



The World Around Us

Part - 1
Standard-Three

District Akola



Tele MANAS Helpline

Tele MANAS (Tele Mental Health Assistance and Networking Across States)
(14416 / 1800-89-14416)

Under the National Mental Health Program, the centrally sponsored scheme Tele MANAS is being implemented in the state of Maharashtra from October 2022. Under the Tele MANAS Program, free 24 × 7 integrated and comprehensive mental health services are provided through the helpline number 14416. This includes treatment and counselling by experts for various mental problems. The information provided by you after calling the Tele MANAS helpline remains completely confidential, so students, parents and teachers should feel free to call the helpline number and tell them about their problems and doubts and get guidance on it. Tell others to take help from this facility as well.

Manodarpan

The Manodarpan Helpline (8448440632) is a free telephone service that has been made available since July 2020. It is provided by the Ministry of Education through the Manodarpan Cell at the National Council of Educational Research and Training (NCERT) to offer psychological guidance and support to students, parents and teachers. This service is available every day of the week from 8:00 AM to 8:00 PM. Students, parents, and teachers can call this helpline to receive the necessary guidance and counseling.

This textbook aligns with the curriculum and syllabus developed by the State Council of Educational Research and Training (SCERT), Maharashtra, Pune-30 and has been verified by them. The Coordination Committee, established under Government Resolution by GR No. Abhyas - 2116/ (Pra.Kra.43/16) SD - 4 dated April 25, 2016, approved this textbook in its meeting held on April 01, 2026 for use from academic year 2026-27 onwards.

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Part 1

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District Akola



**Maharashtra State Bureau of Textbook Production and Curriculum Research,
Pune 411004.**



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Dr. Maya Unde, Special Officer, Geography (CB)

Quality Reviewer

Dr. Virendra Nagarale
Shri. Sunil Kalekar
Adv. Shrikant Dalvi
Prof. Madhavi Patwardhan

Coordinator

Dr. Sandeep Nikam
I/c Special Officer, Science

Dr. Maya Unde
Special Officer,
Geography (CB)

Translation

Dr. Poonam Kadlag
Shri. Anand Jadhav
Dr. Piyush Telang
Smt. Tejaswini Ghule
Smt. Ketaki Nazirkar
Smt. Pallavi Pathak
Smt. Aditi Medhekar

Scrutiny

Dr. Vinay Dhondge
Dr. Hemalata Patel

Production

Smt. Mitali Shitap
I/c Chief Production Officer
Shri. Manish Nighot
Production Officer

Publisher

Shri. Hemant Babar
I/c Controller
Maharashtra State Textbook
Bureau, Prabhadevi,
Mumbai-400025

Cover and Illustration : Shri. Ram Deshmukh
Shri. Aditya Paradkar, Shri. Dhananjay Lokhande,
Shri. Hemant Sawant, Shri. Bhatu Bagle,
Shri. Ravindra Joshi, Smt. Triveni Thorve,
Smt. Aarati Kulkarni

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The Constitution of India

Chapter IV A

Fundamental Duties

ARTICLE 51A

Fundamental Duties - It shall be the duty of every citizen of India -

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities, to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers and wild life and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;
- (k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.

NATIONAL ANTHEM

Jana-gana-mana-adhināyaka jaya hē
Bhārata-bhāgya-vidhātā,
Panjāba-Sindhu-Gujarāta-Marāthā
Drāvīda-Utkala-Banga
Vindhya-Himāchala-Yamunā-Gangā
uchchala-jaladhi-taranga
Tava subha nāmē jāgē, tava subha āsisa māgē,
gāhē tava jaya-gāthā,
Jana-gana-mangala-dāyaka jaya hē
Bhārata-bhāgya-vidhātā,
Jaya hē, Jaya hē, Jaya hē,
Jaya jaya jaya, jaya hē.

PLEDGE

India is my country. All Indians
are my brothers and sisters.

I love my country, and I am proud
of its rich and varied heritage. I shall
always strive to be worthy of it.

I shall give my parents, teachers
and all elders respect, and treat
everyone with courtesy.

To my country and my people,
I pledge my devotion. In their
well-being and prosperity alone lies
my happiness.

राज्यगीत

जय जय महाराष्ट्र माझा, गर्जा महाराष्ट्र माझा
जय जय महाराष्ट्र माझा, गर्जा महाराष्ट्र माझा ॥धृ॥

भित्ती न आम्हा तुझी मुळी ही गडगडणाऱ्या नभा
अस्मानाच्या सुलतानीला जबाब देती जिभा
सह्याद्रीचा सिंह गर्जतो शिव शंभू राजा
दरी दरीतून नाद गुंजला महाराष्ट्र माझा
जय जय महाराष्ट्र माझा, गर्जा महाराष्ट्र माझा ॥१॥

काळ्या छातीवरी कोरली, अभिमानाची लेणी
पोलादी मनगटे खेळती, खेळ जीवघेणी
दारिद्र्याच्या उन्हात शिजला
निढळाच्या घामाने भिजला
देश गौरवासाठी झिजला
दिल्लीचे ही तख्त राखितो, महाराष्ट्र माझा
जय जय महाराष्ट्र माझा, गर्जा महाराष्ट्र माझा
जय जय महाराष्ट्र माझा ॥२॥

Preface

The curriculum has been prepared from the perspective of implementing the National Education Policy 2020. Maharashtra state Textbook bureau has published textbooks based on this state government approved curriculum framework from the academic year 2026-27. Among these textbooks, we are happy to place the textbook 'The World Around Us' Part- 1 for standard three in your hands.

This textbook has been designed based on fundamental principle, ensuring that the journey of childhood education is joyful and playful, developed students observation skill, emphasis on activities and acquire the expected competencies for preparatory stage. Further more the textbook has been written taking into consideration of all the instructions specified in the curriculum.

An attractive layout and illustrations always attract students. Therefore, this textbook includes pictures and maps as per the content requirements. Considering the students surrounding, various aspects of that surrounding, have been incorporated into the content of this textbook. This textbook is useful in enhancing students' observation skills.

Through this textbook, students will get acquainted about their natural surroundings, animals world of plants and people's lifestyles. Students get information about the geographical features of their district. This textbook will helpful in fostering an unbreakable bond with the surrounding and in acquiring various skills.

This textbook was scrutinized by selected teachers from all parts of the state, by same educationist and members of curriculum committee to make it as flawless and high quality as possible. Comments and suggestions have been duly considered by the Subject Committees while finalising the textbook.

The members of subject committees, quality reviewers and the artists have taken great efforts to prepare this textbook. The Maharashtra State Bureau of Textbook Production and Curriculum Research is thankful to all of them.

We hope that this book will receive a warm welcome from students, teachers and parents.

Pune.

Date: 19 April 2026

Indian Solar Year : Vaishakh Shuddha 2,
Shake 1948
Akshaya Tritiya



(Anuradha Oak)

Director

Maharashtra State Bureau of
Textbook Production
And Curriculum Research, Pune.

■ The World Around Us Part - 1 ■

Curriculum Goal: CG-1 Explores and engages with the natural and socio-cultural environment in their surroundings.			
Sr no.	Pedagogical processes	Learning Outcome	Pg no.
1	C-1.1 Observes and identifies the natural (insects, plants, birds, animals, geographical features, sun, moon, planets, natural resources) and social (houses, relationships) components in their immediate environment	• Tells the living and non-living components in the surrounding.	43, 72
		• classifies between living and nonliving.	43
		• Discusses about the concept of living and non-living.	43, 44
		• Identifies the name of different insects in the surroundings by observation.	78
		• Tells the name of plants in the surrounding.	42, 44, 83
		• Tells the name of familiar and unfamiliar birds from the surrounding.	44, 72, 77, 80, 82
		• Tells the name of animals from the surrounding.	42, 73, 74, 75, 76, 79, 81
		• Classifies living in animals, birds and insects in the surrounding.	43,73,74,75,76,77,78,79
		• Gives examples of interdependence between animals, birds, insects and plants.	81
		• Expresses own opinions on thought-provoking questions that explains the interrelationships between animals and plants.	81
		• Explains the concept of natural resources.	1, 2, 12
		• Explain through an example that air is a natural resource.	2
		• Classifies the soil in the surrounding according to its color and characteristics.	3, 4, 5, 8
		• Tells information about the planet Earth.	33
		• Draws pictures by observing the moon and the sun.	34,35
		• Discusses the phenomena related to the moon and the sun by observing it.	34
		2	C-1.2 Describes relationships (including between humans and animals/nature) and traditions (art forms, celebrations, festivals) in the family and community.
• Tells the geographical features of our district.	132,133,134		
3	C-1.3 Asks questions and makes predictions about simple patterns (season change, food chain, phases of the moon, movement of stars and planets, shapes of trees, plants, leaves, and flowers, rituals, celebrations) observed in the immediate environment	• Shows major rivers, dams and ponds in the map of the district.	132,133
		• Explains the concept of pet animals with examples.	79
		• Tells the uses of domestic animals.	79
		• Shows compassion for pet animals.	78, 80
		• Tells the names of the seasons and their characteristics.	97, 98, 99
		• Identifies and draw the specific patterns in plant leaves and flowers.	47
		• Explains the structure and functions of leaves.	44, 45, 47
4	C-1.5 Uses local materials to create simple objects (family tree, envelopes, origami animals) on their home for display or use in classroom processes	• Tells information about the sun, the earth and the moon.	35
		• Tells the relationship of day and night with the activities of living.	35
		• Shows the journey of rainwater using a picture chart.	9
		• Collects information of making various objects from clay.	5,6,7,8
		• Uses locally available natural resources for making show pieces (plant, leaves, feathers etc) for classroom/ house decoration	86
Curriculum Goal: CG-2 Understands the interdependence in their environment through observation and experiences, developing the basis for appreciation of the idea of ‘Vasudhaiva Kutumbakam’			
5	C-2.1 Identifies natural and humanmade systems that support their lives (water supply, water cycle, river flow systems, seasons, life cycle of plants and animals, food, household items, transport, communication, electricity in the home)	• Explains the process of how water flows from source to home.	10,11
		• Tells about ancient and modern methods of storing water.	11
		• The journey of rainwater is shown with the help of a chart, diagram.	9
		• Tells about various water sources in the surrounding	10
		• Explains the characteristics of Various water storage facilities in the home and surroundings.	11
		• Tells the names of water providing resources from rural and urban areas	11
		• Verifies the growth of plants from seeds to seedlings through activity.	44
		• Tells the functions and importance of human sense organs.	16,17,18,19,20,21
		• Finds examples of the use of different parts of plants (roots, leaves, stems, fruits, and seeds)—as food.	47,105,113,115
		• Tells items from the surroundings and the kitchen that are used as home remedies.	49,50
		• Tell the names and uses of utensils in the kitchen.	87,90
			• Gets information about the previously used utensils in the kitchen and compares them with the utensils used in present era. (Previously means previous first two generations)

		• Tells information about various appliances in daily life.	122,123,124,126,127,129
		• Tells the information about electrical home appliances.	123,124,126,127,129
		• Identifies means of transport and explains their uses.	92
		• Explains the reasons of the journey.	95
		• Tells the names of the means of communication.	93
6	C-2.2 Describes the relationship between the natural environment and cultural practices in their immediate environment (nature of work, food, festivals, traditions)	• Gets information about major crops, famous food items, etc. from different parts of our district.	137,138,139
		• Tells the relation between the festivals and ceremonies celebrated in the surrounding area with the natural environment.	91,139,140
Curriculum Goal: CG-3 Explains how to ensure the safety of self and others in different (normal as well as emergency) situations			
7	C-3.1 Describes the basic safety needs and protection (health and hygiene, food, water, shelter, precautions, awareness of emergency situations, abuse, and unsafe situations) of humans, birds, and animals	• Explains the concept of safe and unsafe touch.	22
		• Takes care while expressing to strangers.	22
		• Adopts good hygiene habits in daily life and in public places.	19,21,23,24
		• Compares traditional cleaning methods used in the past and compares them with the methods used today's era.	24
		• Adopts sports and physical exercise in daily life.	20,106
		• Takes care not to get injured while playing at home, school, in public places.	20
		• Follows hygiene and safety rules in various sports and other group activities.	20,112
		• Takes proper care while using electrical appliances.	25,129
		• Take proper care of animals, birds and plants.	51,80
		• Explain the causes of waste generation and the problems arising from them.	64,65
		• Suggests measures to reduce the waste generation.	66,67
		• Maintains cleanliness in public places by using clean tools and following hygiene rules.	19,21
		• Adopts good hygiene habits, considering the health of others.	19,21
		• Describes the self-cleaning habits of different animals based on observation.	80
		• Identifies healthy food items and tells how to prepare them.	104,105,106,111
		• Tells about the health problems caused due to harmful food.	107,108,109,111
		8	C-3.2 Discusses how to prepare for emergency situations (smoke, fire, small injuries, burns, electrical safety, unseasonal rains, fallen trees) based on discussions with family and community, or personal experiences
• Describes different types of houses.	58,59		
9	C-3.3 Develops simple labels and slogans, and participates in roleplay on safety and protection in the local environment to be displayed/done in school and locality	• Gets information about the materials needed to build houses according to their types.	59,61
8	C-3.2 Discusses how to prepare for emergency situations (smoke, fire, small injuries, burns, electrical safety, unseasonal rains, fallen trees) based on discussions with family and community, or personal experiences	• Makes a list of sudden dangers that may occur at home, school, and public places (minor injuries, cuts, scratches, burns).	27
		• Lists the materials in the first aid kit.	28
9	C-3.3 Develops simple labels and slogans, and participates in roleplay on safety and protection in the local environment to be displayed/done in school and locality	• Identifies road safety related signs, notices etc.	26,27
		• Lists and follows rules related to road safety.	26,27,32
		• Creates slogans to create awareness about personal and surrounding hygiene, health habits, safe and unsafe touch.	32
		• Presenting a role-play regarding the measures to be taken during a disaster.	25,26
Curriculum Goal: CG-4 Develops sensitivity towards social and natural environment.			
10	C-4.1 Observes and describes diversity among plants, and birds and animals in their immediate environment (shape, sounds, food habits, growth, habitat)	• Classifies plants into trees, shrubs, plants, vines and grasses according to their shapes.	45,46
		• Names the various parts of plants and explains their uses.	44,48,49
		• Understands the structural features (similarities, diversity) of leaves, stems and flowers of plants.	43,45,47,51
		• Observes different flowers based on the simple characteristics of their shape, color, and fragrance.	44,45,46,47,49,52,53
		• Recognizes different types of birds by their physical characteristics and sounds.	77,86
		• Create groups of different animals according to similar physical characteristics.	73,76
11	C-4.2 Observes and describes cultural diversity in their immediate environment (food, clothing, games, different seasons, festivals related to harvest and sowing)	• Identifies the diversity in the clothing of people from different regions.	100,101
		• Identifies the difference between traditional and modern clothing.	100,101

12	C-4.3 Describes usage of natural resources in their immediate environment	• Tells about the natural resources of the surrounding.	1,2,12
		• Explain the uses of plants for humans.	48,49,50,51
		• Gets information about the uses of various animals.	79
		• Tells the uses of water in daily life.	3
		• Get the information about the methods of making various items of daily use. Makes metal objects and utensils by casting (moulding). Makes weapons.	5,6,7
13	C-4.4 Demonstrates how natural resources can be shared, maintained, and conserved (trees, use of rainwater, benefits of millets)	• Creates and cultivates backyard gardens at school and at home. Plant trees with useful and medicinal properties.	50,56
		• Identifies millets and explains their uses.	48,113
		• Explains the problems caused by water pollution.	12
		• Explains the importance of forests and the need to protect them.	51,52
14	C-4.5 Identifies needs of plants, birds, and animals, and how they can be supported (water, soil, food, care)	• Explains the need of water for plants.	47
		• Explains the importance of soil for plants.	44
		• Provides water facility for animals and birds in the area.	80
15	C-4.7 Learns about basic social and behavioural norms, values, and dispositions that benefit our social and natural environments and that help our society function smoothly (using dustbins, standing in queues, conserving water, using public transportation, keeping one's environment clean, always helping others in need regardless of background)	• Tells the difference between urban and rural life.	88,89,90,91
		• Tells the information regarding the infrastructure.	88,89
Curriculum Goal: CG-5 Develops the ability to read and interpret simple maps			
16	C-5.1 Explains a line drawing of their school, village, and ward	• Shows boundaries of houses, schools, villages and talukas in the map.	36,37
17	C-5.2 Draws a sketch of their school, village, and ward using symbols and directions	• Solves puzzles based on maps by understanding directions.	36,37
18	C-5.3 Reads simple maps of city, state, and country to identify natural and humanmade features (well, lake, post office, school, hospital) with reference to symbols and directions	• Reads the map of our district.	38
		• Identifies our district on the map of Maharashtra.	39
Curriculum Goal: CG-6 Uses data and information from various sources to investigate questions related to their immediate environment.			
19	C-6.1 Performs simple inquiry related to specific questions independently or in groups	a) Expresses own opinions on thought-provoking questions. b) Discusses thought-provoking questions in groups. c) Answers/writes open-ended questions. d) Formulates questions leading to answers which can solve puzzles. e) Formulates questions to solve problems. f) Asks questions related to various events, objects and processes in the surrounding. g) Finds answers to of questions through observation. h) Find more information about various concepts through observation.	Included and Integrated into all lessons.
20	C-6.2 Presents observations and findings through different creative modes (drawing, diagram, poem, play, skit, oral and written expression)	a) Draws pictures by observing living in the surroundings. b) Draws diagrams and pictures based on various concepts. c) Presents different concepts using pictures and diagrams. d) Presents various concepts through drama, games and poems. e) Expresses different concepts through oral or written communication. f) Observes various activities and presents conclusions through different media.	
Curriculum Goal: CG-7 Gains foundational familiarity with basic concepts and methods from the natural sciences (life sciences, physical sciences, and earth and space sciences) and engineering.			
21	C-7.1 Gains familiarity with using the scientific method in investigations, as well as familiarity with other crosscutting concepts such as energy, matter, and systems that apply across the domains of science and engineering.	• Tells the names of natural and man-made materials in the surrounding.	117,119
		• Tells the states of matter (solid, liquid and gas)	120,121
		• Identifies simple properties of substances.	119,120
		• Classifies the substances into solid, liquid and gas.	121
22	C-7.2 Gains familiarity with disciplinary core ideas in the natural sciences, as well as in engineering, technology, and applications of science, which reflect the content that will be learned across subject areas in later Grades.	• Identifies the source of the sound.	124,125
		• Tells the examples of air pressure in everyday life.	126,127

■ While understanding a textbook..... ■

- The structure of all the lessons in the textbook are based on the curriculum goals, learning competencies and learning outcomes.
- The textbook 'The world Around Us – Part 1' is structured to help students to connect the basic concepts of subjects like Science and Geography through learning experiences based on their surrounding. Also, through the lesson 'Our District', information about the district has been provided. The objective of this textbook is to develop environmental sensitivity among children, enhance their skills of working in groups and foster a positive attitude.
- To develop the competencies included under the integrated curriculum goals (CG 6 and CG 7), activities and tasks should be planned consciously.
- The textbook 'The world Around Us – Part 1' emphasizes conceptual understanding, logical thinking, creativity and the values and attitudes required for developmental levels.
- As per the National Education Policy 2020, integrated education based on art, sports, toys, and technology should be included in daily teaching.
- Introduced Indian Knowledge Systems (IKS) according to the content of the textbook.
- The planning of activities for learning experiences should be done according to levels such as awareness, sensitivity, creativity, rubric-based assessment. It should also be verified at which level the student is.
- The textbook includes various activities to provide an initial introduction to vocational education. These activities should be done by the students.
- The concepts in the textbook should be explained using the observation of surroundings and picture, songs, games, conversations, activities, projects and practicles with available local material.
- The activities in the textbook should be conducted individually, in pairs, or in groups as required, in order to promote peer learning and collaborative learning.
- The process should facilitate understanding and application of the basic concepts of Science and Geography, as well as develop environmental sensitivity and awareness.
- This textbook is not meant to be taught only by reading and explaining it in the classroom. Rather than students merely solving questions, it aims to enable them to express what they have learned in their own words and share it with others, as well as to frame their own questions. Such higher-order learning opportunities have been considered in the textbook and should be further expanded.
- The instructions given in the textbook are of a guiding nature; therefore, necessary modifications should be made in the teaching-learning process according to the local surrounding context, dialect and examples from the surroundings.
- The answers to the questions given in the textbook should be written in the notebook, checked and used for assessment.
- Conduct the teaching learning process for students with special needs, sign language  as well as other supplementary pedagogical methods should be used. Students with special need shuld be given the opportunity to express themselves in whatever way is possible for them.

