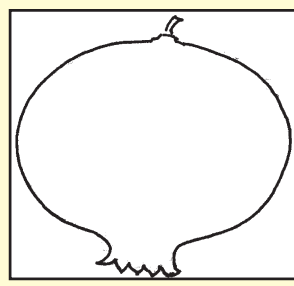
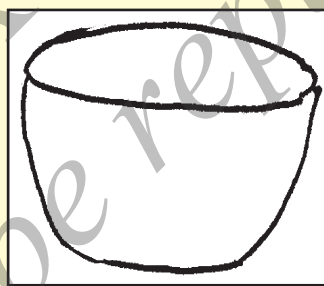
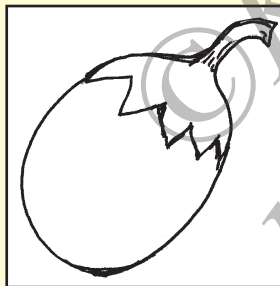
		
		
		
		
		
		
		
		

**Know this**

With the help of science and technologies, man has learnt to use many natural resources. For example, machines, vessels, metals used to construct a house; Use of petrol or diesel in tractors, lorries, buses, water pumps etc., manufacture of paper by using the wood pulp etc. With this, by using their creativity they learn to prepare different kinds of machinery, clothes, vessels, paper and different kinds of products. In this way, people are changing their life to be easy by using natural resources and their creativity.

Do it yourself

1. With the help of your elders, make different models with clay (mud) as shown in the picture and colour them.



2. With the help of your elders, prepare the models you know by using different grains, beads, colour papers, pieces of cloth and stick here.

(pictures, greetings, decorative things)

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3. Draw the pictures of different types of pots you have seen. Suggest where we can use them. Write your suggestions below the picture.

Do you know this?

- It is said that Charles Babbage, a British Mathematician made the first computer in 1837. So, many people called him **The Father of Computer**.
- Metals are hard and glittering. We can give different shapes to them. It is very easy to clean them. It is not an exaggeration to say that there is no work without metals.
- It is said that the **Statue of Liberty** in America is made of 3,50,000 kg of copper.
- The use of mud pots for cooking has been decreasing. By using the creativity, flower pots, flower vases etc., are prepared and used to decorate the houses. Many improvements have taken place in the methods of pot making also.

LESSON – 23

DRESS - DESIGN

After studying this lesson you,

- discuss the variety in dress, colours used in the manufacture of clothes and designs.
- know the different types of dresses and clothes used in different districts.
- collect the pieces of cloth and prepare the models of dress.

Food for satisfying hunger,

Tent for protection,

Dress protects our body

Light clothes for summer,

Water proof clothes for rainy season,

Woollen clothes for winter season.

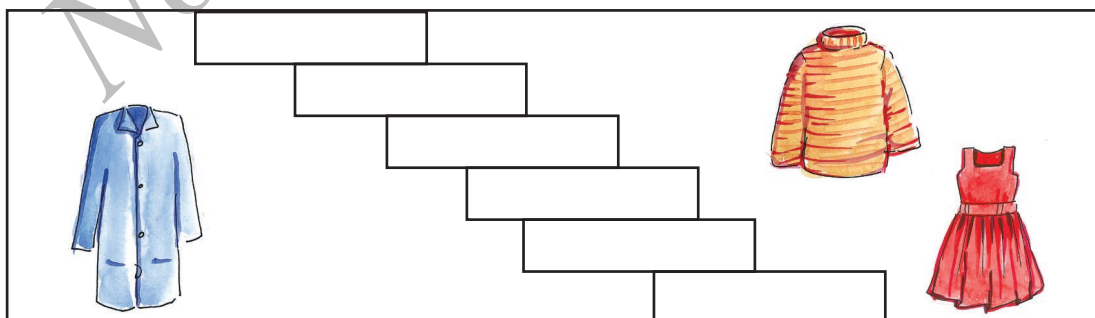
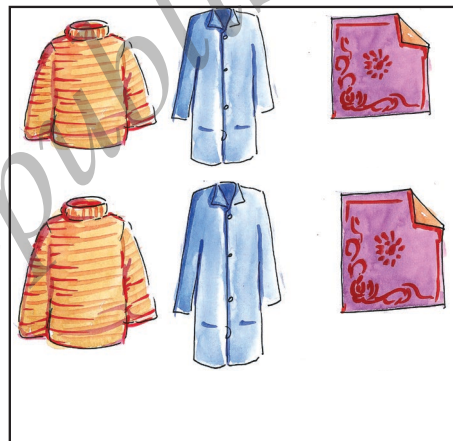
Variety of dresses of different colours,

Colourful dress of different yarns,

Dress is essential for every one.

You know that dress is essential for us.

Write the names of different dresses you wear.



Do it yourself

Stick the pieces of cloth prepared from different yarn.
Name the type of yarn.

Who am I?

I am made of wool. All wear me during winter.

Everyone likes clothes made of me in summer. Farmers grow me in the fields.