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Maps in textbooks have been prepared only for educational purposes. They should not be considered as a standard for any geographical or political use. While preparing the maps maximum level of accuracy is maintained. However, any error that may remain could be due technical limitations.



Treasures of Nature - Air, Water and Soil



Observe.



Let's identify.

- › What makes the blades of a windmill spin?
- › Where do we get water from?
- › What do we use water for?
- › What is the colour of soil in the picture?
- › Why is soil necessary for plants growth?

The picture above shows a windmill. The blades of the windmill rotate due to the wind. This can generate energy. A large amount of water has accumulated in the lake due to rainfall. The water in the lake is used extensively for agricultural and domestic purposes. Crops and trees are also seen growing on the land. Air, water and soil are natural elements. The elements that humans get from nature and use in their daily lives. They are called 'natural resources'. Air, water and soil are natural resources around us. So, let's know about them!



Let's understand.

We cannot see air, but we can feel it in the form of wind. All living things need air to survive. Air is a mixture of different gases. The main components of air are nitrogen, oxygen, and carbon dioxide. Apart from these, other gases are also present in small quantities in the air. Oxygen is essential for all living things. Air is always changing. Everyone needs to take care that the air in the atmosphere remains clean and pure. Let us understand the uses of air in daily life.



Let's find out!

- It's here but not visible.
- Many substances dissolve in it.
- Seeds germinate easily in this.
- What other tools can you fill with air according to the picture below?



Let's discuss.

With the help of the teacher, discuss the uses of air in daily life and give suitable examples.



Can you tell!

- Where does the water come from in your area?
- How is water stored in the house?
- What are the uses of water in your home?

‘Water is life’, we get water from rain.

Let us understand the uses of water based on the following concept pictures.



Perform the activity.

With the help of teachers/friends, make slogans which tell the importance of water.

Teacher: Friends, we see different coloured soil in our area. We make various things from soil. So, let's learn about soil. There is a difference between soil and earthen material.

Student: How is that? Soil and earthen material are the same thing.

Teacher: No, children. It is the soil in which the farmer sows his crops. It is the earthen material that is used to make pots, jars, bricks, earthenwares, etc.

Student: Are there any other differences?

Teacher: Soil is a material made up of sand, rock fragments, dust particles, silt, etc. found on the ground.

Student: I understood, Teacher.

Teacher: Soil is formed from small pieces of rocks. These pieces are converted into particles and the remnants of plants and animals are mixed with them. The mixture formed from such rocks and mixed with micro-organisms is called 'soil'.



Observe.

Observe the pictures given below and write the colour of the soil in the given box.



Let's understand.

Do's	Don'ts
• Water should be used carefully • 'Save water' • 'Plant trees, get clean air'. • 'Plant trees, conserve the soil'	• Do not spill water • Do not pollute the water. • Do not cut trees. • Do not pollute the air.

Today there was a workshop for making clay item at school. The teacher and the students of Std. 3rd who were making the items gathered in a painting class. The teacher was giving them instructions. The children in the workshop were performing according to their instructions.

Teacher: Come, let's all make clay balls by adding a little water.

Teacher: What do you feel when you hold the soil in your hands?

Radha: The soil is soft and sticky.



Teacher: Right, from what kind of soil do we make things?

Omkar: Red soil, black soil, grey soil, etc.

Teacher: Yes, that's right. We have soil of different colours. Soil contains many fine and large particles. Depending on the size of the particles in the soil, they are called clay, silt and sand. The texture of the soil is determined by the proportion of these particles in the soil. Some types of soil are fine and soft, while some types of soil are coarse in texture.

Teacher: We use pots to store water.

Everyone: Yes, madam.

Teacher: What are those utensils made of?

Rishan: From clay and metals.

Teacher: Absolutely right, different things are made from soil. Have you seen them?



Pottery

Radha: Yes, I have seen them.

Teacher: Which ones?

Radha: Earthen pots, vases, clay lamps, incense burners, idols, pots, diwali fort toys, etc.

Teacher: Who makes them and how?

Asim: Pottery is made in my area, but I don't know how it is made?

Teacher: Let's get the information about it.



Observe.

Let's learn about the journey from the soil to the claypot.



1

Clay workers/potters first obtain good soil.

To make the clay pot better, some other ingredients are mixed into the soil. Then the soil is mixed well to make it uniform.



2



4



3

They turn the clay on a wheel and create various types of clay pots from it.

Raw clay pots are baked in a kiln and to make them firm.

Prepared clay Pot. ▶



5



Let's understand.

The teacher along with the students visit to the surrounding area where clay items are made. The clay workers bring clay from the riverbank and other places. They add various ingredients and water to the clay and knead it to make it uniform. They take care that the clay is neither watery nor dry and that it is uniform. Then they make a ball of clay. They place the clay ball on a wooden wheel. The wheel is rotated to shape the clay ball. The prepared pots are dried and baked in a kiln. To make the pots look attractive, they paint the pots and draw design on them. In the same way, decorative objects, idols, pots and clay lamps are made from clay.



Can you tell!

- What are earthenware pots used for?
- What types of clay items do potters make?
- Why do clay pots have to be baked?

In the box given below, draw pictures of some of the clay items you saw at the pottery workshop.





Try it.

(Do the following activity with the help of your parents / teachers.)

- Collect the soil.
- Use a mesh or sieve to remove large stones and debris from the soil.
- Mix water and make a ball of clay.
- Make two objects of your choice from



clay balls. Paint the objects you have made. Make designs on them.



Do you know?

You must have seen the spots on a leopard's body or the stripes on a tiger's body, as well as the feathers on a peacock's wings in various paintings. There are many things in nature that can be seen from which the idea of a design can be derived. Designs are found everywhere in nature. Whether it is on the body of a leopard or on the wings of a peacock, the ideas for the pictures that artists draw on pots come from nature itself. Patterns can be created by observing the shapes and colours in nature.





Observe.



Let's understand.

Heat affects the water stored in a large reservoir or in the sea. Some of the water is converted into vapours. The temperature of the vapours is higher than the surrounding air. Therefore, it becomes lighter. As a result, the vapours start moving upwards and rise to a higher level in the same direction. The air at higher levels is cooler. Vapours form clouds in the sky. The clouds are carried by the wind. They are blocked by mountains. Water falls on the ground in the form of rain. Water flows downward in the form of streams, rivers and rivulets. In this way, the journey of water that starts from the sea and ends in the sea is called as 'water cycle'. This cycle of water continues without stopping.



Can you tell!

- 1) Explain how water travel starts from the sea and terminates in the sea?
- 2) What are the natural sources of water?



Let's understand.



- Rainwater falls on higher grounds like hills. It flows downhill. Many streams, rivulets and rills are formed. These come together to form a river. It flows through hills, valleys, plateaus and plains.

- A lake is a confined and stable water body surrounded by land. Lakes can be natural or man-made.



- Rainwater percolates into the ground. It seeps deep into the soil and rocks on the ground. This seeped water comes out of the ground at some places and is called a 'spring'.

- The flowing water of a river is stopped by building a wall, which is called a weir or 'dam'.



- Some of the rainwater seeps into the ground. A well is dug to extract this water. This water is also extracted using a hand pump or a tubewell.

- Streams, springs, lakes and rivers are natural sources of water.





Can you tell!

We store water for our needs in our area. There are some traditional and modern methods of storing water. With the help of the teacher, tell us which of the following methods are used to store water in your area.



Try it.

Do the following activity with the help of teachers and parents.

Is there a stream, lake, dam or river near your village or city? Find out their names and write down information.



Let's understand.

Water is a precious gift. We store it to ensure its availability. In cities, people get water from taps in their homes, while in villages, people must collect water from lakes, streams, wells, tubewells and rivers to store it at home. In recent period, the tap water facilities have been made available in villages too.

Water is stored using various methods for villages and cities in our area. There are natural (lake) and man-made (reservoirs and wells) sources of water storage.

- Complete the table given below with the help of your teacher.

Sr. No	Water storage in our area	
	Natural water storage	Man-made water storage
1		
2		
3		
4		



Let's understand.

Natural elements like air, water and soil are used to make human life comfortable. All of these are called 'natural resources'. Natural resources like air, water and soil on earth are important for human beings. Air, water and soil are very essential for the existence and development of living beings. All these resources should be used with care and caution.

To avoid scarcity of natural resources, they should be used carefully and conserved.



Let's discuss.

Discuss through teacher - students interaction.

- 'Water is a gift of nature'. What happens if there would be no water?
- Discuss the causes and problems of water pollution.



Can you tell!

- Why is it necessary to save water?
- How to save water?

Instructions for teachers:

- What measures are taken to clean and purify water at your home? Give a presentation in class about this.
- With the help of teachers/ parents get information about how water is supplied in the surrounding area.



We have studied this



- Natural resources such as air, water, and soil are an essential to meet the needs of living things.
- The journey of water, which starts from the sea and ends in the sea, is called as 'water cycle'.
- Various objects can be made from clay.
- Water should be used carefully to avoid water shortage.
- Water is life. Water is a precious gift.
- Living things need air to survive.



Let's Revise

(1) Fill in the blank with the correct word.

1) Windmill blades rotate due to

- (a) wind (b) water (c) soil (d) heat

2) Utensils are made from

- (a) Cloth (b) Soil (c) Sand (d) Wood

3) is the gift of nature.

- (a) Houses (b) Shops (c) Dams (d) Water

4) The of soil is determined by the size of particles in it.

- (a) colour (b) texture (c) uses (d) quality

(2) Answer in one sentence.

- 1) What do we get from nature?
- 2) What are the modern methods of storing water?
- 3) What items are made from clay?

(3) Write answers in short.

- 1) What is water cycle?
- 2) Write the process of making pottery.
- 3) Write the benefits of saving water.
- 4) Write the importance of air in daily life.
- 5) What measures should be taken to prevent shortage of natural resources?

(4) What measures should be taken to keep the water clean in the house?

(5) Observe the pictures. What will you do to save water?



(6) Why do you think water is a natural resource?

(7) Observe the pictures. Tick the picture you have liked and tell why?



Activity

- Find designs on objects around you and draw one in the given box.



- Decorate the objects in the pictures, such as cups, earthen pot, and surai with designs.



- Draw pictures of different containers for storing water. Look at the pictures drawn by your classmates. Write the names of the different containers in the pictures in your notebook.

Discuss with your classmates and draw a picture.

- Make a list of the containers in which water is stored in your home.





My Healthy and Safe Life



Observe.

Write the name of the body part being mainly used for the action in the picture below it.



Our Five Senses



My eyes see the world so wide,
Birds and animals side by side.

My ears hear the sounds so sweet,
Songs and voices that gently meet.



My tongue tastes flavours every day,
Sour, bitter and sweet at play.

My nose smells the lovely air,
Fragrant scents are everywhere.



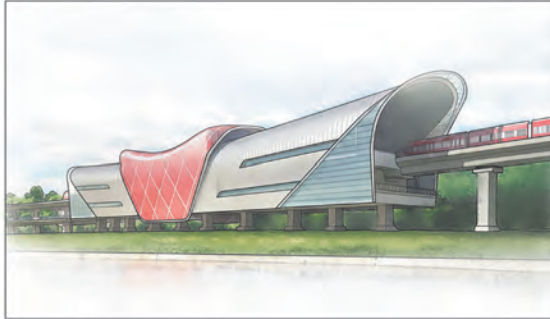
My skin can feel both soft and strong,
Touch that tells me right from wrong.

When all five senses work as one,
Learning happens, full of fun.

The body parts that make us aware of our surroundings are called sense organs. Our five sense organs are eyes, ears, nose, tongue and skin. These are also known as the five sense organs. Let us study what their functions are.

Functions of the Sense Organs

Eyes: We can see with the help of our eyes. They help us to understand different types of objects, substances, their shapes, and colours. We can also judge how far an object is with the help of our eyes.



Ears : We can hear with the help of our ears. They help us to identify various sounds and recognize the direction from which a sound is coming.

Nose: We breathe through our nose. It helps us distinguish the fragrance of flowers, fruits, and perfumes. It also alerts us to foul smells, such as spoiled food or wet garbage.



Skin: With the help of skin we become aware of sensations such as hot, cold, soft, hard, rough, smooth. The skin helps us identify the texture of different objects.

Tongue: We understand taste with the help of the tongue. We identify four tastes like sweet, sour, salty, and bitter through the tongue. Eating spicy food causes a burning sensation of the tongue. Raw guava tastes astringent. Spicy and astringent are two sensations. The tongue helps moving the morsel of food around in the mouth and swallowing it.



Carnival of Tastes on the Tongue

We understand the tastes of various food items with the help of the tongue. It is truly a carnival of tastes on the tongue.



Bitter



Sour



Salty



Sweet



Do you know?

'Shadras' is an important principle in Ayurveda. 'Shad' means six and 'Ras' means taste. According to Ayurveda Sweet, Sour, Salty, Bitter, Spicy and Astringent these six tastes are called 'Shadras'. Consuming these shadras in the right proportion is essential for good health and for preventing diseases.



Always remember

Eyes, ears, and the nose are delicate organs. It is necessary to keep these organs clean. Do not use sharp objects for this purpose. Take care that they do not get injured.

|| Let's Understand

Observe the following pictures and understand healthy habits.



Wake up early in the morning.



Wash hands thoroughly with soap after using toilet.



Brush teeth every day.



Take bath every day.



Exercise every day.



Wear clean clothes.



Cut nails regularly.



Get a haircut regularly.



Wash hair regularly.



Drink enough water.



Eat nutritious food.



Get enough sleep.



Wash hands thoroughly before and after meals.



Do not spit in public places.



Throw garbage only in dustbin.



Do not shout or speak in a loud voice.



Observe.



- (1) Which games do you play?
- (2) Which is your favorite game?
- (3) Why do you like that game?
- (4) What are the benefits of playing games?

Precautions to be taken while playing

- Follow the rules of the game.
- Help your friends.
- Do not play outdoor games immediately after eating a meal.
- Wash your hands and feet thoroughly after playing, drink enough water and take rest.
- Take care of your playmates while playing games.
- Take treatment immediately after injury.

Instruction for Teachers: Teachers should discuss with students to make them aware of various benefits of sports.

Look at the pictures below and identify good and bad habits. ○ around
 👍 below the picture showing good habit and 👎 below the picture showing bad habit.



Can you Tell?

What other good habits can you tell?

|| Let's Understand.



Body:

My body belongs to me. No one can hurt it.



Private Parts:

The lips, chest, and the area below the waist are called private parts. No one is permitted to look at them, talk about them or touch them. This is the rule of touch.



Secret:

If someone breaks the rule of touch, behaves wrongly with you, and asks you to keep it a secret, do not hide this from your parents at all.



Hug/Cuddle:

You like when your favourite person holds you close or kisses you. But if someone else does this and you feel scared or dislike it, you must tell your elders.



Shout loudly and Run Away:

If you experience a bad touch, shout loudly, say "No," and run away.



It Is Never Your Fault:

If you experience a bad touch, remember it is never your fault.

Tell and Remember: If you experience a bad touch tell your parents, grandparents, or teachers immediately. They will definitely help you.

Instruction for Teachers: Provide appropriate information to learners regarding safe touch, unsafe touch, and taking care when interacting with strangers and create awareness about it.

|| Hand Hygiene

Observe the pictures and write the correct instructions in the blank spaces. The process of washing hands should last for 40 to 60 seconds.



.....



.....



Rub your palms together.



Rub the back of both hands with the fingers interlocked.



Rub your palms together with fingers of both hands interlocked.



Grip your fingers together and rub with the back of the fingers against the opposing palms.



Rub rotationally the right thumb with the left palm and the left thumb with the right palm.



Rub the fingertips of one hand rotationally in the palm of the other hand. Do the same for the other hand.



.....



.....



Now your hands are clean.



Do You Know?

➤ October 15th is celebrated as 'Global Handwashing' Day to create public awareness about hand hygiene.

Dental Hygiene



Put toothpaste or tooth powder on the brush.



Hold the brush slanted over the teeth.



Brush your teeth in a circular motion.



Brush teeth from top to bottom and from bottom to top.



Brush your teeth in a circular motion.



Brush the inner surfaces of the teeth.



Clean your gums and tongue.



Rinse your mouth with water.



Always Remember

Clean your teeth after waking up in the morning and before going to bed at night. At other times, rinse your mouth with water after eating something.



Do You Know?

- Fresh twigs from trees like *Neem*, *Babool*, *Hirda*, and *Miswak* are used for cleaning teeth.
- *Reetha* (Soapnut) and *Shikakai* are used for washing hair.
- Gram flour (*Besan*) and Herbal scrub (*Utane*) are used for cleaning the skin.

Maintaining proper body hygiene helps maintain good health. Along with this, we can face many dangers while moving around inside or outside the house. We must take care while handling electrical appliances and crossing the road to keep ourselves safe.



Use electrical appliances only with the help of elders.



Do not put fingers, pens, or spoons into sockets.



Do not touch electrical appliances with wet hands.



Stay away from places where electric wires touch each other and cause sparks.



Move away immediately from a place that has caught fire.

|| Road Safety



Road Safety Song

Let's go for a ride today,
Come and sit, don't delay.
Seatbelt on, safe and tight,
Just wait a minute, we'll do it right.

At the crossing, stop and see,
Don't rush, just wait with me.
Red light shows, you must stay,
Do not go, don't drive away.



Yellow light is shining bright,
Slow down now, hold on tight.
Green light glows, the way is clear,
Move ahead with no more fear.

On a scooter, two are fine,
Three is wrong, draw the line.
No helmet on? That's a scare,
You could get hurt, so take care!



Four wheels or two, when you drive,
Keep your phone away to stay alive.
No calls, no texts, keep eyes ahead,
So you reach home safe to bed.

Zebra lines are for your feet,
Cross the road, safe and neat.
These are rules for me and you,
Road safety – we all must do!



Instruction for Teachers: Conduct mock drills for students to follow road safety rules.



Do the activity.

Match the following.

Symbols

Meaning



(a) School ahead.



(b) No Parking.



(c) Cross the road.



(d) Stop.



(e) No Entry.

Let's Understand

Sometimes at home, in school, on the road, in the playground, or in a garden, we might get a small injury. Like a scratch, a thorn prick, a cut, a fall, a burn, or getting hit while playing resulting in bleeding from the nose, lips, or teeth. The treatment given for such small injuries before going to the hospital is called 'First Aid'.

The box in which the materials required for giving first aid are kept is called a 'First Aid Box'.



Always remember

Item from first aid kit should always be used with the help of elders.

Instruction for Teachers: Ask students to create slogans based on personal safety and healthy habits.



We have studied this



- The organs that make us aware of our surroundings are called sense organs (e.g., eyes, ears, nose, tongue, and skin).
- We should always take care of our sense organs.
- Everyone should develop good habits. Stay away from bad habits.
- Clean your teeth after waking up in the morning and before going to sleep at night.
- Take proper care when interacting with strangers.
- Be careful while handling electrical appliances.
- Be careful while crossing the road. Follow traffic rules.
- The treatment given for minor injuries before going to the hospital is called First Aid. The box in which the materials required for giving first aid are kept is called a First Aid Box.