Do it yourself

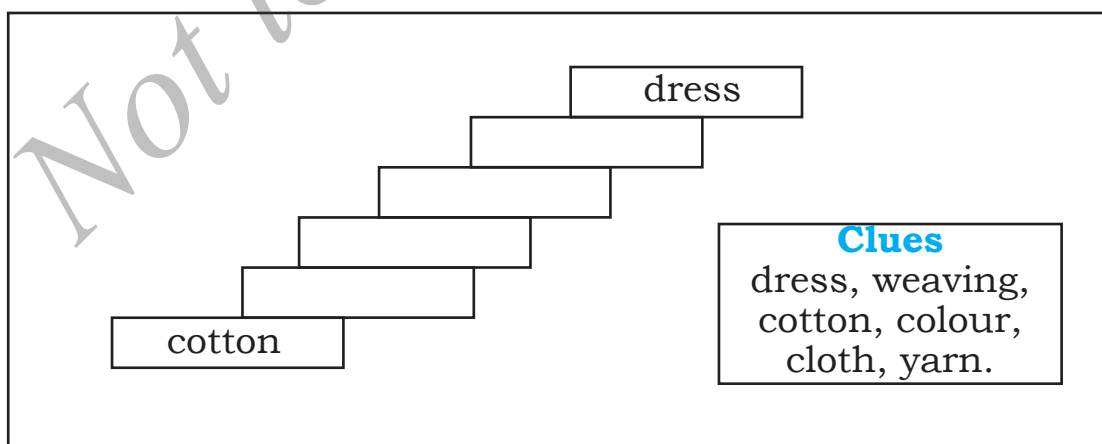
1. By using different pieces of cloth prepare small models of dresses and stick them below.

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2. Collect pictures of different kinds of dresses and stick them below.



Identify the different steps of preparing your dress and write them here. Make use of the clues given.



Put (✓) mark in the picture of the dresses which are generally used by the people of your locality.

	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Discuss with your friends and teachers in your school, the dresses used by the people in different parts of our state.

Write the names of the dresses which are used in different seasons.

Rainy season : _____

Winter season : _____

Summer season : _____

Give three examples for the dresses which are stitched.

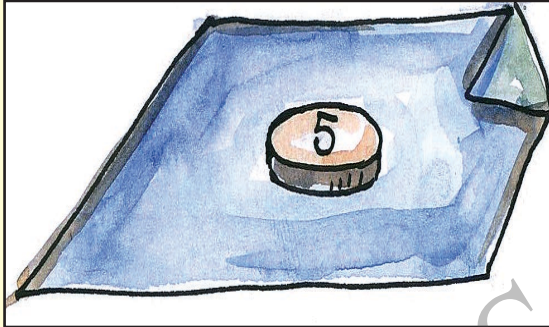
Give three examples for the dresses which are not stitched.

Do it yourself

1. Prepare colours by using easily available things such as leaves, vegetables, flowers, nuts etc. (hibiscus leaf, flower, beetroot, turmeric etc)
2. Colour a white piece of cloth. You may use the pieces of lady's finger, radish etc., for design.



3. Tightly wrap a coin in a piece of cloth and dip it in coloured water. Open it after it gets dried and observe.



4. Put four to five colours into water and dip a piece of white cloth or a piece of paper in it and immediately remove it. Carefully hang it and observe after it gets dried.



5. Make impressions on a white paper dipping your thumb in different colours.



6. Take cotton bulbs, dip them in different colours and make different picture patterns.



Do you know this?

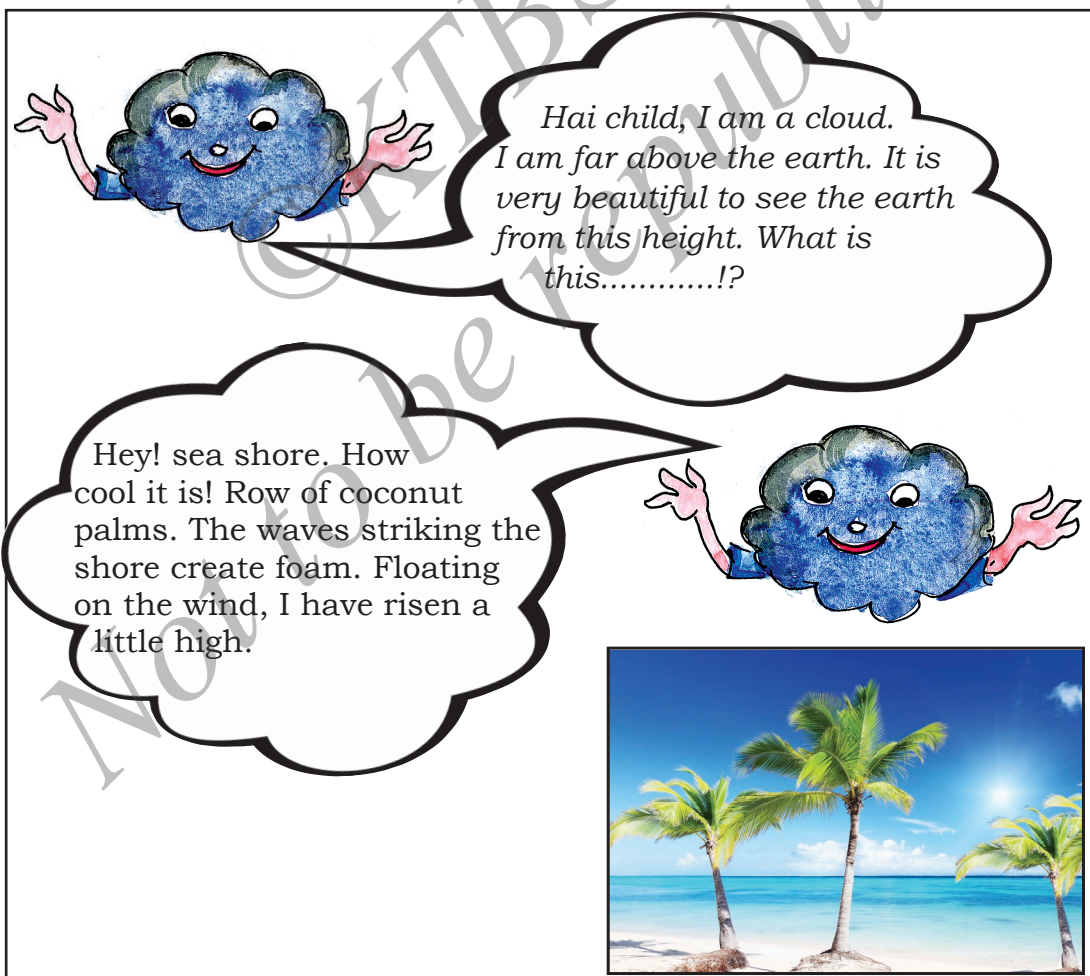
- In the beginning, clothes were made of hide, wool, leaves and grass.
- There are different yarns from plant yarns to silk and nylon yarns. From these yarns different types of clothes are prepared. The clothes are coloured using the colours made of plants and chemicals. It is an example for the creativity of man.
- Karnataka is the state which produces most of the silk in India. Around 70% of the silk produced in India is from Karnataka. Most of the silk is produced in Bengaluru rural district, Ramanagara district and Mysuru district.
- Silk is produced out of a liquid produced in the body of the silk worm, an insect.
- The sarees manufactured in **Ilakal** in Bagalakote district are famous all over the world.
- Traditional dress of Karnataka State
 - Dress of men - Dhoti, shirt, towel
 - Dress of women - Saree, blouse or Long skirt, veil, blouse.