Let's Revise

(A) Write answers in one sentence.

- (1) What are sensory organs?
- (2) How long should we wash our hands?
- (3) What is the function of the skin?

(B) Match the pairs

Symbols

Meaning

(1)



(a) Head safety

(2)



(b) For crossing the road

(3)



(c) Bicycle track

(4)



(d) Do not cross the road

(5)



(e) For walking

(C) Mark (✓) for correct actions and mark (✗) for incorrect actions.

- | | |
|--|----------|
| (1) Not using the footpath for walking. | () |
| (2) Use of a seatbelt. | () |
| (3) Throwing crumpled paper on the road. | () |
| (4) Washing hands in a hurry. | () |
| (5) Brushing teeth before sleeping at night. | () |
| (6) Pushing friends on the playground. | () |
| (7) Wearing clean clothes. | () |
| (8) Urinating by the roadside. | () |

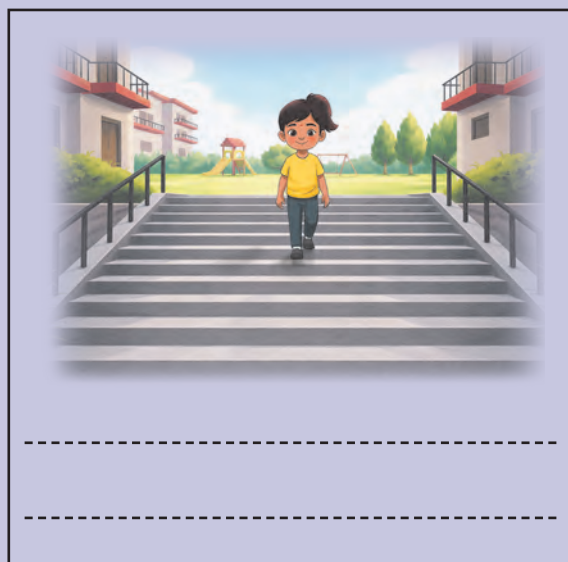
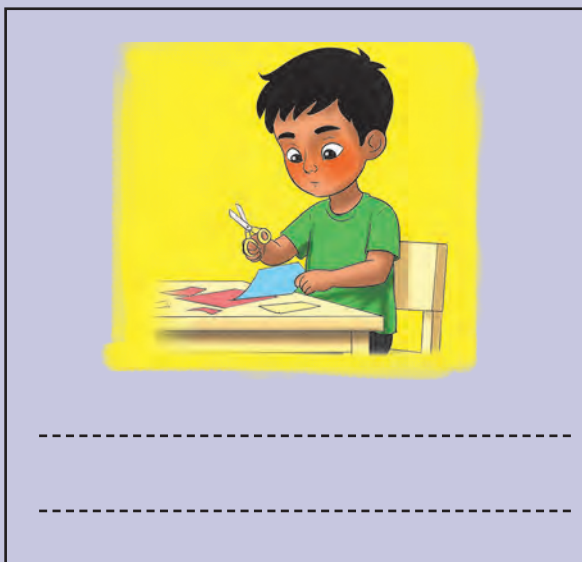
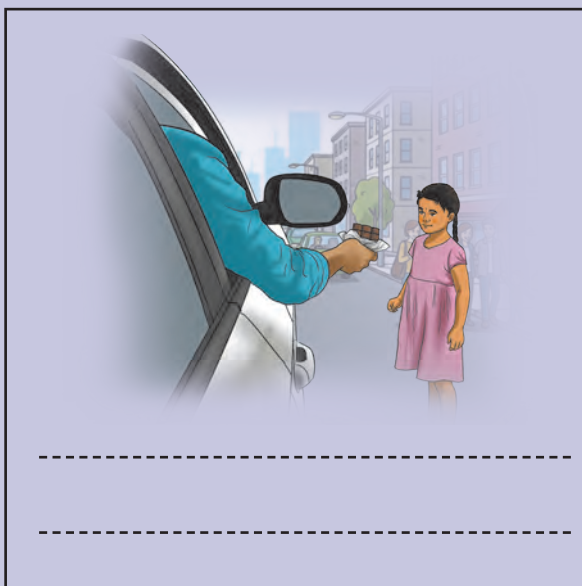
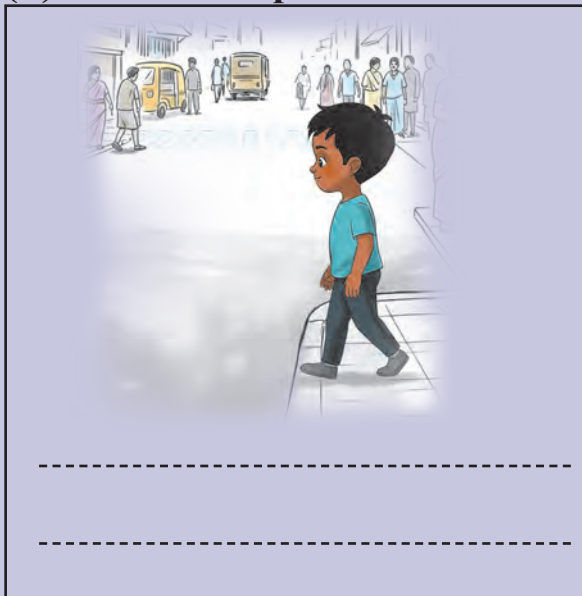
(D) Complete the table.

Activity	Things used in the past	Things used now
 Dental Hygiene	 	
 Hair Hygiene	 	

(E) Complete the chart.



(F) Observe the pictures below and write what precautions you will take.



(G) Write in the box, which sense organ helps us to understand the following information..

- | | |
|---|----------------------|
| (1) Lemon is sour. | <input type="text"/> |
| (2) A dog is barking outside the house. | <input type="text"/> |
| (3) The colour of the raw mango is green. | <input type="text"/> |
| (4) The cotton in the pillow is soft. | <input type="text"/> |
| (5) Drums (Dhol-Tasha) are playing. | <input type="text"/> |
| (6) The tempering (fodni) is being added to the dal in the kitchen. | <input type="text"/> |
| (7) The griddle (tava) is very hot. | <input type="text"/> |
| (8) The curry is salty. | <input type="text"/> |
| (9) The fragrance of perfume. | <input type="text"/> |
| (10) The sky is blue. | <input type="text"/> |

(H) Create slogans.

(Personal Safety, Environmental Cleanliness, Health Habits).

'Good habits, healthy life'

'Let's bathe every day, let's keep diseases away'

Activity

- Make a list of other traffic rules you know and draw a picture of any one traffic rule symbol and write it's meaning.



Our Universe - Sun, Earth and Moon



Observe.

Observe the globe and with the help of your teacher, answer the following questions.



- What is shown by the blue colour on the globe?
- What colours are used to show the water and land areas on the globe?

The land area on the Earth is less, about 29%, while the water area is 71%.

Water bodies - Water on the Earth is seen in the form of flowing water and stored water. Springs, rills, rivulets, rivers are examples of flowing water. Ponds, pools, small ponds, puddles, lakes, bay, seas and oceans are examples of water bodies.

Landforms – The different shapes of the land formed due to its ups and downs are called landforms. Mountains, plateaus, plains, peaks, hills, ridges, pass and valley are landforms.

Earth is a major planet in the solar system. The Earth is surrounded by air. Living things exist on land, in water and in the air.

Continent: A large landmass on Earth is called a continent.

Ocean: A large body of salt water on Earth is called an ocean.

The amount of water on Earth is greater than the land. That is why Earth is also called the 'water planet'.



Observe.

Answer the following questions.

- What is the colour of sun at sunrise?
- Is the size of moon same everyday? Observe and write down.



Moon



Sun



Let's understand.

Do this activity with the help of elders in your family.

- * Find an open space where you can see the sky clearly.
- * Go to that open space every morning and evening for a week.
- * Observe the rising and setting times of the sun and moon.
- * Why does the shape of the sun look the same every day?
- * Why does the size of the moon change every day? Understand this.
- * The time of rising and setting of the sun and moon are given in calendars and newspapers.

Using such sources, prepare a table of the time of rising and setting of the sun and moon for a week.



Let's understand.

You must have seen the moon and many twinkling objects in the sky. If you observe the sky at night, you will notice that not all stars shine. The twinkling objects that shine are called as stars. The ones that don't shine are called as planets and satellites. Planets revolve around stars and also rotate around themselves.

The sun is a star and has its own light. The sun is spherical. It gives us heat and light. The sun is at the centre and the planets and satellites revolve around it. The earth is a planet. Planets do not have their own light. The earth gets its light from the sun. The earth and the moon revolve around the sun. The earth spins on its axis this is called 'rotation'. Similarly, while rotating on its own axis the earth also travels around the sun, which is called as 'revolution'. The earth's rotation causes sunrise and sunset.

After sunrise there is day light in a region and this light remains until sunset. This period is called as 'Day'. The darkness that occurs after sunset and remains until the sunrise of the next day is called as 'Night'. A day consist of both 'Day' and 'Night' periods combined. A single day has 24 hours.

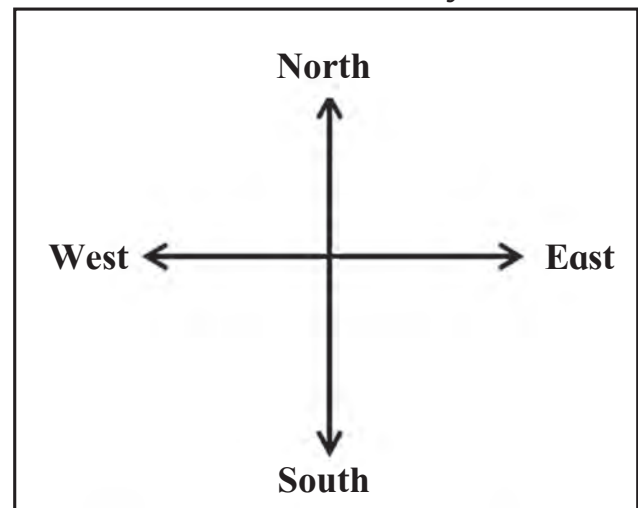
The moon is a satellite of the earth. The moon revolves around the earth and also revolves around the sun with the earth. It does not have its own light. The moon receives light from the sun. Therefore, the moon appears illuminated. The shape of the moon changes every day, which are called the phases of the moon. The day when the moon appears as a complete circle in the sky is called 'full moon day'.

For 15 days after the full moon day, the visible part of the moon reduces everyday. On the fifteenth day, the moon is in the sky, but it is not visible to the eyes and that day is called as 'New Moon Day'.



Let's understand.

The direction in which the sun rises is called 'East direction'. The rising of the sun is called 'Sunrise'. The direction in which the sun sets is called 'West direction'. The setting of the sun is called 'Sunset'.





Sunrise



Sunset

One day, Teacher took the children to the school playground.

Teacher : Today I am going to give you information about directions. Do you know that wherever we go; we need to understand the direction.

Student: Yes, teacher.

Teacher : In which direction does the sun rises?

Sameer: East direction.

Teacher: Right, in which direction does the sun sets?

Amrita: In the west direction.

Teacher : Just as there are directions like east and west, there are two more directions.

Rohan: Which ones?

Teacher : Stand facing the east direction, then the north direction will be on your left side and the south direction will be on your right side.

All children: It means there are four major directions: East, West, North and South.

Teacher : Absolutely correct.



Do you know?

The sun rises and sets everyday, hence humans have used the sun to determine direction and time. A picture of compass is given. The magnetic needle in a compass always points north-south direction. You can see it with the help of a teacher or parent.





Let's understand.

Maps are created to provide information about the Earth and to make it easier to study it. Creating such maps makes it easier for you to tell the location of a place.



Think about.

In the picture given below, a house is shown at the centre. The school is located in the east direction. Find out in which direction the other places are located in the picture and write it in the given box.



|| Solve the crossword.

The box given right side contains names of major directions. One of the direction is encircled. Find out the names of other directions.

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



Let's understand.

There are many houses around us. Many houses put together form a village. We cannot show a village as it is in a picture, so we draw a picture of the area using directions, scale, signs and symbols, which is called a 'map'.

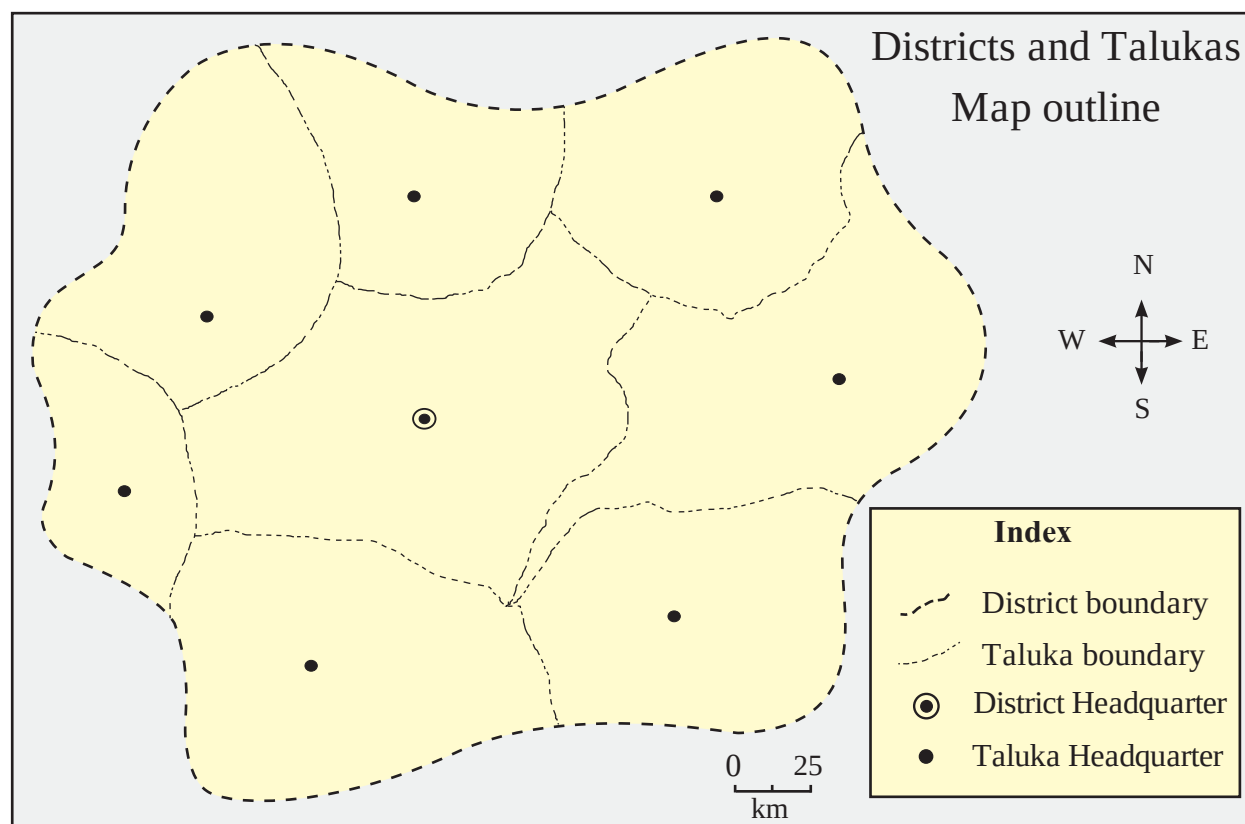
Maps have directions and symbols. Just like our village maps, there are maps of cities. Villages and cities together with form a taluka. Several talukas put together form a district.

A district and taluka map outline is provided as an example for study. The map shows the district headquarter and taluka headquarters. The map also shows the index, direction and scale.



Observe.

With the help of the teacher, observe the map and write answers to the questions.



- Name the directions on the map outline.
- Which symbol indicates the district headquarter on the map?
- How many talukas are there in the given district map?



Let's understand.

Just as many talukas form a district, many districts form a state. There are total 36 districts in Maharashtra state.

A map of Maharashtra state is given below.

The map shows the districts of the state.

Different lines are used on maps to show the areas of talukas, districts and states these are called 'Boundary lines'. This makes it easier to identify talukas, districts, and states.



For map index reading.

The state and district boundaries are shown in the index given on the map. (District boundaries are shown with less thickness and State boundaries are shown with higher thickness.)



Observe.

With the help of the teacher, observe the map and write answers to the questions.



- Find your district and colour it in the map.
- Write the name of your district in the given box.
- With the help of your teacher, write in the given table which district, state or sea lies to the east, west, north, south of your district.

Direction	East	West	North	South
District/ State/ Sea				



We have studied this



- The globe is a replica of the Earth.
- Sun is a star.
- Earth is a planet in the solar system.
- The Moon is a satellite of the Earth.
- Earth is also called a water planet.
- There are four main directions: East, West, North and South.
- A map is a drawing of a region using directions, scale, index, signs and symbols.
- Directions and signs are shown in an index on the map.



Let's Revise

(1) Fill in the blank with the correct word.

1) The large landmass on Earth is called

(a) continent

(b) ocean

(c) bay

(d) sea

2) The direction in which the sun rises is called direction.

(a) West

(b) East

(c) South

(d) North

- 3) In the solar systemhas its own light.
(a) planet (b) satellite (c) star (d) dwarf planet
- 4) When you stand facing east the direction is on your right side.
(a) West (b) South (c) North (d) East

(2) Answer in one sentence.

- 1) Why is Earth called a water planet?
- 2) What is rotation?
- 3) What is a map?

(3) Write answers in short.

- 1) What are landforms? Give two examples.
- 2) Write the difference between full moon day and new moon day?
- 3) What would happen if the Earth stops rotating?

(4) Draw pictures of how the moon looks on the days of the crescent moon, 8th day of the moon and full moon day.

(5) Stand in the centre of a room in your house and list the objects in the directions East, West, North and South.

(6) Find out which direction the buildings on all four sides of your house face and what they are used for?

(7) With the help of your parents, create a map outline of the surroundings of your home.

Activities -

- 1) Find the direction of your house using a compass or a compass in the mobile phone.



Our Green Friends



Observe.

What do you see in the following picture?



Which animals and plants do you see around you? Write their names.

There are trees, birds, animals, fields, houses, roads, vehicles, mountains, lakes, dams, water, soil, stones and air around us. All of these together make up our surroundings.

In our homes, courtyards, and surrounding areas, there are many components. Out of them some are living and some are non living.

Components Around Us



Think

- (1) Vehicles move from one place to the other on the road. Are vehicles living or non-living?
- (2) Fire spreads. Is fire living or non-living?

|| Nature Walk

Observe the plants in your surrounding and note down their information in the table below.

Sr. No.	Name of the Plant	Colour and Shape of Flowers	Colour of Fruits	Colour and Shape of Leaves

Instruction for Teachers: Guide students using various examples of living and non-living components in the surroundings.

Plants cannot move from one place to another place; however, they grow, and new saplings are produced from their seeds and branches. Therefore, we call plants living.

Solve the puzzle.

Find the names of plants in the word grid below and box them.

t	a	m	a	r	i	n	d	z
n	p	a	p	e	e	p	a	l
e	p	n	b	a	n	y	a	n
e	l	g	j	u	j	u	b	e
m	e	o	q	l	e	m	o	n
j	a	c	k	f	r	u	i	t



Try this.

Take seeds like moong, coriander, mustard, or wheat. Plant these seeds in moist soil and observe them daily. Write down what changes you saw.