LESSON – 24

JOURNEY OF THE CLOUD

After studying this lesson you,

- appreciate that the earth, as a shelter of all living beings has air, soil and water which are essential to live.
- recognize the importance of air and soil.
- recognize the changes that occur during different seasons.







I am floating higher and higher. The place where I am now is called a plateau. This region is broad and even. It is a little bit above the sea level.




Oh! I have risen very high. See the mountain range. It is nearly 600 meters high. Child, see the river flowing down the hill. Look down, the flowing river joins a valley. How small it looks!



The narrow region between two hills is the valley. Sometimes we can see the rivers flowing here.

Oh! Here is a waterfall also.


A waterfall forms when the water falls from the top of the hill to great depth. Oh! Look here. What a beautiful scene! Tell me the name of a waterfall that you know.



Oh! How strong is the wind. I'm now rising up again from hills, valley and waterfalls. Alas! The blow of the wind is increasing.

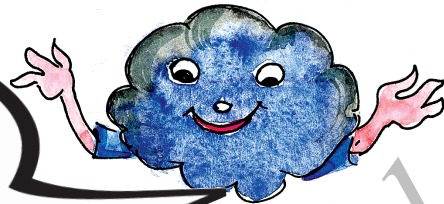
Oh God! I'm near a mountain.

What are you thinking? Do you want to know what a mountain is? That is a very high hill. It is more than thousand meters above the sea level. At some places it is covered with snow.



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The mountain covered with snow which is famous all over the world is to the north of our country. Do you know its name? You already know about hills and mountains. Will you write the difference between hills and mountains in the space given.



Hills	Mountains



It is getting very cold as the wind rises up. The water vapour that I carry is turned into water drops. Oh! Now I'll fall as rain. Run home before getting wet.

You have read the journey of the cloud, haven't you? The sea shores, deserts, plains, plateaus, hills and mountains are the beautiful features of the earth. Some of them may be in your surroundings. Identify them.

Answer the following (with the help of the cloud).

1. How high are the hills from the sea level?

2. What is the narrow land found between two mountains called?

3. Name three famous waterfalls of our state.
(Get the help of teachers/elders)

4. Where is fertile soil found?

Human beings, animals, birds, insects and varieties of plants are living in different places of the earth that you know. Air, water and soil are important for the life on earth.

Air

You know that air is necessary for breathing.

Observe the picture. Factories and vehicles are letting out smoke. This smoke enters the air and pollutes it. You know that breathing of this polluted air causes diseases.



How to prevent air pollution? Write it in four lines.
(With the help of your teachers /elders)

Water

Water is very essential for all living beings. You already know about water and its importance.

Observe this picture. Dirty water and drain water are joining the source of water. Some people are washing their vehicles in water. Some people are washing clothes and utensils. So water is polluted. The polluted water is not suitable for use.



Write the steps that you can take to prevent pollution of water.

Soil

Soil is very important for living beings. Soil is necessary for the growth of plants, to build houses and to make bricks etc.





Now-a-days the soil is being polluted due to the over use of plastics, chemical fertilizers etc.

How do you prevent soil pollution? Write two sentences.

Prevent air, water and soil from being polluted. Know about the steps to protect them. Follow these steps and protect these valuable resources. Because these are very essential for us and other living beings to live.

Weather and Climate

Observe the following pictures. Match them with correct sentences.

A	B
	<p>Wind is blowing.</p>
	<p>It is very hot.</p>
	<p>It is cloudy.</p>
	<p>It is raining.</p>

The situations given above in the pictures show the changes that occur in a day. This is called weather. Remember that you have learnt about weather in your previous class.



Know this

The weather is changing during the day or day by day. The weather of a place is observed for a period of thirty to thirty five years. The sum of this long time weather is called Climate.

There is a relationship between climate and life of the people. Dress of the people, the construction of houses, industries, and crops depend upon the climate of that particular place. The houses with sloppy roof can be seen in the places of heavy rainfall. The crops such as jowar, ragi etc., are grown in very hot places with scanty rainfall.

Write the difference between weather and climate.

Weather	Climate

You have summer vacations in April and May. How will the weather condition be in your place at that time? After summer holidays, the school re-opens. How will the weather be during that time? Seasons occur due to the changes in weather conditions. Generally there are three seasons.

- 1) Summer season
- 2) Rainy season
- 3) Winter season

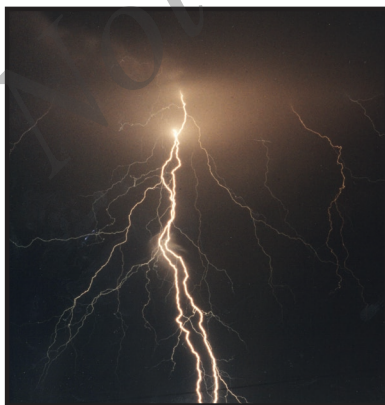
Here some situations are given. Write which season they belong to :

Sl. No.	Situations	Seasons
1.	Bathing in cold water.	
2.	Wearing woollen clothes and to feel warm.	
3.	Sitting under the fan.	
4.	Moving about wearing rain coats.	
5.	Trees shedding leaves.	
6.	Using an umbrella.	

There is heat in summer season. There is a change in the clothes you wear and food you eat. Observe.

What type of food do you eat in summer season?

What type of clothes do you wear in summer season?



There is water everywhere in rainy season. People walk holding umbrellas. Observe the climatic conditions in rainy season. Sometimes you see lightening in the sky and immediately after a few seconds you hear the sound of thunder.

Observe this picture and write its name here.



When does a rainbow occur?

How many colours can you identify in the rainbow?
Write their names here.

The season which is very cold, is called winter season.
In this season people wear warm clothes. Trees shed their
leaves in winter season.

Make a list of food items eaten during winter.

Summer season, rainy season and winter season cause many changes in the life of people. They influence the dress, costume, crops and food habits.

Do you know this?

- The Himalayan mountain range is 2400 km long and is covered with snow.
- Valleys will be **V** or **U** shaped.
- The plateau of Tibet is called the roof of the world.
- The soil that is deposited by the rivers is called alluvial soil.
- The **Thar desert** is on the west of India.
- Mullayanagiri is the highest peak in Karnataka. Its height is about 1925 m from the sea level.
- Inhaling polluted air causes diseases like tuberculosis and asthma.
- Pre-monsoon and post-monsoon winds bring rain to India.
- More than half of the land surface is plain land.
- Kashmir is a valley region in the North India.
- There are seven colours in the rainbow. But these seven colours are not visible clearly.
- VIBGYOR is the English word used to remember the colours in the rainbow. These letters represent the beginning letter of the colours.