Let's Understand



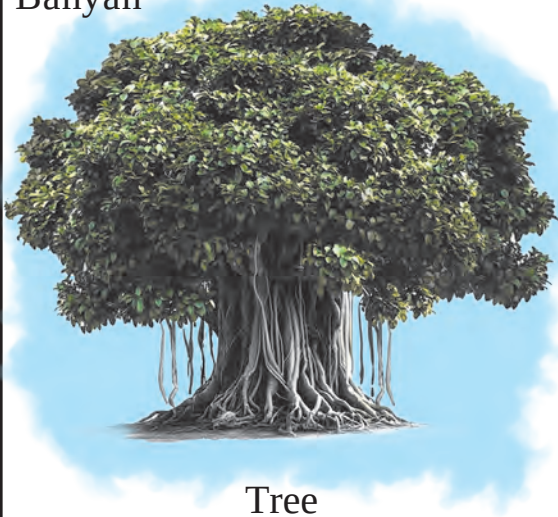
You have body parts like hands, legs, nose and eyes. Similarly, plants also have parts like root, stem, leaf, flower and fruit.





Observe.

Banyan



Tree

Hibiscus



Shrub

Basil



Herb

Jui



Climber



Jackfruit



Mango

**Each
tree is
different**



Flame of the Forest
Flower (Palas)



Golden shower
Flower (Bahava)



Root of Tamarind



Root of Grass



Peepal leaf



Rose leaf

Let's Understand

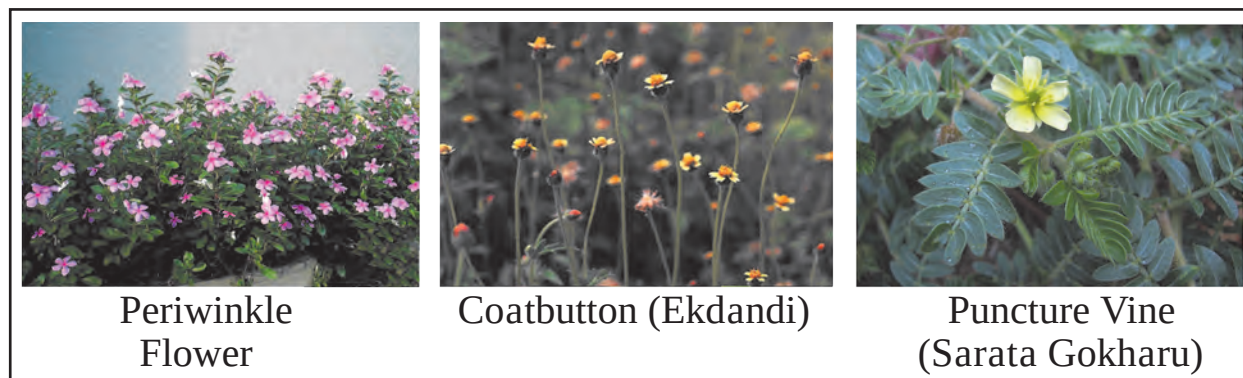
Each tree can be identified separately by its root, stem, leaf, fruit and flower.

Trees - Plants with their great height and strong, hard stems (trunks) are called trees. Examples : Mango, Tamarind, Banyan, Peepal, Jamun, Flame of the Forest (Palas), Indian Coral Tree (Pangara), Red Silk Cotton tree (Katesavar), Coconut and Neem etc.

Shrub - Plant with less height is called Shrub. Shrubs are shorter than trees. But they possess hard and strong stems. Examples : Rose, Carandas (Karvand), Hibiscus, Five-leaved chaste tree (Nirgundi) and Crown flower (Rui) etc.

Herbs – Herbs are shorter than shrubs and have delicate stem.

Examples – Grass, Basil, Touch me not, Periwinkle, Four o'clock (Gulbakshi), Coatbutton (Ekdandi), Puncture Vine (Sarata Gokharu) etc.



Climbers – Plants that have delicate, flexible, soft stems are called climbers. Some of them grow with the supports like stick, walls or trees Examples – Jui, Jai, Gokarna twine around the support.

Climbers like peas, grapes and cucumbers have tendrils to grow with the support. Some climbers grow along the ground are called as creepers. Examples – Pumpkin, Watermelon, Muskmelon, Strawberry.

Jui vine	Cucumber vine	Watermelon vine
		
Climbs with support	Climbs with the help of tendrils	Spreads on the ground

Observe different plants in surroundings. With the help of your parents or teachers, complete the table given below. One example is given in the table.

No.	Tree	Shrub	Herb	Climber
1	Mango	Carandas (Karvand)	Basil	Jasmine
2				
3				

Some plants have only one leaf on their stalk, while some plants have many small leaflets on their stalk.



Leaf of guava



Leaf of tamarind

Some plants have only one flower on their stalks, while some plants have a bunch of flowers. Some flowers have fragrance, while some do not have fragrance.



Lotus flower

Hibiscus flower

Rangoon Creeper
(Madhumalti)

Crown flower
(Rui)

Observe the plants around you. With the help of your parents or teacher, complete the table given below. Draw pictures of the plants you observe.

Single Leaf on the stalk	Single flower on the stalk	Many leaves on the stalk	Bunch of flowers on the stalk	Fragrant flowers	Flowers without fragrance
Jackfruit	Rose	Touch-me not plant	Thousand Petal Jasmine	Coral Jasmine	Sunflower

|| Let's Understand.

Plants make their own food with the help of air, water, and sunlight.



|| Let's Understand.

We use parts of plants as food.



Grasses that yield grains are called cereals. Example – wheat, jowar, bajra, maize, rice, etc.

Other than wheat and rice, grains that have small-sized seeds are called millets. They are rich in nutrients. Examples – amaranth, barley etc.

The plants which are used to prepare crushed pulses (dal) are called pulses. Example – urad, gram, masoor, moong, peas, tur, wal, etc.

Plants whose seeds are used to extract oil are called oilseeds. Example – groundnut, flaxseed, sesame, safflower, sunflower seeds, etc.



Think

What do we and other living get from trees?



Ask the elders in your house how medicinal plants are used as home remedies for some ailments and write it in your notebook. For example – Aloe vera, Basil, Turmeric, Ginger, etc.



Think

- Do trees breathe like us?
- Do trees also sleep?



Do you Know?

Tamhan is the state flower of Maharashtra

The Tamhan is also known as Jarul or Bondara. This plant have other names, like Bondara, Taman, Bondra and Bundra. Botanists have appropriately given the name '**Pride of India**' to Tamhan tree. This tree blooms twice a year.



Tamhan - State Flower

Pleasant Kitchen Garden

A kitchen garden means growing vegetables and fruits essential for our daily needs by using available space around the house. In this garden, vegetables such as brinjal, tomato, suran, cabbage, cauliflower, lady finger are grown in beds. In the same garden, aloe vera, tulsi, ajwain, turmeric, ginger, lemongrass, mint and other medicinal plants are also grown. In places where climbers and creepers can spread, plants like cucumber, bottle gourd, ridge gourd, bitter gourd, snake gourd are grown. Leafy vegetables are also grown, Example : fenugreek, spinach, chakwat, ambadi, rajgira, red amaranth, dill, etc. In the same way, a kitchen garden can also be prepared in the open space available in schools.



Do you know?

Ayurvedic medicines have been used in India for thousands of years; they primarily use plants.

Example – Turmeric, Tulsi, Adulsa, Murudsheng, Gulvel, Clove, Cinnamon, etc.



Instruction for Teachers: With the help of learners, develop kitchen garden using available space in the school.

Let's Understand.

Observe the picture of the forest given below and understand the uses of forests.



Get Medicinal Plants

Get Pure Air

Prevents soil
erosion

It keeps the rainfall
proper

We get wood for
constructions and fuel.

Animals get shelter

Get fruits, roots and tubers,
wild vegetables, wild fruits

During the summer days sometimes dry branches of trees rub each other, that leads to a forest fire. Sometimes forests catch fire due to people lighting bonfires near the forest or throwing away burning matchsticks. A fire in a forest is called a Forest fire. Forest fire harms the lives of plants and animals in the forest.



Do you know?

The wood of the Kumbha tree is extremely hard. It takes a long time to ignite. If a forest fire occurs, these trees can create an obstacle that helps prevent the fire from spreading further. For this reason, these trees should be planted along the boundaries of forests and in other locations.



Let us protect forests

- Sacred Grove (Devarai) – A sacred grove is a small forest patch protected by the people of a village. Sacred groves have been found in Maharashtra from many years. In different states of India, sacred groves are known by different names.
- Protected forests – some forests are protected by government.

Introduction to Wild Vegetables



Kartoli



Takla



Kuda



Ambushi



Pathari



Kena



Panacha Ova



Bhui Amla



Bamboo



Aaghada



Katemath



Chawal



Gholbhaji



Aambadi



Suran



Mataru/ Karanda



We have studied this



- There are many components in our surroundings. They include living and non-living.
- Living include plants and animals.
- Every tree is identified differently based on its root, stem, leaf, flower, and fruit.
- Various plants like trees, shrubs, herbs and climbers are seen in our surroundings.
- Plants prepare their own food with the help of air, water, and sunlight.
- A backyard garden means using the available space around the house to plant vegetables and fruits to fulfill our daily needs.
- Protecting the forest is our responsibility.



Let's Revise

(A) Mark the correct option with (✓)

(1) What are the trees that grow very tall and have strong trunks called?

- | | |
|-----------|-------------|
| (a) Herb | (b) Tree |
| (c) Shrub | (d) Climber |

(2) What are plants with delicate, flexible and soft stems called?

- | | |
|-----------|-------------|
| (a) Tree | (b) Herb |
| (c) Shrub | (d) Climber |

(3) Identify which of the following is a living?

- | | |
|----------------|------------------|
| (a) Bicycle | (b) Mobile phone |
| (c) Guava tree | (d) Book |

(B) Match the pairs.

Group A	Answers	Group B
Tulsi		Cereals
Jujube		Use as medicine
Chilli		Fruit
Wheat		Oilseeds
Groundnut		Spice

(C) Observe two different trees. Note down in the following table.

Characteristics	Tree 1 (.....)	Tree 2 (.....)
Colour of leaves		
Colour of fruits		
Structure of stem		
Colour of stem		
Colour of seeds		

(D) Identify the various parts of the plant in the picture. Draw a picture of a sapling with their help.



(E) What will happen if ?

- (1) Vegetables are not available for a month.
- (2) Trees are cut down indiscriminately.

(F) Think about it.

Why would a leopard leave the forest and go towards human habitation?



Activities

- Collect seeds of different fruits and prepare seed balls from them. Plant them in the soil during the rainy season.
- Prepare a school kitchen garden under the guidance of the teacher by sowing seeds or planting plants in different patterns according to the available space.



Human Shelter



Observe.

Observe the pictures given below and answer the questions.



- Where does the tiger live?
- Where is the nest of the Baya Weaver?
- How do birds build their homes?
- Where do cows and buffaloes live?
- With the help of a friend, observe the habitats of animals and birds in your area and record them in a notebook.

Why we need shelter?

Every living thing on Earth needs shelter/home. Everyone needs a home to protect themselves from heat, wind, rain and extreme cold. Every living thing needs a shelter which is its home. A shelter provides protection. Ants also build their own homes, called as anthills. All living things in nature need shelter.



Can you tell!

- Where do humans build their houses?
- Where do animals find shelter?
- Why do people live near rivers?



Let's find out.

- What materials are used to build a house?
- What materials are used to built houses in your surrounding areas?



Kuttcha house



Pucca house

Humans build houses using materials available in their surroundings for protection. Different types of houses are found in our area. For example, in rural areas, people use local stones, bamboo, wood, grass, cow dung, leaves, and roof tiles to build houses.



In urban areas houses are permanent and built using modern materials. For example, materials such as cement, sand, iron, etc. Houses in the cities are often multi-storied.



Humans choose safe places to build houses.

To stay safer, people live together in groups or settlements (*wadis*).

In rural areas, houses are made from materials available in surroundings. For example, wood, soil, stones, a hut made up of bamboo, tiled roof houses etc.

In urban areas, houses are permanent buildings. Made of materials like cement, iron and sand. These buildings are often tall and large.



Can you tell!

How do you identify a kuttcha house or pucca house?

Draw a picture of your imaginary house in the space below.



Observe.

With the help of your friends, observe the types of houses in your area and write about them in three to four sentences.



Perform the activity.

Materials used for building houses include wood, bricks, cement, sand, stones, tins steel, iron, tarpaulin, leaves, branches, soil, bamboo, gravel and water, etc.

According to the above list, divide the materials required for kuttcha houses and pucca houses in the given table-

Materials needed for a kuttcha house	Materials needed for a pucca house

Kuttcha houses are made from materials like soil, bamboo, grass, leaves, stones, etc. These houses are built by using materials from the surroundings. These houses have less durability. For example, mud houses in rural areas.

Pucca houses are made from materials like bricks, cement, iron. Such houses have more durable. For example, the houses in the urban areas.



We have studied this



- Every animal on earth needs a home for shelter.
- Shelter/houses protect humans.
- Houses in rural areas are mostly kuttcha. Houses in urban areas are mostly Pucca.
- Kuttcha houses are built using materials from the surrounding areas. Therefore, their durability is poor.
- Pucca houses are made of bricks, cement and iron. They are more durable.



Let's Revise

(1) Fill in the blank with the correct word.

- 1) Human needs to protect from sun, wind, rain and cold.
(a) shelter (b) food (c) clothing (d) companionship
- 2) The houses constructed from wood, soil, rock and bamboo, etc material are houses.
(a) pucca (b) kuttcha (c) multi-storeyed (d) skyscraper
- 3) Houses in urban areas are mainly constructed using
(a) sticks and clay tied (b) soil (c) cement (d) bamboo
- 4) Ants build their own homes for shelter, which is called as
(a) hole (b) ant hill (c) nest (d) cave

(2) Observe the following pictures and classify the houses in the pictures as natural or man-made and as kuttcha houses or pucca houses. (Tick (✓) the appropriate column.)

A picture of the house	Natural house	Man-made house	Kuttcha house	Pucca house
				
				
				
				
				

(3) Answer in one sentence.

- 1) What does every animal on Earth need to live?
- 2) What materials are needed to build a house in rural areas?
- 3) Which type of houses are more durable?

(4) Write answers in short.

- 1) What materials were used to build your house?
- 2) Write the difference between kuttcha houses and pucca houses.
- 3) If you want to build a house, what materials would you use?

(5) The number of houses in the area is increasing. What are the reasons for this? What will be the impact of it on nature?

(6) List and write down the materials used to build the house in the picture given below.

Activities -



- 1) With the help of teachers or parents, make a model of a kuttcha house or a pucca house. Using clay / stone / paper / cardboard / ice cream sticks / glue / gum.



Our Waste - Our Responsibility



Observe.



Teacher: Have you gone for a walk in the garden with your grandparents?

Yash: Yes! I have been, it's a lot of fun in the garden.

Meena: Even I have gone there.

Teacher: Very nice, garden is thoroughly clean. There are beautiful trees, flowers and butterflies. There is no garbage anywhere in the garden. Even if there is garbage, we throw it in the dustbin. If we throw the garbage in the right place, our house, school and surroundings will be clean.

Gauri: Teacher, if each of us throws garbage in the bin, our surroundings will remain beautiful.

Teacher: Yes! Absolutely right...



Can you tell!

How do you help your parents to keep your home clean and beautiful?

- List the reasons why waste is generated in your area.
- With the help of your teacher, list the effects of garbage in your area.

This is how waste is generated.

See the picture below..



The things we throw away that we don't want are called 'waste'. Waste is generated in every work we do and is seen lying around us. For example, household waste, leftover vegetables, fruit peels, unused appliances, old T. V., pieces of wire, electrical appliances, etc. We sometimes throw unwanted things anywhere. Due to this, waste is generated in our surrounding areas.

If garbage is left in our area, it rots and water accumulates in it and as a result, insects like flies and mosquitoes spread many diseases. This affects our health. People fall sick.



- Observe and discuss the picture above.



Always remember this.

- Let's throw waste only in the dustbin!



Can you tell!

- Where do you throw your household waste?
- What can we do to reduce waste?



Komal went to the hospital with her mother. Since she was not feeling well, she did not feel like doing anything. Komal sat in the hospital and started observing around. An uncle swept the entire hospital clean using a long broom. He threw the dry waste in the blue dustbin with a dustpan. He removed the dust with a long broom. Komal remembered that they use a vacuum cleaner at home. Then the uncle took water in a bucket and added some phenyl into it. He took a cloth and wiped the floor clean. The entire hospital was clean. List the items used for maintaining cleanliness mentioned in the above paragraph.



Always remember this.

- 1) Let's use cloth or metal items instead of plastic items.
- 2) Instead of using plastic bags, use cloth or paper bags.
- 3) Let's give your old toys, clothes and books to those who are in need.
- 4) The more things we buy, the more things we throw away and the more waste we create. Let's buy only what we need. Let's try to reduce waste as much as possible.

|| Do you do this?

- 1) New notebook can be made at home by collecting the blank pages from old notebooks.
- 2) When giving gifts, cloth or newspaper can be used to wrap them.
- 3) Useful but unwanted items from your home can be donated as gifts. For example, in some cities/villages there are 'Walls of Humanity' and similar centres. These items are given to the needy people through such centres.

Toys or decorative items can be made using old newspapers, old calendars, bottles, cans, etc. For this, take help from the elders at home.

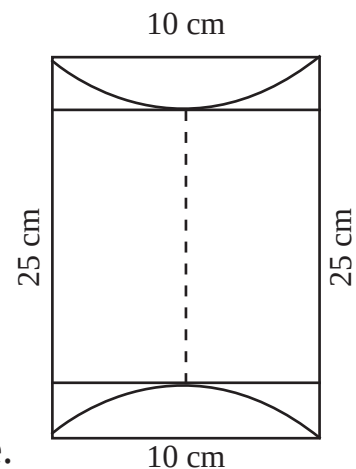
(Durable items can be made from scraps.)



Perform the activity.

Let's make an envelope out of paper.

- 1) Take a paper of size 25 cm x 10 cm. Make a fold on both sides and at the centre.
- 2) Fold the top and bottom sides as shown in the figure.
- 3) Stick the edges of the paper on both sides with gum along the line (-----) as shown in the picture.
- 4) Use the envelope after the glued part has dried.



At some places, separate bins are kept for different types of waste.

Leaves, flowers, vegetable and fruit peels, eggshells, etc. are thrown in the green trash bin. This waste decomposes quickly and mixes easily with the soil. This is called 'wet waste'. It makes a good manure for plants. Metal, glass and plastic are thrown in the blue trash bin. This is called 'dry waste'.

In big cities like Mumbai, there is a separate system for collecting plastic bottles at various places, including railway stations. Many new items can be made from them. These items can be reused in many places. Roads can be built using unwanted plastic. Such efforts have been made in Pune and Raigad in Maharashtra. By doing this, the surroundings can be kept clean.

In urban areas, different coloured bins are available for separating wet and dry waste, while in rural areas, all waste is dumped in a specific area of the farms / garden by digging a pit. This waste is used to make manure.



Do you know?

- In India, January 30th is celebrated as National 'Cleanliness Day'. Saint Gadge Maharaj has continuously convinced the importance of cleanliness to the people. A 'Cleanliness Campaign' has been started in the state of Maharashtra with his name.
- The 'Swachh Bharat Abhiyan' has been launched in India since October 2, 2014.



Create and write a slogan like 'My school, clean school' in the box below.

Instructions for teachers:

Organize workshop to make sustainable products from waste and involve students and parents in it.

Get information :

Get information about the 'Cleanliness Campaign'.
'Nirmalgram Award'.

Clean village is a scheme launched by the Maharashtra state in various villages. The main purpose of this scheme is to ensure cleanliness in the villages. It received a very good response. Entire Maharashtra was inspired by the cleanliness achieved in many villages. Many villages are famous as 'Nirmalgram'. These include *Nidhal* in Satara district, *Ralegan siddhi* and *Hiwre Bazaar* in Ahilyanagar district, *Chinchala*, a tribal village in Buldhana district, *Patoda Budruk* in Chhatrapati Sambhajnagar district, and *Katewadi* in Baramati taluka in Pune district. Apart from these, there are many such villages in Maharashtra.

Household waste is thrown into dustbins. The waste management of many such households is done by the Gram Panchayat, Municipality and Municipal Corporation. You must have seen a grabage collecting vehicle.