V	-	Violet
I	-	Indigo
B	-	Blue
G	-	Green
Y	-	Yellow
O	-	Orange
R	-	Red

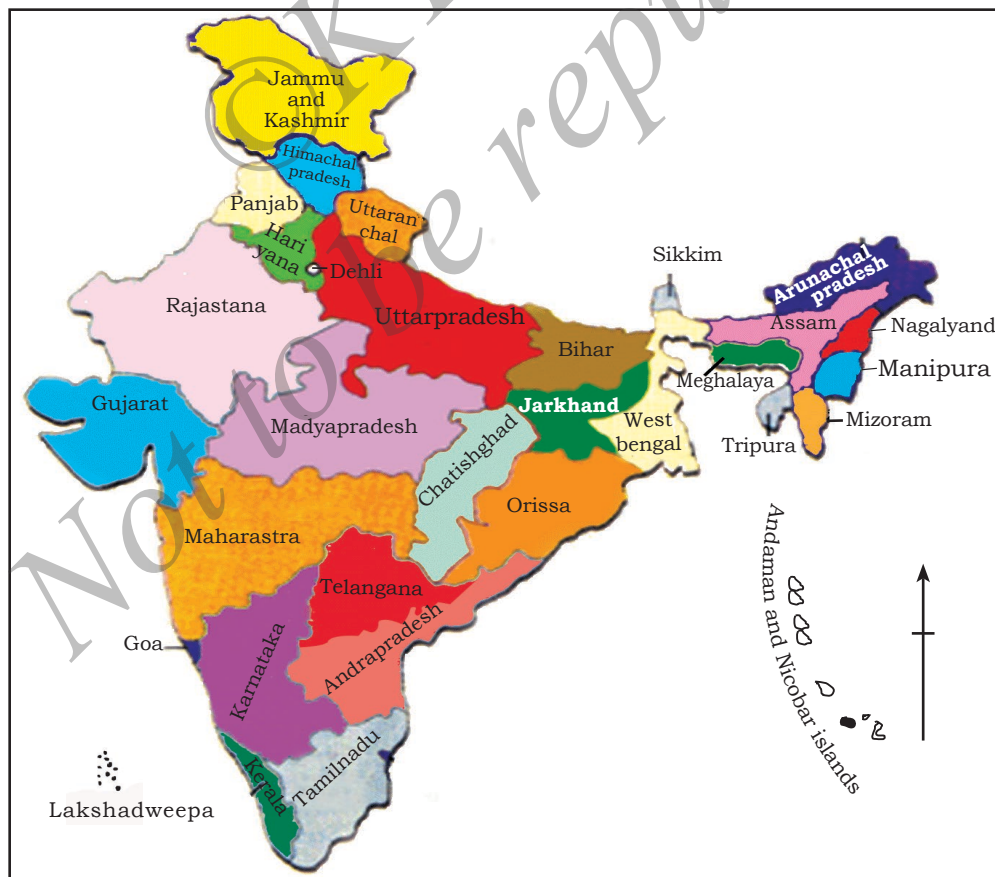
LESSON – 25

OUR STATE - OUR PRIDE

After studying this lesson you,

- locate Karnataka on the map of India and get an introduction to the physical divisions of Karnataka state.
- recognize the historical and famous natural resorts of our state and develop an attitude to protect them by knowing their importance.

You know that many districts together form a state. A country is an area which has such states together. India is our country. Study the map given below. This is the map of India.

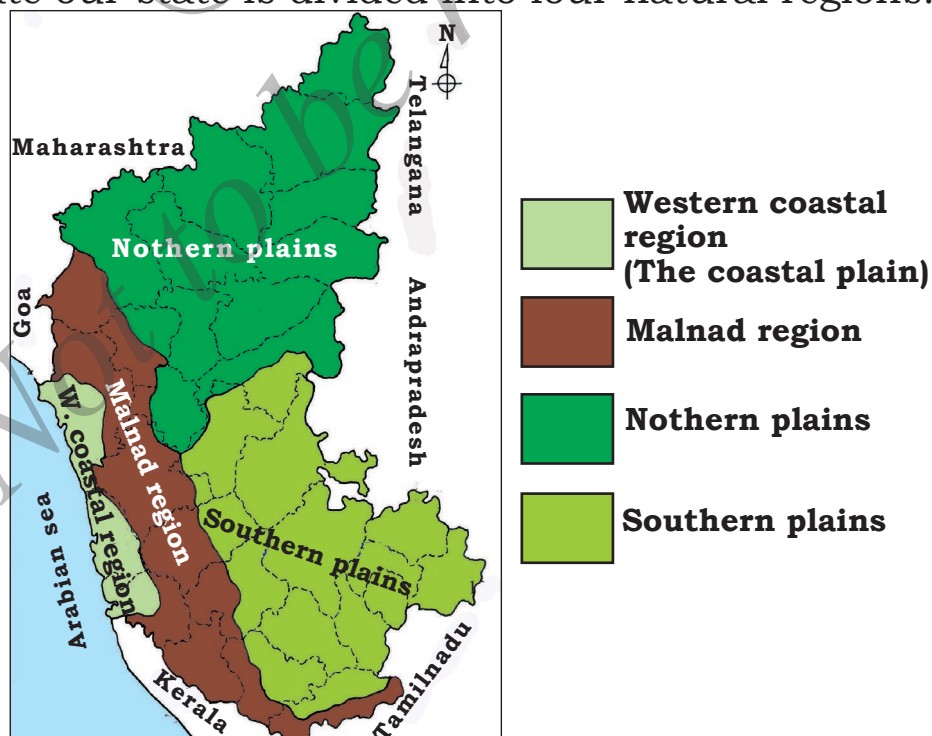


Karnataka is our state. There are 30 districts in our state. You already know about this. In the previous class you have learnt about your district and surrounding districts.

Ramesh has written the neighbouring states of Karnataka and their directions. Observe the map and write the right answer, if they are wrong.

East	-	Maharashtra	:	_____
West	-	Andrapradesh and Telangana	:	_____
South	-	Kerala and Tamilnadu	:	_____
North	-	Goa	:	_____

Each state has special physical features. For example; hills, coastal area etc. You have already learnt different physical features. On the basis of physical features and climate our state is divided into four natural regions.



Write the names of districts that come under natural regions.

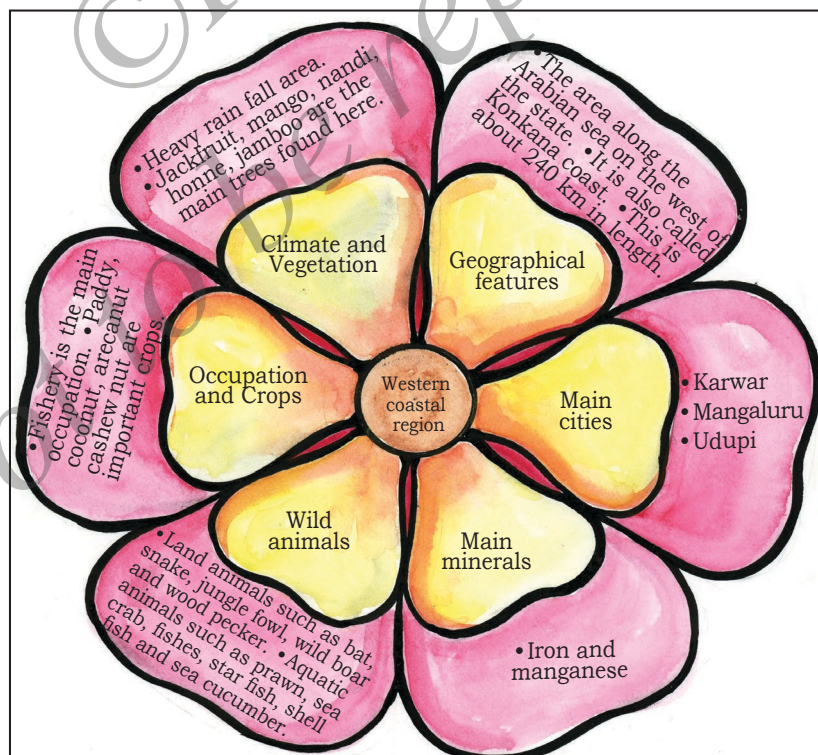
1. The districts of western coastal region:

2. The districts of malnad region :

3. The districts of northern plain region :

4. The districts of southern plain region :

Observe the picture. Know about the western coastal region.



Answer the following.

What is the other name of western coastal region?

Which is the main occupation of the people of western coastal region?

Match the following.**A**

Jungle fowl

Shark

arecanut

iron

Karwar

B

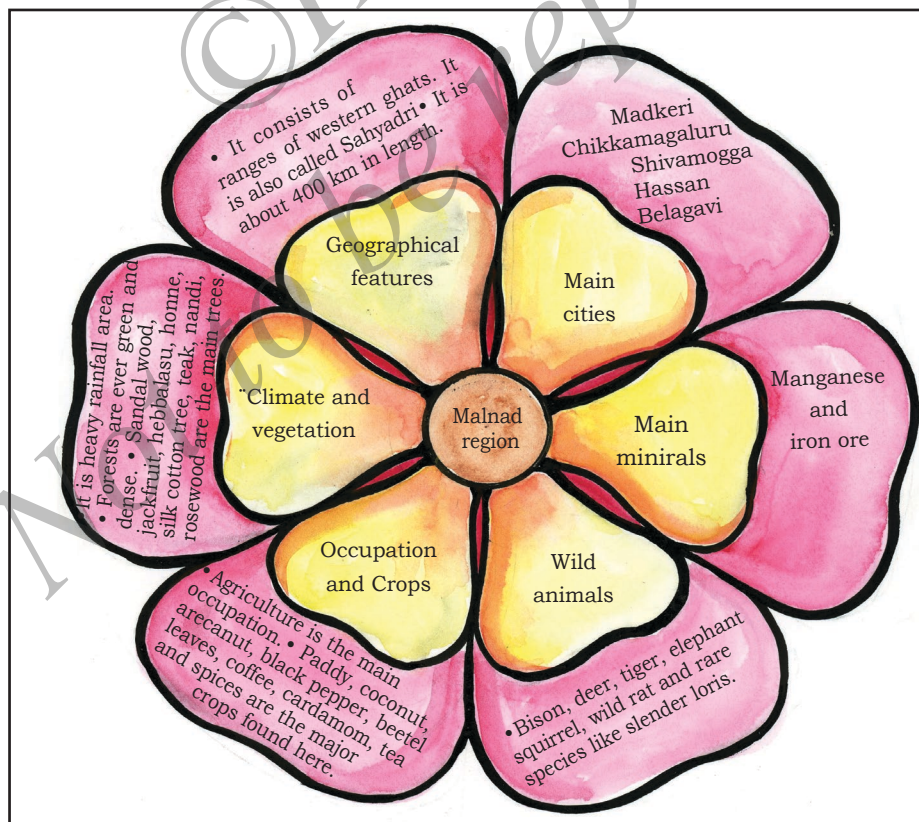
main city

mineral

bird

crop

aquatic animal

Observe the picture and know about malnad region.