Do you know?

In recent times, the use of mobile phones, computers, television sets, CDs and other items in every household has increased tremendously. When these items become permanently damaged, the waste of such useless items is a big problem. Such waste is called 'e-waste'.

The waste generated from human or animal treatment processes in hospitals and laboratories is called 'bio-waste'. The problem of managing this waste is also very big.



Let's discuss.

- Discuss and write about two activities you do to keep your surroundings clean with the help of your teacher/parent.
- Find villages under the 'Nirmalgram Scheme' in your area and visit one of them with your teachers.



We have studied this



- We should always keep our home, school and surroundings clean.
- If there is garbage in your area, throw it in the dust bin.
- Selected items from dust bin can be recycled to make new items.
- Maharashtra Government is implementing 'Clean Village Scheme' / 'Nirmalgram Scheme'.
- Durable goods can be made from waste materials.
- Waste management in the village is done at the administrative level.
- Wet and dry waste should always be collected separately.



Let's Revise

(1) Fill in the blank with the correct word.

- 1) If waste is burnt it creates and mix with the air.
(a) Poisonous gases (b) Toxic dyes
(c) Toxic liquid (d) Toxic substances
- 2) From wet waste..... is prepared.
(a) Manure (b) Rockcall (c) Soil (d) Water
- 3) If the computer or television set in the house is out of order, it is considered as waste.
(a) wet (b) dry (c) e-waste (d) Bio waste
- 4) In India is celebrated as 'National Cleanliness Day'.
(a) 12th February (b) 30th January (c) 10th June (d) 15th August

(2) What is different and why?

- 1) Pieces of paper, peanut shells, fruit peels, plastic toys
- 2) Wire pieces, wood sawdust, clay balls, tree leaves

(3) Write answers in short.

- 1) How is waste generated?
- 2) Write the difference between wet waste and dry waste.

3) How can waste be managed?

4) What will you do to keep your surroundings clean?

(4) Visit your local weekly market with your parents. Describe the garbage scattered there.



(5) Write two ideas that recycle waste.

(6) Perform the activity

1) Clean the sitting area of your classroom.

2) Help your elders to clean the house every day.

Activities

- Organize the following activities in your school by interacting with students under the guidance of teachers.
- Celebrate 'National Cleanliness Day' on January 30th at your school.
- Organise a 'Clean Classroom, Beautiful Classroom' competition in school.



Let's Be friends with Animals



Observe.

Fill the ☐ below living things in green and ☐ below non-living things in red.

 ☐	 ☐	 ☐
 ☐	 ☐	 ☐

Many types of animals are found around us. Some are big, some are small. Some walk, while some fly in the sky. We can make different groups of these animals.

Groups of Animals Based on the Number of Legs

Observe the animals in the pictures. Write their names in the table below as instructed. Besides these, write the names of other animals you know in your notebook.

			
Peacock	Monkey	Horse	Tiger
			
Millipede	Scorpion	Spider	Centipede

Two-legged	Four-legged	Eight-legged	More than eight legs

- Many land animals have legs for walking. Animals have different number of legs.
- Human being walks on two legs, while animals like deer, cows, elephants, and rats walk and run on four legs.
- Lizards, crocodiles, and chameleons have to crawl because of their short four legs, whereas snakes have no legs at all.
- Birds have two wings for flying and two legs for walking on land.
- Insects like houseflies, beetles, and mosquitoes have six legs and also have two wings.
- Ticks, scorpions, and spiders have eight legs, while crabs and lobsters have ten legs. Centipedes and millipedes have more than ten legs.
- Fish have fins for swimming in water; however, the webbed feet of frogs, ducks, and water turtles help them swim.

Group of Animals Based on their habitat.



We live in nests and fly in the sky.



We live in the forest and caves.



We live in water.



We live in burrows.



We live in trees.



We live on land.



Some animals live on land and some live in water. Snakes, rats, porcupines (salinder), and rabbits stay safe by making burrows in the ground. Ants and termites build mounds (anthills) out of soil and live in them. Many forest animals like tigers, lions and foxes live in mountain caves. Monkeys live on tree branches, while deer live in the shelter of tall grass and bushes.

Some birds build nests on trees. Example : Weaver bird, Tailor bird, etc. Some birds live in hollow spaces (cavities) within tree trunks. Example: parrots, owls, etc. Some birds live in mountain crevices. Example : bats.

Fish and hippopotamus live in water. Crocodiles, alligators, turtles, frogs, and ducks live in water for sometime and on land for sometime.

Groups of Animals Based on their Food Habits

Every animal eats different food. Some animals use parts of plants as food, while some animals eat other animals, while some animals eat insects.

The circle shows pictures of food of animals. Identify and write the name of the food for each animal in the boxes below their pictures.



Herbivorous Animals : Animals that eat plant parts like grass, leaves, fruits, and branches are called herbivores. Examples : Deer, Elephant, Buffalo etc

Carnivorous Animals : Animals that eat the meat of other animals are called carnivores. Examples : Tiger, Lion etc

Omnivorous Animals : Animals that eat both plant parts and the meat of other animals are called omnivores. Examples : Human, Monkey, Sparrow etc.

Which other animals like these do you know?



Do you know?

- (1) A mongoose doesn't just eat snakes; it also eats small insects, mice, bandicoots, frogs, crabs and many other animals.
- (2) Birds like the Drongo and Bee-eater eat insects. Insects like the Praying Mantis and Dragonfly also eat other insects.

Whom Are We Like?

Observe the pictures given below and write.



Shrew



Leopard



Tiger



Human



Hyena



Porcupine



Fox



Gorilla

- (1) We are like rats :
- (2) We are like cats :
- (3) We are like monkeys :
- (4) We are like dogs :

Various types of animals are found around us. Many animals look similar to each other, with only slight differences in their body structure. Foxes, dogs and wolves have similar body structure. Rhinoceroses, elephants, hippopotamus have a similar physique. Tigers, leopards, and cheetahs have a cat-like body structure. Monkeys, chimpanzees, and humans also have a significant similarity. Find and write more such examples.



Do you know?

Animals that move around during the day are called diurnal. Examples: Monkey, Butterfly, etc. Animals that move around at night are called nocturnal. Examples: Bat, Cockroach, Owl, etc.



Think

Is a human diurnal or nocturnal?

A bird smaller than a sparrow, a bird same size of a sparrow, a bird larger than a sparrow, paste these picture in the boxes given below.



A bird smaller than a sparrow



Sparrow



A bird same size of a sparrow



A bird larger than a sparrow

Parts of a Bird Body



Instruction for Teachers: Guide students to note down which birds and animals they see in their surroundings. Tell them the names of unfamiliar birds and animals.

|| Let's Understand

- (1) Birds lay eggs.
- (2) Their bones are hollow and light.
- (3) They have air sacs in their body.
- (4) Their eyesight is sharp, and they can also hear well.

We the tiny six-legged insects



Beetle



Potter Wasp



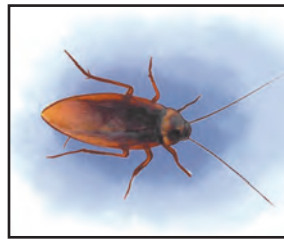
Butterfly



Dragonfly



Housefly



Cockroach



Ant

Animals that have six legs are called insects. Many insects have wings. But some insects like lice and fleas do not have wings.



Think

Is it right or wrong to play with a dragonfly by tying a thread to its tail?
Explain with reasons.

Instruction for Teachers: Teachers should play sounds of various animals on a mobile phone or speaker and ask students to identify the animals. The learners who gives the most correct answers should be felicitated as 'Animal Friend'.



Do you know?

Dung Beetle : The dung beetle lives in fields. It is blackish or reddish in colour. Its front legs are sword-shaped with thorns on them. Its back legs are as long as or longer than its body. The dung beetle prepares a ball of dung. It pushes a ball larger than its own size using its back legs. Because of this, it is a very powerful insect. It goes into the fields, digs holes in the ground, and buries the dung ball there. This cleans the surroundings.

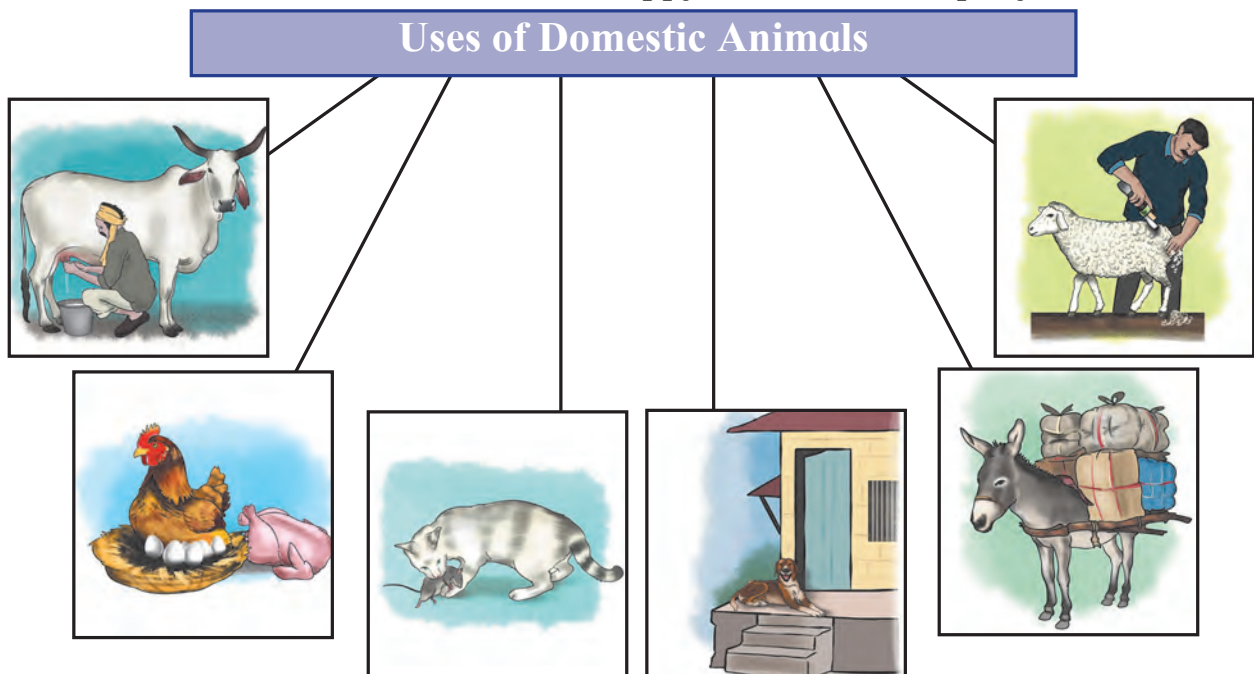
Like the earthworm, the dung beetle is also a friend of farmers.



|| Let's Understand

Our Domestic Animals!

Animals kept in the house or on the farm are called domestic animals. Cows, buffaloes, and goats give milk. Sheep provide milk and wool. Animals like oxen, horses, male buffaloes and donkeys are used for carrying loads and doing heavy farming work. Chickens, ducks, and emus are kept for eggs and meat. A cat keeps rats away from our homes. A dog guards the house. We love domestic animals and become happy with their company.



Instruction for Teachers: Organize a role-play where students act as domestic animals and family members to demonstrate how to take care of them.

What will you do?

You see a puppy getting drenched in the rain.

Care of Domestic Animals:

- Provide clean water and food to animals.
- They should be vaccinated on time.
- Their living area should be kept clean and airy.
- They should be treated with love.



Try this.

Just like domestic animals, we should also take care of other animals and birds in our surroundings.

- Prepare a decorative bird-bath. Birds use it to drink water, especially during summer.
- Take a shallow and wide container.
- Place some stones in it so that birds can sit on them.
- Fill it with fresh water. Keep the container in the courtyard or on the terrace.
- Do not forget to change the water regularly.
- Scrub and clean the container twice a week. Do not use this scrub for cleaning household utensils.



Fun Facts

- Some fish go near small "Cleaner Fish" to get themselves cleaned. These small fish eat the dirt on their bodies.
- Monkeys remove and eat lice from each other's bodies.
- Animals like cats, dogs, and cows lick their bodies with their tongues to clean themselves.
- Many animals and birds clean their bodies by splashing in water. For example—Buffalo, Elephant, Sparrow, etc.

Each Other's Companions



The banyan tree in the picture is home of various animals and birds. These animals and birds eat the small red fruits of the banyan tree. Cows, buffaloes, and goats love to eat the leaves of some trees. Insects drink nectar from flowering trees. Does this bother the tree?

Trees also need these animals. When butterflies and honeybees suck nectar from flowers, pollen grains stick to their legs. When they move to other flowers, these pollen grains stick there, helping to form fruits. New saplings grow from the seeds of these fruits and eventually turn into trees. Additionally, seeds are dispersed through the droppings of birds and animals.



Think

How do plants benefit from the hair on bodies of animals?



Do you know?

In ancient times, children used to stay with their teachers (Gurus) in a Gurukul to learn. They gained knowledge from their Gurus on how to take care of plants and animals along with themselves. Because of this, the plants and animals in those areas used to remain safe.

Do you recognize us?



Green bee eater



Black Drongo



Laughing Dove



Oriental magpie robin



Fantail



Yellow - footed green pigeon



Yellow - crowned woodpecker



Indian grey hornbill



Stripped tiger butterfly



Preying mantic



Giant wood spider



Weaver ant



Indian giant squirrels



Mongoose



Skink



Greater Indian Fruit Bat

Note down which of these animals are found in your surroundings.



We have studied this



- Many types of animals are found around us. We can make different groups of these animals.
- Animals can be grouped based on the number of legs, where they live, and their food habits.
- Animals that have six legs are called insects. Example- Butterfly, Beetle, Mosquito etc.
- Animals kept in the house or on the farm are called domestic animals.
- Domestic animals help us in various ways. We should always take care of them.
- All living things depend on each other to fulfill their needs.



Let's Revise

(A) Circle the correct ☐ option.

(1) An animal with eight legs:

(a) Scorpion

(b) Crab

(c) Centipede

(d) Mouse

(2) An animal that lives in a burrow:

(a) Parrot

(b) Cow

(c) Rabbit

(d) Cock

(3) A domestic animal:

(a) Wolf

(b) Fox

(c) Crow

(d) Cat

(B) Who is the odd one out? Why?

(1) Ant, Mouse, Peepal, Sparrow

(2) Cow, Cockroach, Hen, Honeybee.....

(3) Potter Wasp, Butterfly, Beetle, Parrot.....

(4) Algae, Water, Fish, Crab

(5) Monkey, Human, Bat, House

(C) Observe the animals in the pictures given below and write their names in the table based on the information provided.



I have four legs ----- ----- -----	I live on land ----- ----- -----	I eat grass ----- ----- -----
I have six legs ----- -----	I live in water ----- -----	I eat fruits ----- -----
I have eight legs ----- -----	I live on trees ----- -----	I eat animal meat ----- -----
I have ten legs ----- -----	I fly in the air ----- -----	I eat insects ----- -----

(D) Why is this so...?

- (1) Butterflies have wings, but they are not birds.
- (2) Ticks, Centipedes, and Crabs are not insects.

(E) Write characteristics of your favorite animal?

(F) Create Animal Identity Cards



What is my name?
Where do I live?
How many legs do I have?.....
What do I eat?



What is my name?
Where do I live?
How many legs do I have?
What do I eat?.....

Let's Play a Game

Teachers should show pictures of various animals to students. Ask them to identify the animal in the picture and make its sound. Praise students who mimic the sounds correctly.

Activity

- Use different shapes of fruits and vegetables to create models of animals, birds and insects.



Our Community Life



Observe.



1. List the items used in the house from the picture.

2. Write the names of the items used in your home and their uses in the table below.

Household Items	Uses
Chair	To sit
.....	
.....	

1. Name the kitchen utensils.

2. Complete the table.

Kitchen Item	Uses
Rolling Board	
Wok	
Cup	
Knife	
Mixer Grinder	



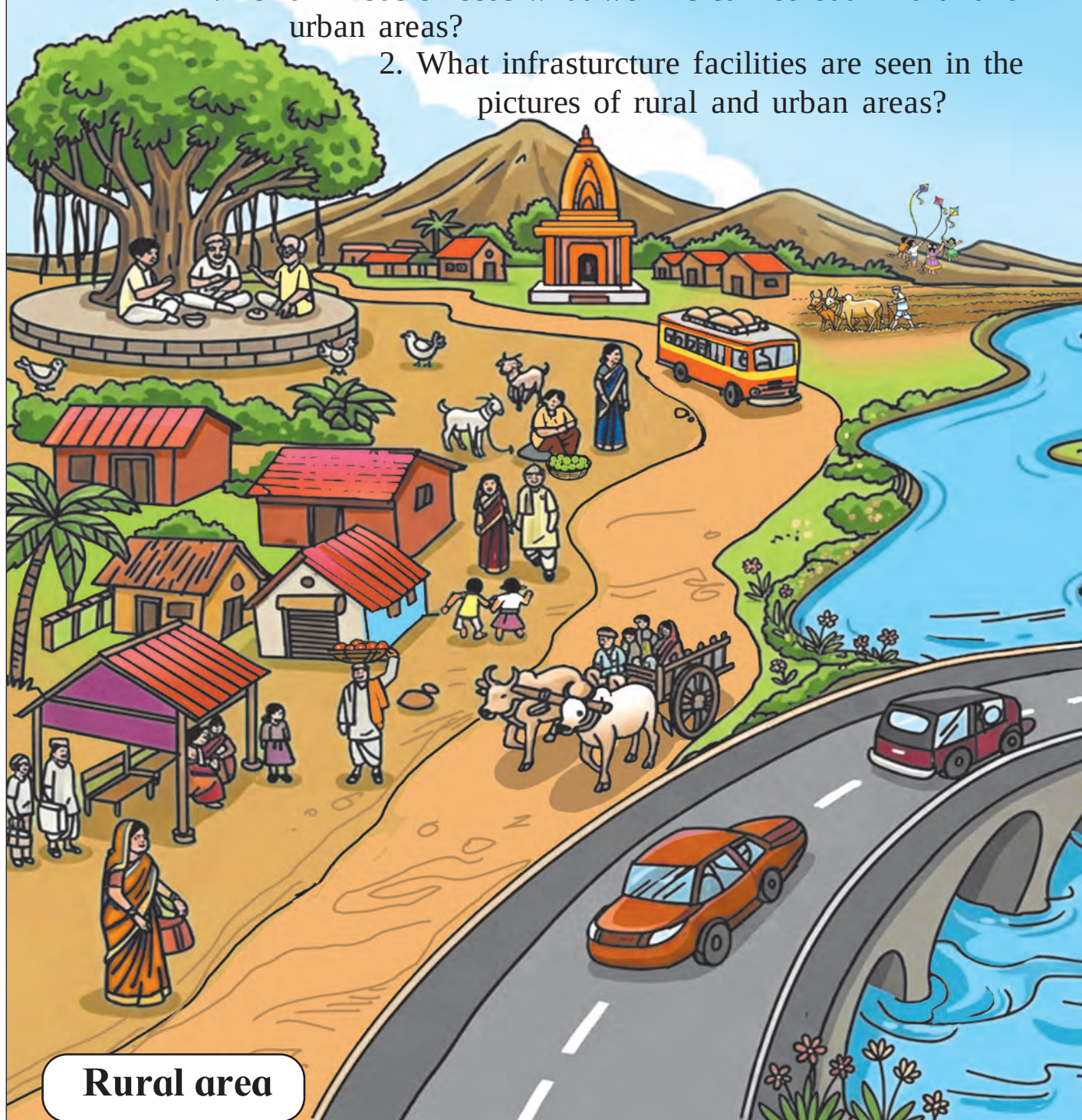


Let's discuss.

The following pictures show some of the infrastructural facilities in a village and a city. Infrastructure is the basic facility required for the smooth running of people's daily lives and for the development of a village or city. Observe the pictures given below and discuss in class with the help of the following questions.

1. To fulfill basic needs what work is carried out in rural and urban areas?

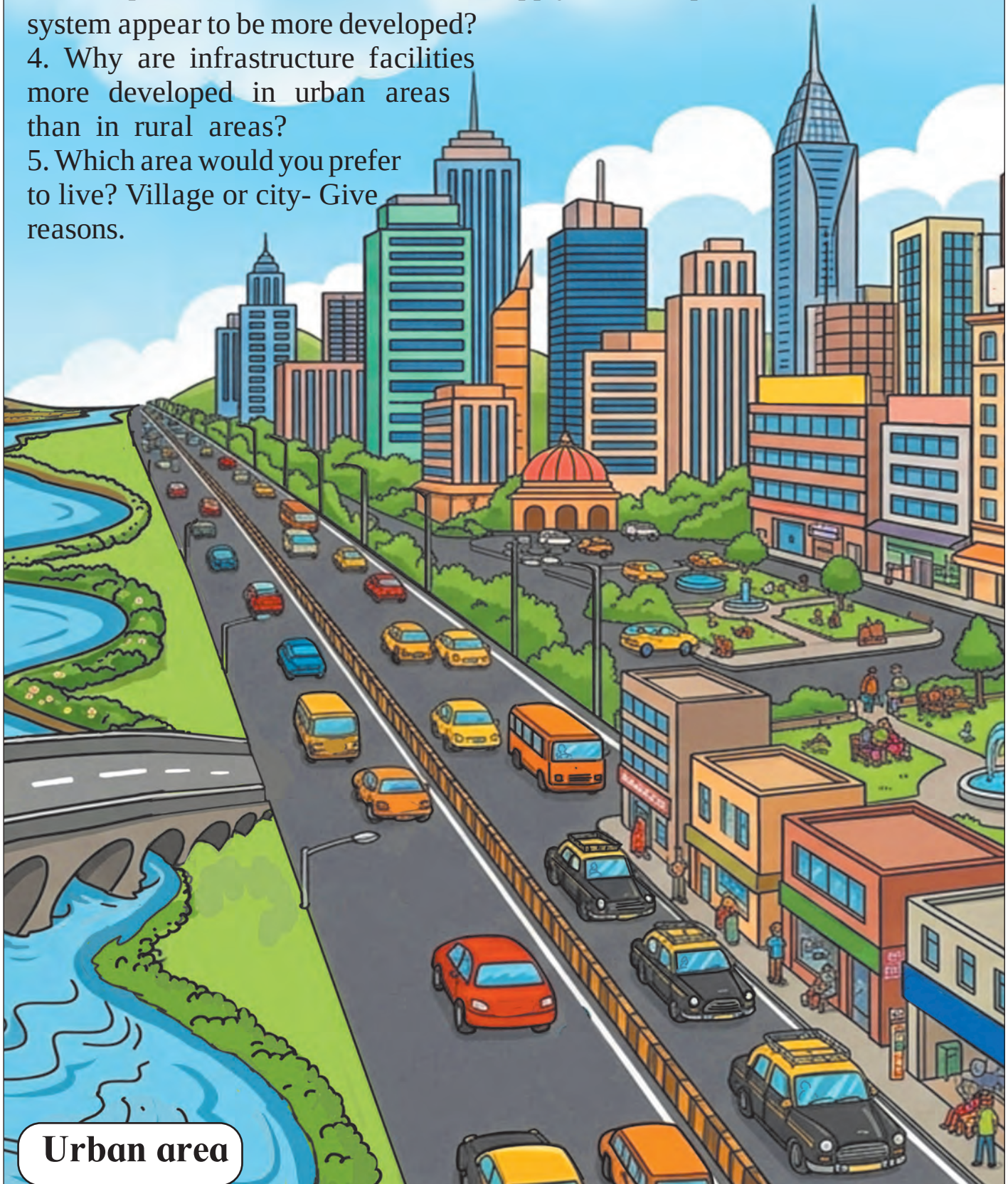
2. What infrastructure facilities are seen in the pictures of rural and urban areas?



Rural area



3. In the picture where do roads, water supply and transportation system appear to be more developed?
4. Why are infrastructure facilities more developed in urban areas than in rural areas?
5. Which area would you prefer to live? Village or city- Give reasons.



Urban area

|| Complete the table.

Previously used pots	Utensils used in modern times	
1.	1.	
2.	2.	
3.	3.	
4.	4.	

Natural conditions affect the language, dressing, food, folk art, festivals and professions of the people. Different natural conditions affect the living conditions of people in those areas. This is called 'folk life'.



Can you tell!

From the pictures given on pages 88 and 89, tell the differences you found between urban and rural areas.



Let's understand.

Urban life:

People in urban areas use modern goods and machines to a greater extent. Most people do business or service. Various means of transportation are used. Their life is hectic.



People are seen eating together in restaurants as well as having their daily meals at home. They also go to malls and big stores for shopping. Various facilities are available for entertainment and recreation. Modern medical facilities are easily available in cities.

Rural life:

Most people in rural areas are engaged in agriculture. Their houses are made up of thatched roofs and mud. The diet mainly consists of millet flatbread (*bhakari*), *chapati*, rice, and vegetables.



Fairs and festivals are celebrated in villages. Folk drama, folk songs and folk art are the characteristics of rural culture. Entertainment facilities are fewer than in cities. Medical facilities are also less available in rural areas. In recent times, primary health centres have been started in many villages.



Can you tell!

- List the festivals celebrated in your area.
- Make a list of the costumes worn in your area.
- Make a list of the food items in your diet in the table below.

Breakfast/breakfast items	Daily meal	Festive meal



Let's understand.



The life of people is influenced by their surroundings. Their homes, clothing, food, and occupations change according to the surrounding area. The languages spoken and folk art in different areas are varied. Festivals and celebrations are celebrated according to local traditions. All these things change according to the local conditions and that's why there is diversity in people's lives.



Perform the activity.

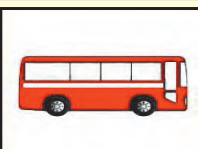
With the help of teachers / parents / friends, find out which festivals are celebrated by the people living near the coastline.



Observe.

Observe the picture and write the answers to the questions.

Vehicles



- Which vehicles are used in rural areas?
- Name the vehicles that run at low speed.
- Which vehicle in the picture would you use to travel on water?
- Name the vehicle used for air transport.
- Name the public vehicles.



Perform the activity.

- Find out information about modern means of communication with the help of teachers/parents.

Mobile phones allow instant messages to be sent and received. Radio, television and newspapers are used for information, news and entertainment. Post or courier is used to send postcards, letters and parcels. Earlier, postcards and letters were used for fast communication. Telegrams were used for sending urgent messages. In recent times, communication has become instant with the help of telephones, mobile and the internet.

- Observe the picture below and answer the questions.



- List the means of communication you see in the picture.
- Discuss which means of communication were used to send urgent messages in the past.



Let's understand.

The speed of communication has increased tremendously due to advances in technology. In the past, when there were no phones or mobile phones, one had to wait a long time to send a message, but now the situation has changed. Due to advanced facilities, messages are now sent and received instantly.



We have studied this



- The influence or impact of environment on the quality of life of people is visible.
- There is diversity between urban and rural life.
- Use public transportation to protect our environment and nature.
- In recent times, the speed of communication has increased due to technological advancements.
- We celebrate festivals according to our local conditions.



Let's Revise.

(1) Fill in the blank with the correct word.

- 1) is a modern means of communication.
(a) letter (b) e-mail (c) newspapers (d) public announcement
- 2) For fast and quick travel, transportation is used.
(a) railways (b) bus (c) aeroplane (d) cycle
- 3) Transportation facilities are widely available in.....area.
(a) urban (b) rural (c) hilly (d) snow covered
- 4) Folk drama, folk songs and folk art mainly appear in public life.
(a) urban (b) advanced (c) metropolitan (d) rural

(2) Answers in one sentence.

- 1) What means of public transportation is used in your area?
- 2) What vehicles are used for water transportation?
- 3) Write the names of any two means of communication used for fast messaging.

(3) Match the pairs.

Vehicles	Transport route
1. Railway	a. Travel through the sky
2. Aeroplane	b. Travel by water
3. Ship	c. Travel by road
4. Bullock cart	d. Traveling by Rail Track

(4) Write answers in short.

- 1) List the businesses in rural and urban areas.
- 2) List the means of transportation you have used so far.
- 3) What festivals and ceremonies do we celebrate together?
- 4) Draw pictures of two utensils used in the kitchen.



(5) Encircle (O) the correct option.

1) What would happen if all the infrastructure in the city suddenly shut down?

- a) Life will be easier. b) People will face difficulties.
c) It won't make any difference. d) People will not go to the village.

2) What is the main advantage of having a bridge over the river in the picture on page 88 and 89?

- a) water stops b) people and vehicles can move easily
c) fishes grow d) flood occur

(6) Which vehicles are mostly used for public transportation?

(7) Write the names of the places you have recently travelled to and the vehicles you used for these journeys?

(8) Observe the pictures and write the numbers in the boxes as narrated in the story.



Activities

- Find out from your elders which festivals are celebrated in your area.
- With the help of your friends, write down which means of communications you use.



Clothing As Per Season



Observe.



Can you tell!

- What will you do to protect yourself from the rain?
- What clothes do you wear during winter?
- In which season are fine cloths and cotton clothes worn?



Let's understand.

Continuous changes happen in the atmosphere. The weather changes throughout the year according to seasons. We divide these changes into three periods. Those are called 'Seasons'. The summer, rainy and winter season are the three major seasons considered in India. The duration of each season is generally of four months. The seasons come one after the other regularly, which is called 'seasonal cycle'. Humans change their way of life according to the seasonal cycle.



Can you tell!

- 1) In which season do you like to drink cold water?
- 2) In which season the waterfalls are more visible?
- 3) When do you feel like lighting a bonfire?



Let's understand.

1) Summer - There are some days in the year when the weather is very hot. The temperature is high. There is a lot of heat in the air. Generally, the temperature starts increasing from the month of February. It is highest in the months of April and May. The period of four months of February, March, April and May is considered as the 'summer' season.

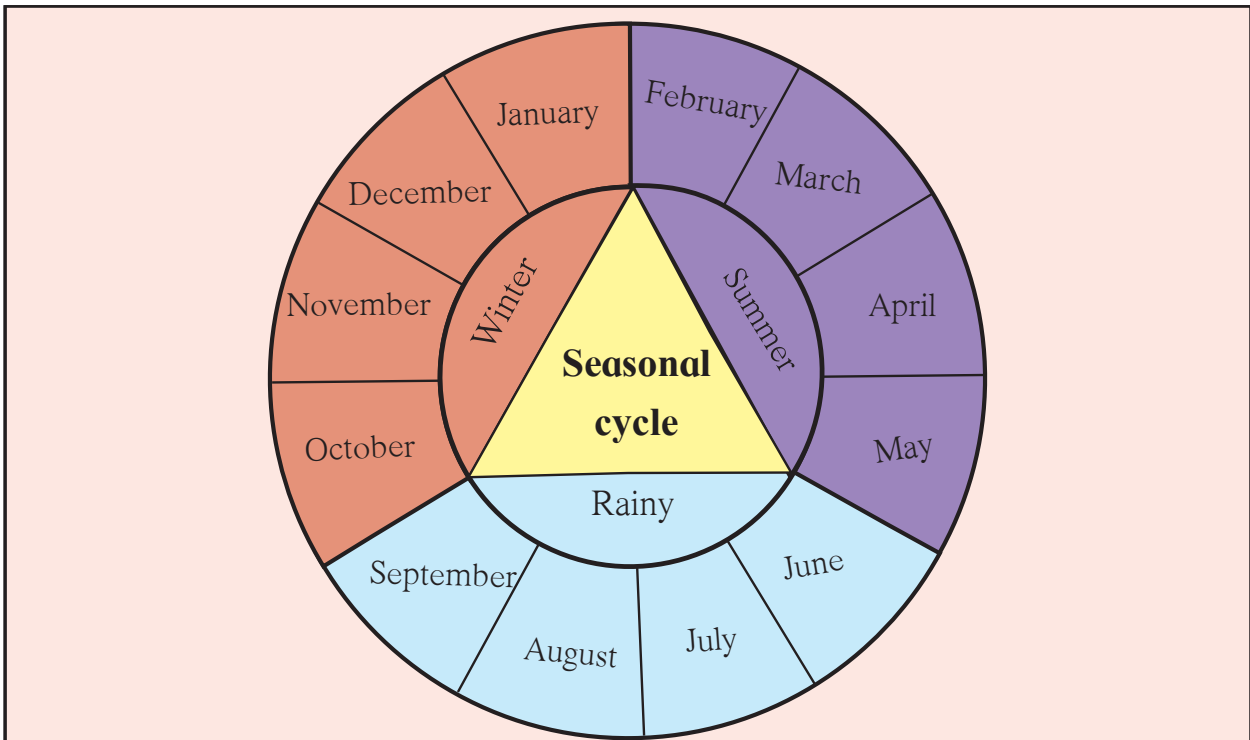
2) Rainy season - The rainy season begins after summer. It rains with

thunder, lightning and strong winds. The rains begin in the month of June. Generally, the four-month period of June, July, August and September is considered as the 'rainy season'.

3) Winter - After the rainy season, the air is cool and pleasant for some time. The air temperature is low, the air is dry and the sky is clear these conditions are seen during the four months of October, November, December and January. This period is considered as the 'winter' season.



Observe.



Season	Marathi Months	Characteristics
Spring season	Chaitra, Vaishakha	New leaves sprout; the weather is pleasant.
Summer season	Jyeshtha, Ashadha	High heat, summer
Monsoon season	Shravan, Bhadrapada	Rainy season, greenery increases
Autumn season	Ashwin, Karthik	The beginning of winter, the festive season
Pre-winter season	Margashirsha, Pausha	Severe cold
Winter season	Magha, Phalgun	Defoliation, the beginning of summer



Perform the activity.

Get pictures related to your favourite season.



Let's understand.

Many changes occur in our environment according to the seasons. In late winters and during summers, the leaves of some trees fall this is called 'defoliation'. Grass and small shrubs dry. After the rains, greenery appears everywhere. Trees sprout new leaves. Flowers and fruits appear. We feel like eating the fruits that grow in each season. Fruits consumed according to the season are beneficial for our health.

Seasonal influences are seen in clothing, food, festivals, celebrations, agriculture and other occupations.

- In the table below, write down the foods we eat according to each season.

Seasons	Food
Winter	
Summer	
Rainy	



Observe.

Observe the cloths worn by the people in the picture below.



Dress:

Food, clothing and shelter are the basic needs of humans. Human needs change with the seasons. Clothes are worn according to the seasons. These clothes may reflect a person's profession. Also, regional and traditional clothes are worn while celebrating various festivals. This shows unity in diversity.

In urban areas, men wear shirts, pants and shorts, while women wear salwar-kurta, tops, pants and *sarees*. In rural areas, men wear pyjamas, shirts, pants, dhotis and vests while women wear *sarees*.



We have studied this



- In India, there are three major seasons: summer, rainy and winter.
- Changes are seen in the area according to the season.
- When the seasons change, our diet also changes.
- We wear our clothes according to the season.
- There is diversity in the attire of people in rural and urban areas.



Let's Revise

(1) Fill in the blank with the correct word..

1) In summer is used.

(a) linen and cotton clothes (b) sweater (c) raincoat (d) earmuffs

2) June to September is the..... season.

(a) winter (b) summer (c) rainy (d) retreating monsoon

3) The falling of leaves from a tree is called

(a) foliage (b) algae (c) defoliation (d) mangrove

4) Chaitra and months comes in spring season.

(a) Vaishakha (b) Jyeshtha (c) Shravan (d) Pausha

(2) Answer in one sentence.

1. Which season do you like? Write names of two months that fall in that season?
2. What do you use to protect yourself from rain?
3. In which season is mango fruit available?
4. In which season do you wear warm clothes?

(3) Complete the table below.

Season	Seasonal Food Items			
1. Summer	1).....	2).....	3).....	4).....
2. Rainy	1).....	2).....	3).....	4).....
3. Winter	1).....	2).....	3).....	4).....

(4) What things could you take with you when you go to the village during summer vacation? Tick mark (✓) the boxes below the pictures you have chosen.

☐☐☐☐☐☐

(5) Which season's clothes do you like the most? Why? Write it down.

|| Instructions for teachers:

Teachers should make a magic bag by collecting items used in different seasons and are easily available to students.

Activities

- The teacher, with the help of the students, prepares a magic bag. It contains items used in different seasons. Each student is asked to choose one item and tell in which season it can be used.





My Diet



Solve the Puzzle

Find the names of food items in the word puzzle given below and draw a box around them.

b	u	r	g	e	r	c	c	x	p
h	q	e	s	p	r	o	u	t	e
a	m	l	a	h	d	f	r	p	a
k	f	i	g	t	a	f	d	i	n
a	p	p	l	e	l	e	c	z	u
r	d	f	h	a	m	e	v	z	t
i	s	p	i	n	a	c	h	a	d
t	o	m	a	t	o	m	i	l	k



Can you Tell?

- Which food items do your family members always encourage you to eat? Why?
- Which food items do all your family members tell you not to eat, and why?

Food that provides nutrients and energy to our body is called diet. Our body needs food so that all body parts can work properly.



Discuss

Which of the two plates in the picture below contains the most nutritious food? Why?



Food items necessary for nourishment of the body are called nutritious food items. A diet that contains various nutritious food items in the right proportion is called a 'balanced diet'. By consuming a balanced diet, the body remains healthy and is protected from various diseases.



Identify it.

Mark a ☒ under the nutritious items and mark a ☐ under the items that are not nutritious.

☐☐☐☐☐☐☐☐



Always Remember.

To maintain good health, along with a balanced diet, getting enough sleep, regular physical movement, outdoor sports, practicing yoga and living happy life with other are all essential.

Arrange in the correct order.

Below, the steps for making Kande Pohe are given in jumbled order. Arrange these steps in the correct order.

- (1) Chop the ingredients like onion, chili, coriander, etc.,
- (2) Light the gas or stove and place a pan on it.
- (3) Sprinkle little water and soak the flattened rice (pohe).
- (4) Heat oil in the pan; add mustard seeds, cumin, curry leaves, peanuts, onion, chilli, turmeric and salt, then cover it with a lid for a while.
- (5) Turn off the gas or stove and add lemon juice, sugar, and coriander to pohe.
- (6) Add the soaked pohe to the tempering and mix them.



Do you know?

In some rural parts of Maharashtra, a traditional food item called 'Rodga' is prepared. This food item is made from wheat flour. It is eaten with jaggery, ghee, dal fry and baingan bharta. *Rodga* is nutritious for health and delicious to eat.



Ask an elder in your family about the method of preparing a traditional food item from your area and write down in your notebook.

Eating all food items such as fruits, vegetables, grains, pulses, lentils, milk, ghee, butter, colostrum milk cake (*Kharvas*), eggs, meat, and dry fruits in the right proportion is useful for our health. Also food items prepared from these ingredients are beneficial for our health. However, some food items are harmful to our health.

|| Let's Play a Game

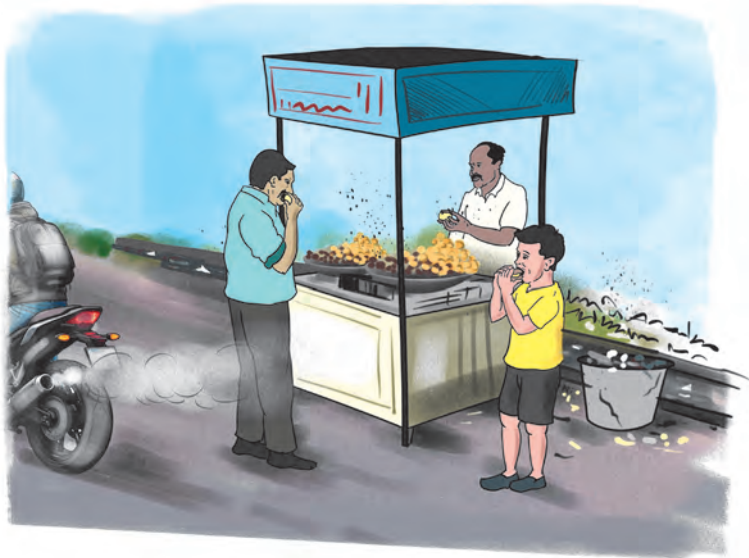
Healthy and harmful food items are given in the Snakes and Ladders game below. Play it like a regular game of Snakes and Ladders.