**You have learnt about malnad region, haven't you?
Match the following.**

A

Sahyadri
Manganese
Sandal wood
Sleder loris

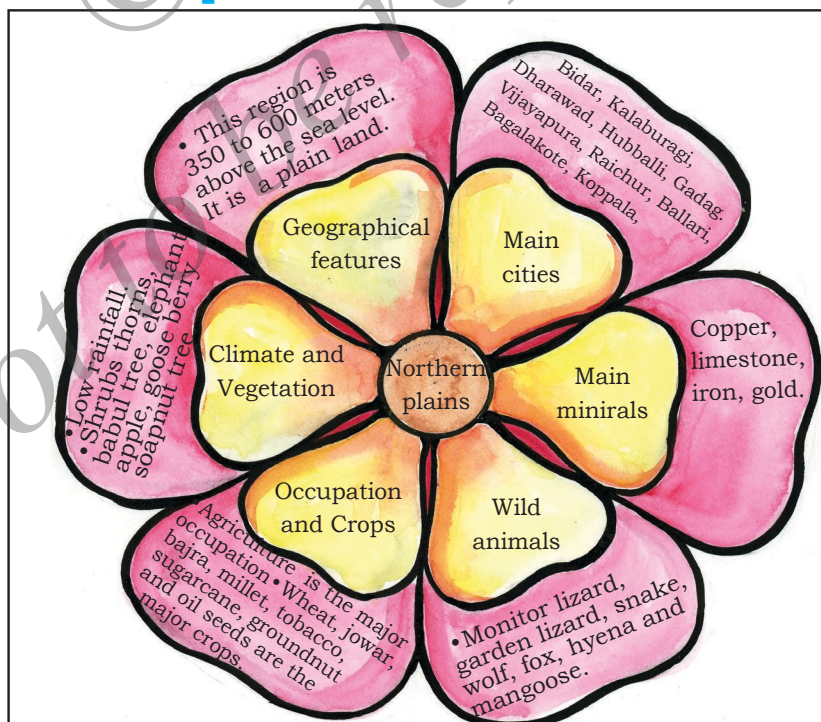
B

rare animal
state tree
mineral
mountain range

Make a list of the important things in relation to malnad region.

Trees	Crops	Cities

The other natural region of Karnataka is northern region. Observe the picture given below and know about northern plain.



Answer the following.

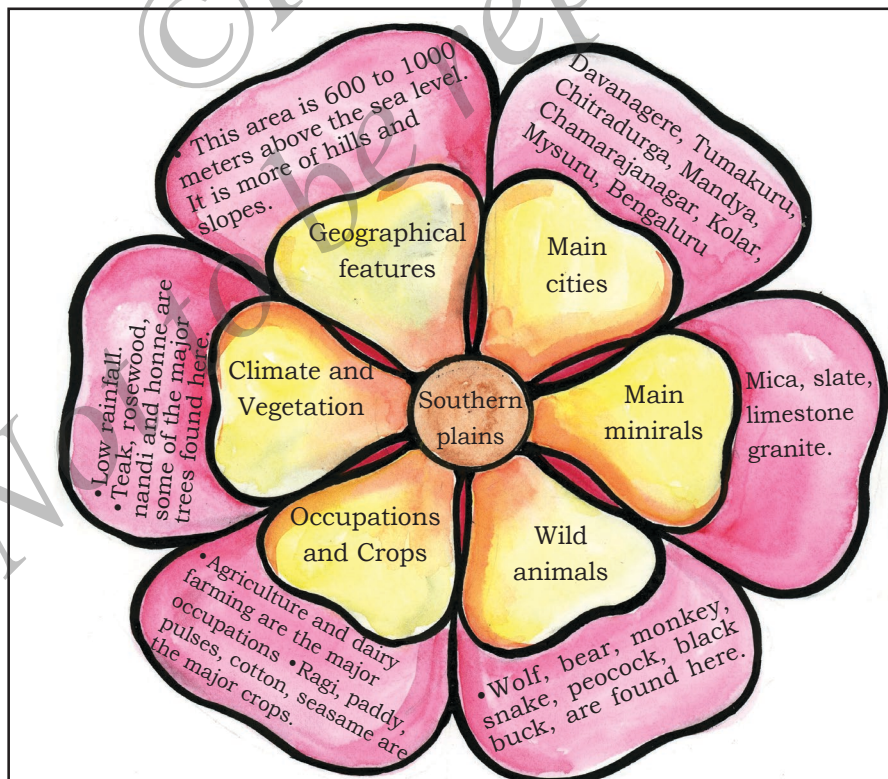
What types of forests are found in northern plains?

Which is the main occupation of the people of northern plains?

Make a list of the relevant factors of northern plains.

Important minerals	
Important animals	
Important crops	

Southern plain is the fourth natural region of our state. Observe the following picture.



Identify the wrong statements related to southern plains. Correct the wrong statements and write them.

- Southern plains are flat. _____.
- The important animal of this region is wolf. _____.
- The important occupation is fishery. _____.
- The important mineral is mica. _____.

Do it yourself

Prepare an album of important trees and wild animals of southern plain.

The rivers

Many rivers flow in our state. Some of them flow towards the east and some towards the west. Here is a list of rivers of our state. With the help of your teacher, classify them as west flowing rivers and east flowing rivers.

Krishna, Ghataprabha, Sharavathi, Kali, Malaprabha, Bhima, Aghanashini, Thungabhadra, Cauveri, Netravathi, Hemavathi, Kabini.

West flowing rivers	East flowing rivers

Know these with the help of your teacher/elders.

- The perennial river of Karnataka is _____
- The longest river of Karnataka is _____

Places of attraction

There are many places of attraction in our state. Thousands of tourists visit our state every year. The details of important cities, historical places and natural resorts are given here. Observe.

Bengaluru

Bengaluru is the capital city of our state. Vidhana soudha, Vikasa soudha, High court, Vishveshwarayya industrial and technological museum, Venkatappa art gallery, Tippu's summer palace, Jawaharlal Nehru planetarium, Lal bagh and Cubbon park are the main places of attraction.



Mysuru

Illuminated palace, Chamundi hills and zoo are important places in Mysuru. **Dasara celebration** held here is famous all over the world.



Write four sentences about any important city of your district.

The historical places are the important places related to the history of our state.