Discuss

- Which food items are sold in the open in your area?
- Have you or your friend ever had a stomach upset after eating food in the open? Why the stomach got upset?
- What advice will you give to your friend regarding this?

Food items kept in the open become harmful to health as dust and flies settle on them. This can lead to stomach ailments.



Observe.

Which of the following pictures indicate right and wrong action ?



|| Let's Understand.

Drinks like buttermilk, lassi, kokum sherbet, amla sherbet, coconut water, and solkadhi are beneficial for the body. On the other hand, carbonated drinks prepared by mixing specific substances for colour and taste are harmful to health. Drinking such beverages regularly causes teeth to wear down and decay. It also leads to harmful effects like dehydration and weight gain. Similarly, specific substances are added to packaged food items so that they last longer. Consuming these packaged food items regularly has a bad effect on our health.



Do you know?

Carbonated drinks are beverages prepared by dissolving carbon dioxide gas in them. Bubbles are visible in it, and these drinks tingle on the tongue.



Think

Which nutritious snacks will you give to your friends on your birthday?

Collect nutritious snacks in the basket with the help of a line.



Note down the food items you eat in the following table.

Day	Morning	Afternoon	Evening	Night
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

After a week, discuss your diet with your teachers and friends.

Tick ☒ under the food items from the pictures below that you would like to eat.



Fresh food means food that has been recently prepared. Fresh food is nutritious and tasty, so always eat fresh food. Eating fresh food gives energy to the body and increases enthusiasm.

Stale food means food that has been kept for a long time after being prepared. If food is kept for too long, it develops an unpleasant smell, becomes watery, sticky, and its taste changes. Such food is harmful to health, so do not eat it.



Think

Suppose you and your family went out for a few days and some fruits and vegetables are left in the house. What changes will you see in them after you return home?

|| Come, let's sing a song.

Eat a healthy diet every day,
Strength, health, and joy will
come your way.

Health is the only wealth so true,
Moments of bliss are hidden there
for you.

A nutritious breakfast, heavy and
fine,

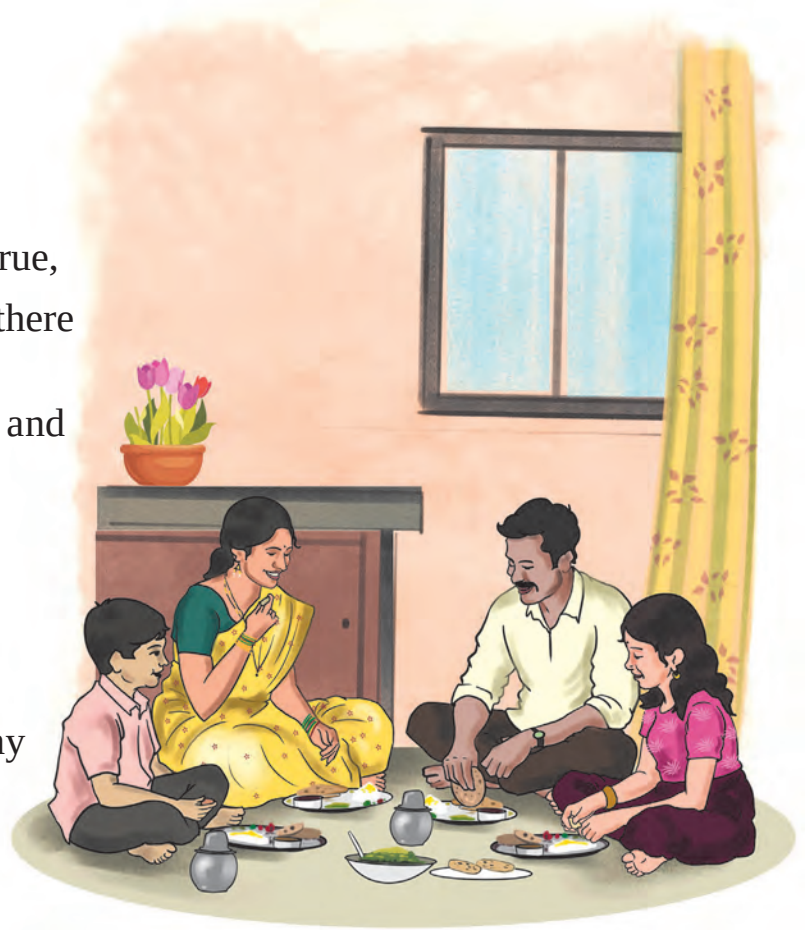
At noon, veg and bhakri are
divine.

In the evening and night, eat
something light,

To keep your heart and tummy
feeling right.

So always remember this
golden plea,

'Health is Wealth.'



Discuss.

Discuss about 'Health is Wealth' with your friends and the elders in your house.

|| Let's Understand.

Diet according to the seasons

In winter people eat items like jaggery, sesame, dry fruits, dry dates-coconut ladoos, peanut ladoos, eggs and meat.

During summer people drink beverages like coconut water, lemon sherbet, buttermilk, sugarcane juice, kokum sherbet, panhe (raw mango drink), solkadhi, bael fruit sherbet, vetiver (wala) sherbet, and ambil.

According to the season fruits like jujube, gooseberry (amla), tamarind, and wood apple are eaten.

Which diet do we take during the rainy season?



Observe.

What are the incorrect things seen in the picture below?



Think

- * Why should food not be wasted?
- * What should be done to prevent food from being wasted?
- * How can wasted food be utilized?

Let's Help Each Other

Some social organizations collect leftover food and deliver it to needy.



Always Remember

Farmers have to work very hard to grow food grains in the fields. To ensure their hard work is valued, we should not waste food. Serve only as much food on your plate as you need.

Let's Understand

Millets



Ragi



Pearl Millet



Foxtail Millet



Amaranth



Sorghum



Barley

Uses of Millets

Food prepared from millets is digested quickly.

We can make dishes like Bhakri, Lapsi, Upma, Idli, Dosa, Kheer, Thalipeeth, and Cutlets from millets.



One does not fall ill frequently. Immunity increases.

Weight stays under control.

|| One Day for Millets

Collect samples of various millets in different small bags. On this day, everyone should bring a food item prepared from millets in their tiffin. Exchange these food items among yourselves.



We have studied this



- Food items necessary for nourishment of the body are called nutritious food items.
- Eating fruits, vegetables, grains, pulses, lentils, milk, ghee, butter, dry fruits, etc., in the right proportions is beneficial for our health.
- Food items kept in the open become harmful to health due to dust and flies settle on them.
- Always eat fresh food; don't eat stale food.
- We include various types of food items in our diet according to the season.
- Food items made from millets for example: Bhakri, Upma, Idli, Thalipeeth etc. are beneficial for health.
- Do not waste food.
- Constantly eating packaged food has a bad effect on health.



Let's Revise

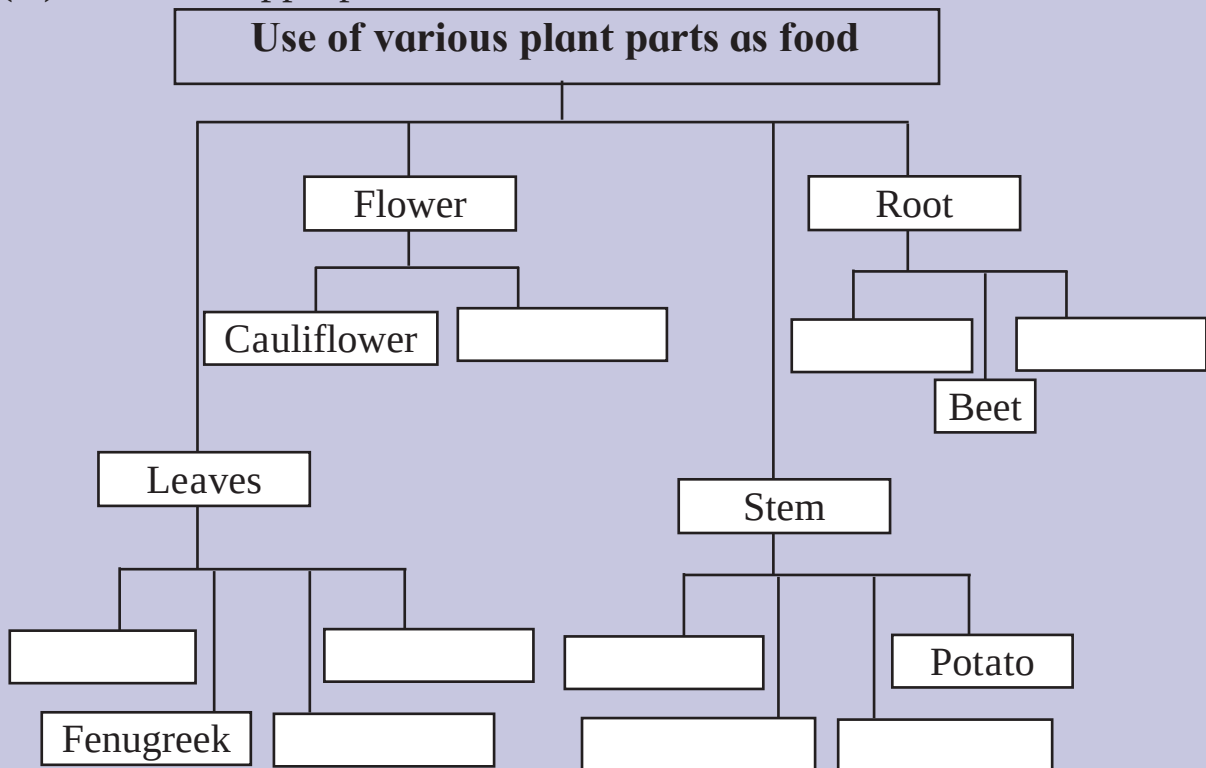
(A) Fill in the blanks.

- (1) Food items necessary for nourishment of the body are called food items.
- (2) prepared by mixing specific substances for colour and taste are harmful to health.
- (3) Fresh food is and

(B) Observe the pictures and answer the questions based on them.



- (1) Write the names of the food items from the accompanying picture that belong to a balanced diet.
 - (2) Write the names of the food items from the accompanying picture that belong to an unbalanced diet.
 - (3) Why should we take a balanced diet regularly?
- (C) What effects will it have on our body if we regularly eat food that has been kept in the fridge for a long time?
- (D) Write the appropriate words in the boxes below.



(E) Read the following information and answer the questions.

Sahil's weekly diet chart for the last three months is given below. Nowadays, he often has a stomach ache and his weight is also increasing.

Food Item	Frequency per week
Food in the open	6 to 7 times
Vegetables, Roti, Salad	3 times
Fruits	2 times
Cake, Burger, Pizza, Wafers	4 to 5 times
Milk, Eggs	Daily
Jwari, Bajri Bhakri	Daily

(1) Why could Sahil have a stomach ache?

(2) What changes do you think he should make in his diet to lose weight?

(F) Which nutritious snack do you carry in your 'pocket snack' ?

Activity

- Create a picture by sticking millets.
- Prepare a Bhel from puffed millets and write its recipe in your notebook.



Curiosity in Daily Life

Meera went to the seashore with her Baba for a walk. There, she was trying to make a sand castle. But she wasn't succeeding. Finally, she called her Baba for help. Baba saw that she was trying to make the castle using dry sand. He told her to use damp sand to make the castle. Meera tried that and what a surprise! Meera's castle was ready. Meera asked curiously, "Baba, how did this become possible?"

Baba said, "Because of the water in the damp sand, the sand particles stuck to each other and you were able to give it the shape you wanted. To make the castle, you used sand and water.

Substances obtained from nature are called natural substances. For example: Wood, sand, water, etc

Substances created by humans from natural substances are called man-made substances. For example: Chair, table, etc."



Observe the objects shown in the pictures. Write in the table which substance is used to make them.

Object	Substance Used	Name other objects made from that substance
	Wood	Door, wooden toys, rolling board (polpat), table
		
		
		
		

Observe the objects in your surroundings. Prepare a list of natural and man-made objects.

Natural objects:

Man-made objects:

Baba asked, "Meera, while making the sand castle, you also used stones; they were hard. But the damp sand was soft. Some substances are rough, while some are smooth. Some substances break immediately when hit, dropped from a height onto the ground or struck against another object, these are brittle substances."



Try this.

Handle the objects shown in the picture below and complete the boxes.

Hard ----- ----- -----	Rough ----- ----- -----	Soft ----- ----- -----
Smooth ----- ----- -----		Brittle ----- ----- -----



Try this.

Required items: Glass tumbler, spoon, water, salt, sugar, sand, milk and oil.

- Take some water in the glass.
- Add a little salt to it and stir with the spoon.
- Observe what happens and note it in the given table.
- Repeat the same activity for sugar, sand, milk and oil.

► **Note in the following table.**

Water-soluble substances	Water-insoluble substances
-----	-----
-----	-----
-----	-----

Some substances dissolve in water, while others don't.

Baba said, "In the above activity, we used substances like sand, oil, milk, and water. Some of these are solid and some are liquid substances. These are the states of matter." Meera asked curiously "Baba, what is meant by a state of matter?" Baba said, "Let me show you something interesting."



Try this.

Take some ice cubes in a flat bowl. Keep that flat bowl in the sun and observe the change that occurs.



The change I observed-

After doing the activity, Meera asked her Baba, "Baba, I saw that the ice turned into water, and when I looked at the bowl after 5–6 days, that water disappeared. Where could it have gone?" Baba explained, "Because of the sun, first the ice turned into water, then the water turned into steam and mixed into the air. That is why you don't see anything in the bowl now. These ice, water, and steam are the states of water. That is, ice is the solid state of water, water is the liquid state, and steam is the gaseous state of water. Substances are found in these solid, liquid, and gaseous states." Meera said, "So Baba, oil is also a liquid state, right?" Baba said, "Absolutely right!"



Categorize the following substances into their correct states and write them down.

Sherbet, Ghee, Block, Fog, Milk, Smoke, Air, Tea powder, Rice, Stone, Petrol, Steam, Honey.



.....

.....

.....



.....

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.....



Do you know?

In modern scientific language the states of matter are described as solid, liquid and gas. However according to the ancient Indian knowledge these states are expressed in the form of five elemental principles Akash, Vayu, Agni, Jal and Prithvi. In the universe every substance is found to contain these elements in varying proportion.

Meera was chatting with her Baba while having a meal in the kitchen. Meera asked, "Baba, we use so many things to prepare food in the kitchen, don't we?" Baba replied, "Yes, Meera. To make the work easier, we use many objects. We call them 'machines.' Meera said, "Machines? You mean like a mixer?" Baba said, "That is also a machine, but some machines have a simple structure. For example, we easily cut vegetables with a sharp knife. Similarly, a bottle opener opens a bottle instantly. These are simple machines."



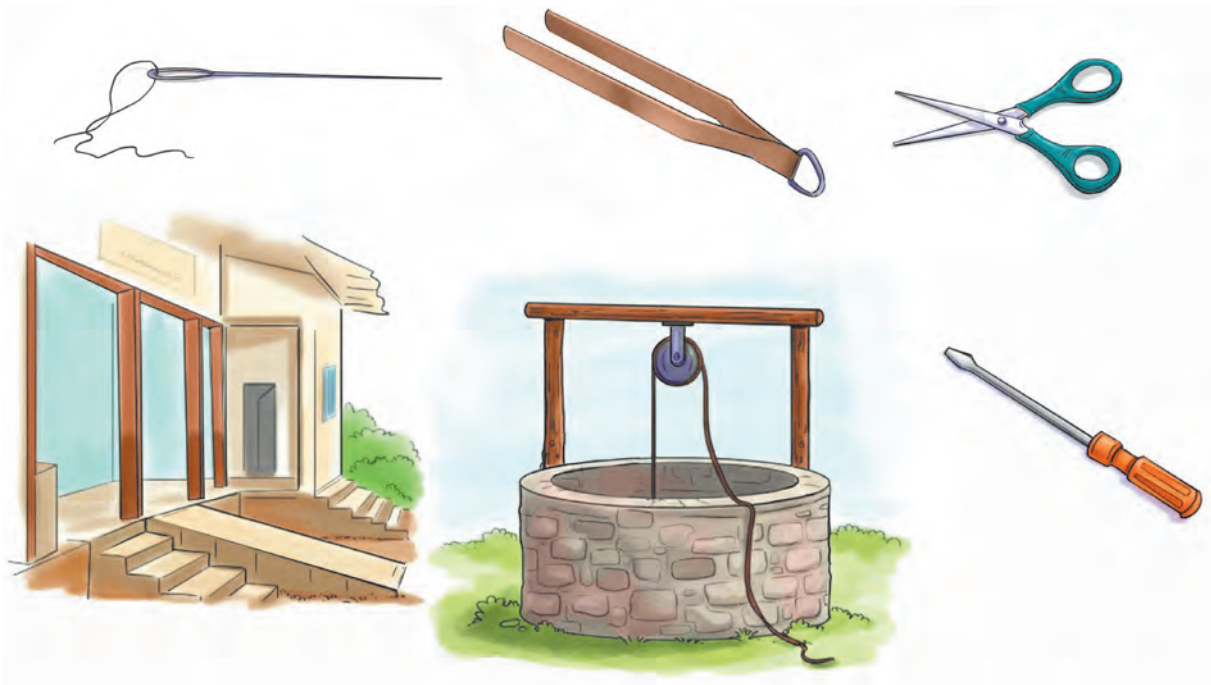


Try this.

Take a tin can (like a milk powder or rasgulla tin) with a tight-fitting lid. Try to open the lid using only your hands. Can it be opened easily? No, right? Now, try to open the lid again using a spoon. What happened? It becomes much easier to open the lid of the tin using a spoon. Here, the spoon acts as a simple machine.



Write the names and uses of the simple tools in the table given below.



Name of Simple Machine	Use

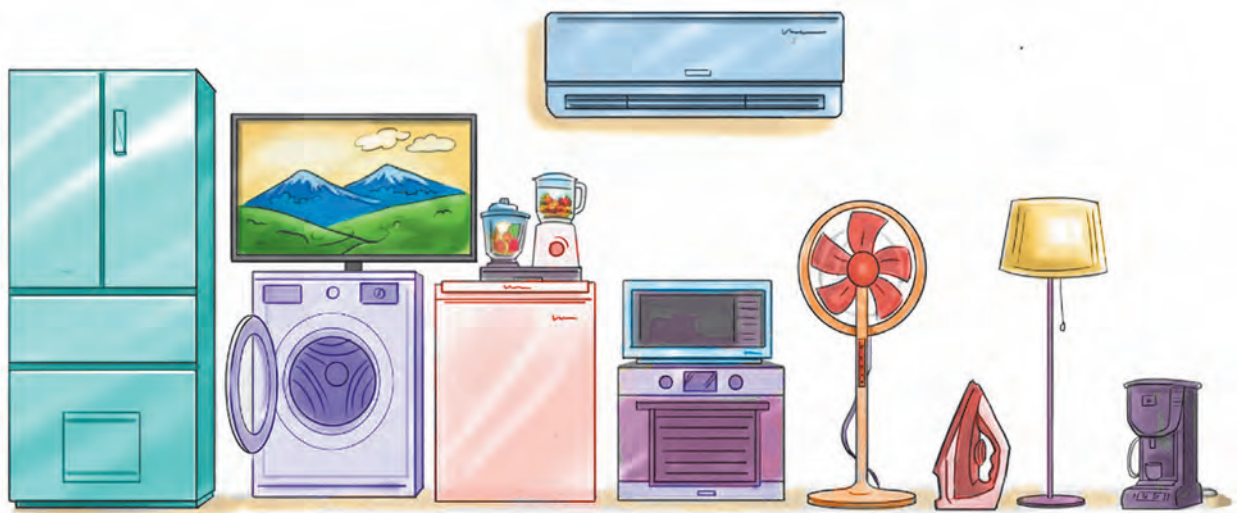


Do you know?