Hampi

Observe this picture. This is a picture of the famous stone chariot of Hampi. Hampi is in Ballari district. It was the capital city of Vijayanagara empire. The architecture of this place is very famous. The carvings of Virupaksha temple, Lotus Mahal, Hazara Ramaswami temple etc., are very beautiful.



Historical places and the districts where they are situated are given below. Match them.

A

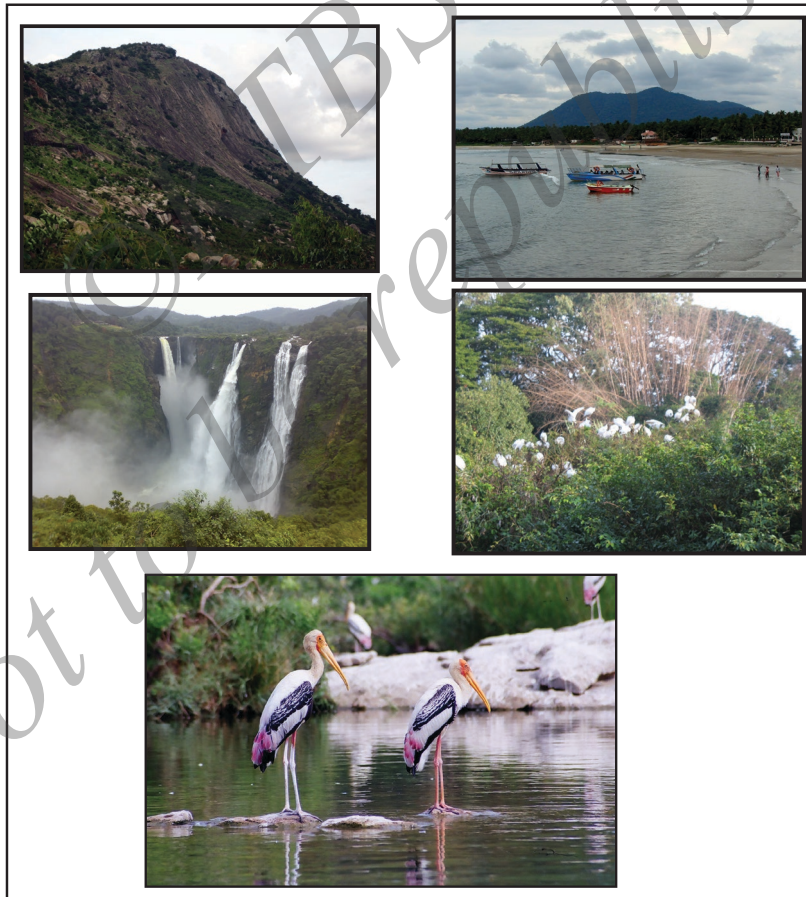
1. Halebeedu
2. Badami
3. Golgumbuz
4. Stone fort
5. Sulthan Batheri

B

- Bagalkote
Vijayapura
Hassan
Dakshina Kannada
Chitradurga

Write four lines about any historical place of your place or district.

Some places attract tourists by their scenic beauty. These are natural resorts.



Nandi hills, Bababudangiri, Mullayana giri, Kemmanugundi, Kudremukh and Kodachadri are important hill stations.



Know this

- People visit the hill stations because of their cool weather and scenic beauty.
- There are beautiful beaches in Ullal, Mangaluru, Malpe and Karawara. Jogfalls of Shivamogga district, Shivanasamudra of Mandya district and Gokak falls of Belagavi district are very beautiful.
- Wild life sanctuaries of Bandipura and Nagarhole and bird sanctuaries of Ranganathittu and Kokkare Bellur are the main attractions for the people. The bear sanctuary of Daroji in Ballari district is very famous.

Classify and write the names of places of attraction that you know, as in the table.

Water falls	Bird sanctuary	Reserve forests	Beaches

Historical places and natural resorts are the symbols of national pride in our state. It is our responsibility to protect them. Some statements are given below. Identify the right and wrong statements.

Sl.No.	Statements	Right	Wrong
1.	Engraving or writing names on historical monuments.		
2.	Keeping silence in bird sanctuaries.		
3.	Troubling the tourists of historical places and natural resorts.		
4.	Hunting animals in natural resorts.		
5.	Using places near historical places for nature's call.		

Discuss with your friends what you will do to protect the historical places and natural resorts.

Do it yourself

Collect pictures of natural resorts from the old news papers or magazines and stick them here.

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Write four lines about a place of attraction that you like.

Our state has been recognized as an important state in the country by its many distinctive characters. You must be proud of our rich and beautiful state.

Do you know this?

- In 2014, Andrapradhesh was divided into two states namely, **Andrapradhesh** and **Telangana**.
- The river Cauveri takes its birth at Talakaveri of Brahmagiri hill in Kodagu district.
- Bengaluru is famous for information technology. So it is also called **Silicon city**.
- In Asia, the first electricity generating station was established in 1902 at Shivanasamudra of Mandya district.
- **Jog falls**, the highest waterfall in India is in Shivamogga district of Karnataka.
- **Thonsepar island** or **Saint Mary's island** of western coastal region has the octagon shaped structures.
- **Hampi** and **Pattadakallu** the historical places of Karnataka are in the list of world heritage sites.