Until the end of the 20th century, a water wheel (*Rahat*) was used to water crops. In this system, there was a large wheel over a well and a chain of pots or buckets was tied to it. One or two bullocks were hitched to this wheel that is pulley. As the bullocks walked in a circle, the buckets attached to the pulley would bring water out of the well. This was an efficient machine for that time. Many simple machines were used in *Rahat*.



Meera asked, "Oh! So a knife, a spoon, and a bottle opener are all simple machines. But Baba, how do the mixer and the TV work?" Baba replied, "The mixer, fan, and TV are all electrical appliances. They need electricity to work. Because of electricity, the mixer spins and grinds substances. The fan rotates and gives us air. Using these appliances our work is done very quickly. But be careful while using them. Never touch an electrical button with wet hands."



Electrical appliances



Identify it.

Identify the electrical appliances from the following and colour them."

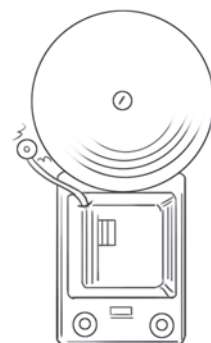


Think

In the past, when there were no modern machines and electrical appliances, how were various tasks performed?

Modern Appliances	Earlier Appliances	For which purpose it is used?
Mixer	Mortar and pestle, grinding stone, grinding roller	To grind ingredients needed for cooking

As the doorbell rang, Meera ran to the door. Her Baba had returned from work. She asked, "Baba, is the electric bell on the door also a machine?" Baba replied, "Yes, child. But do you know how it produces sound?" Meera said, "Sound comes when the button is pressed, but don't know how it is created." Baba explained, "When any object is struck by another object, it vibrates and sound is produced. When the doorbell button is pressed, a striker hits the bowl-like part inside the bell, causing it to vibrate and create sound. This is called 'sound'. Let's do an activity."



Let's place a large steel plate or tray upside down. Let's strike the center of that plate or tray once with a spoon. Then, let's gently touch the center of that plate with our hand. What happened?" Meera said, "Baba, a sound was coming from it, and upon touching it, a vibration could be felt by the hand. But Baba, after touching it, the sound stopped." Baba said, "Because you touched it, the vibration stopped, and therefore the sound stopped."

Let's Create Musical Instruments

"Take a steel spoon and at least five objects made of different materials like wood, metal, plastic, cloth, and glass. Gently strike each of those objects with the spoon. Listen to the sound of each one. Try to describe those sounds with words like ting-ting, dhoom-dhoom, dab-dab... Now, create your own music and write down the words used for it."

Example - Dhoom dhoom thak thak, dhoom dhoom thak

Ting ting thak thak, ting ting thak

My Music :



Observe.



Meera said, "Baba, when I applied a little force to a ball of clay, a faint imprint of my hand appeared on it. When I applied a little more force, the hand imprint became clearer. Now look at what happened when I applied even more force." Baba replied, "The force you are applying with your hand to the clay ball is called Pressure." Force applied to a specific area of any substance is called Pressure.



Meera said, "Baba, yesterday while coming home, my umbrella turned inside out because of the strong wind." Baba replied, "Dear, your umbrella turned inside out due to the force of the wind. This is called Air Pressure."



Try this.

"Place a bottle cap on a table and try blowing on it. What happens?"

Meera said, "After blowing on it, the cap was pushed forward even without touching it with hands."

Baba replied, "This means due to air pressure on the cap in a specific direction, the cap was pushed forward. Many such examples of air pressure can be given."



Mark ☒ under machines that use air pressure and mark ☑ under machines that use electricity.

 <input data-bbox="287 1872 375 1947" type="checkbox"/>	 <input data-bbox="702 1872 790 1947" type="checkbox"/>	 <input data-bbox="1133 1872 1220 1947" type="checkbox"/>
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Meera said, “Oh wow! Now I understand. Baba, there are so many wonders hidden in our house!” Baba said, “Correct! There is wonder hidden in every object around us. You just need to look attentively.”



We have studied this



- Many substances are obtained from nature; they are called Natural Substances.
- Substances created by humans from natural substances are called Man-made Substances.
- Some substances dissolve in water, while some substances do not dissolve in water.
- Solid, Liquid, and Gas are the three states of matter.
- An object used to make work easier is called a 'Machine'.
- When any object vibrates, sound is produced. This is called Sound
- Force applied to a specific area of any substance is called Pressure.



Let's Revise

(A) Write Odd Man Out.

- (1) TV, Fridge, Mixer, Mortar and Pestle
- (2) Doorbell, Knife , Spoon , Scissors
- (3) Wood , Glass, Cotton, Iron

(B) Guess Who am I?

- (1) I am hard and strong. I am rough too. I am used for making furniture.

- (2) I am shiny and brittle. I am used for making bangles, tumblers, or window panes.
- (3) I am very soft and I become heavy when soaked in water. I am used for making handkerchiefs or clothes.
- (4) I am very hard. I make a sound when struck. I am used for making utensils and tools.
- (C) What will you do to quickly stop the sound of a plate that has fallen from your hand?
- (D) List the brittle substances in your classroom.
- (E) Take different substances from your home. List the substances that dissolve in water and those do not dissolve in water.
- (F) Find the properties of substances and box them.

s	h	a	r	d	r
o	k	n	m	w	o
f	g	a	s	q	u
t	l	j	g	a	g
s	m	o	o	t	h

Activity

- Create a toy that works on air pressure.



- Draw a picture of an electrical appliance. Colour it appropriately and write down what care will you take while using it.

Our District- Akola



(Dinu and Minu are having a dialogue in the classroom)

Dinu: Minu, should we go to Amravati?

Minu: What for?

Dinu: Do you know a sports competition is being organised for school children at Amravati. We can go along with our teacher.



Minu: But how shall we go? We do not have any information.

Dinu: Let us ask our teacher.

[Both of them approached their teacher. The teacher showed them our district and neighbouring districts in a map. The teacher also told Dinu and Minu about the interesting things in a map.



Observe.

Complete the activity with the help of following map.





Perform the activity.

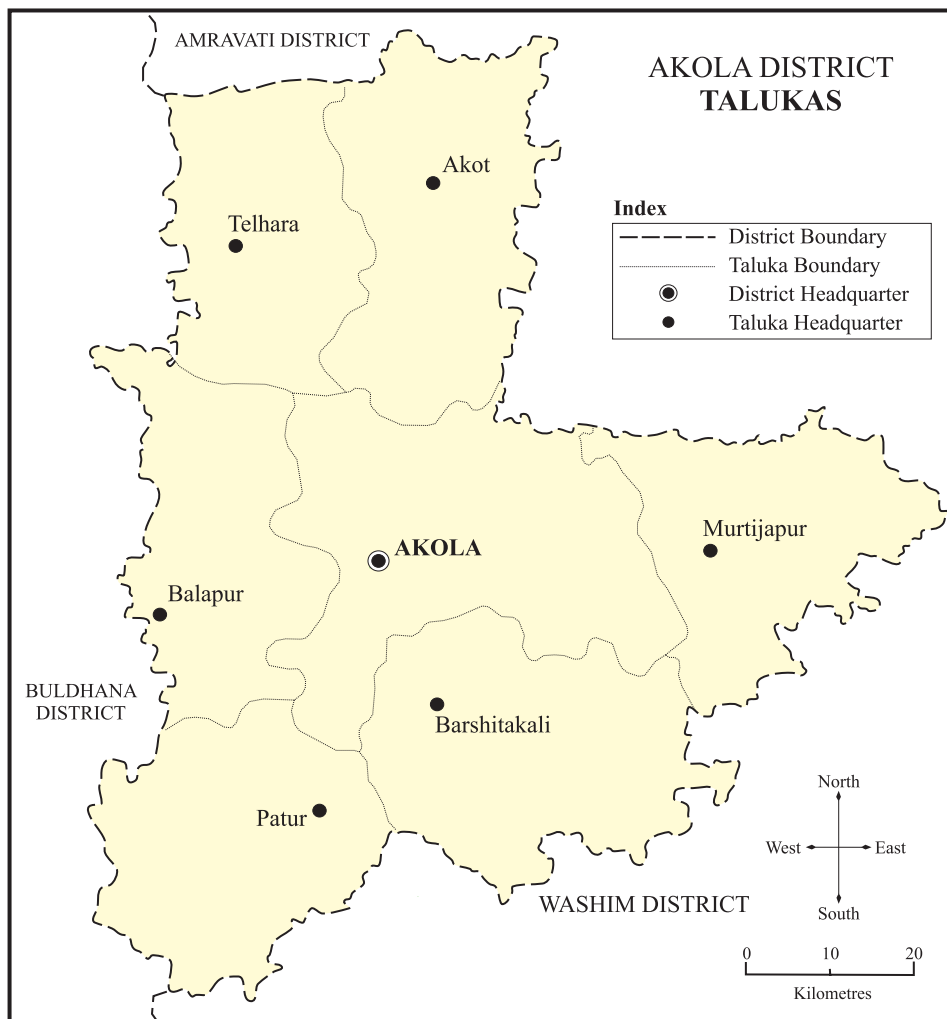
- Write the name of your district in the given box.
- Colour any one neighbouring district.
- Write the names of any two districts having sea coast in the given boxes.



Observe.

Friends, let's study our district 'Akola'.

Complete the activity with the help of following map.



- Shade the taluka where you live with any colour.
- Write the names of any two talukas in your district.

.....

- Name the districts and states surrounding your district based on directions given below.

Directions	East	West	South	North
District/State				



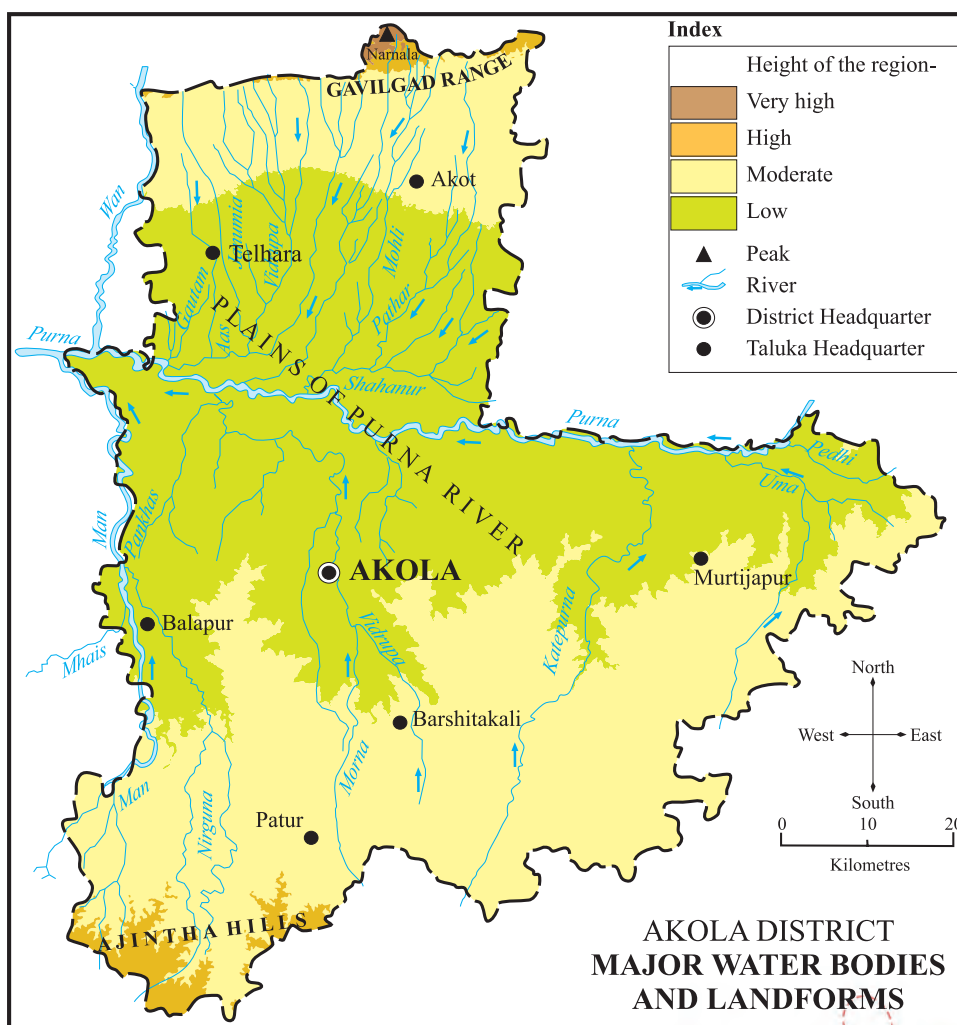
Let's understand.

- Akola district is situated in the northern part of Maharashtra state.
- Akola district has seven talukas.
- According to the geographical area 'Akola' taluka is the largest in the Akola district.
- According to the geographical area 'Telhara' taluka is the smallest in the Akola district.



Observe.

Complete the activity with the help of following map.



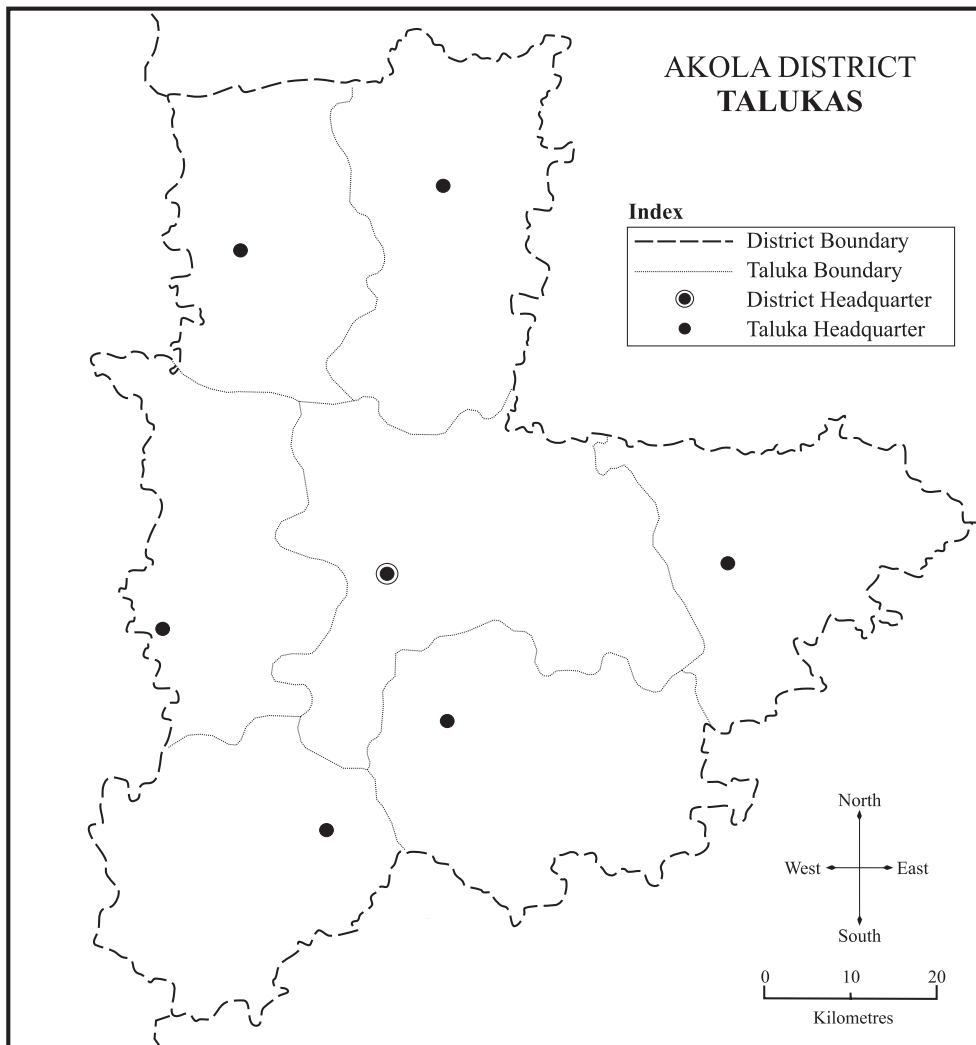
- Write the flow direction of the given rivers in the following table.

River	Flow Direction
Purna	
Man	
Wan	
Pedhi	



Perform the activity.

Complete the activity with the help of following map.



- Draw any one river in the district.
- Draw any one hill range in the district.
- Find the headquarter of our district and write its name.
- Write the names of any two taluka headquarters.

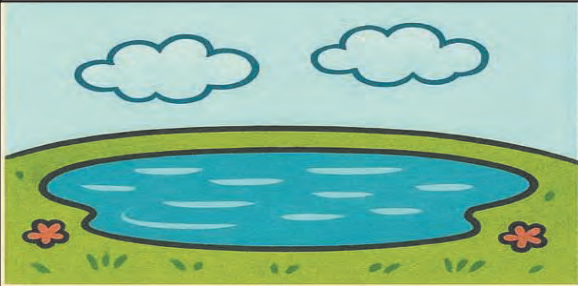
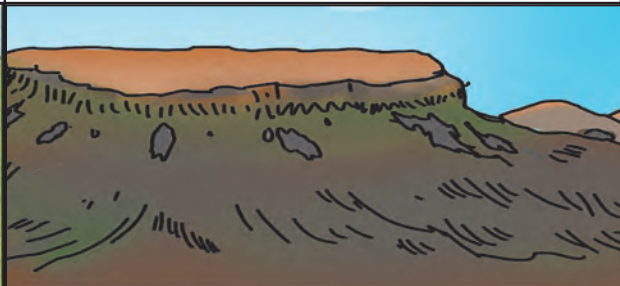
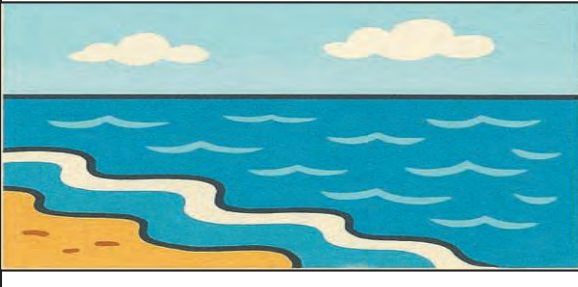
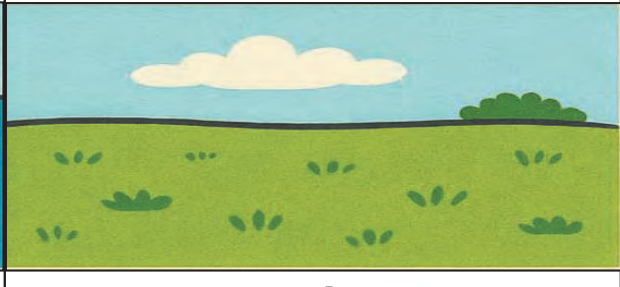


Let's understand.

- The northern part of Akola district is hilly. Gavilgad ranges of Satpura mountains extend in this district.
- The Ajintha hill ranges lie to the south of the district.
- The Purna river basin lies in the central part of the district. This is a plain region.
- There is a dense network of rivers in the district.
- The major part of the district is covered by fertile black soil.

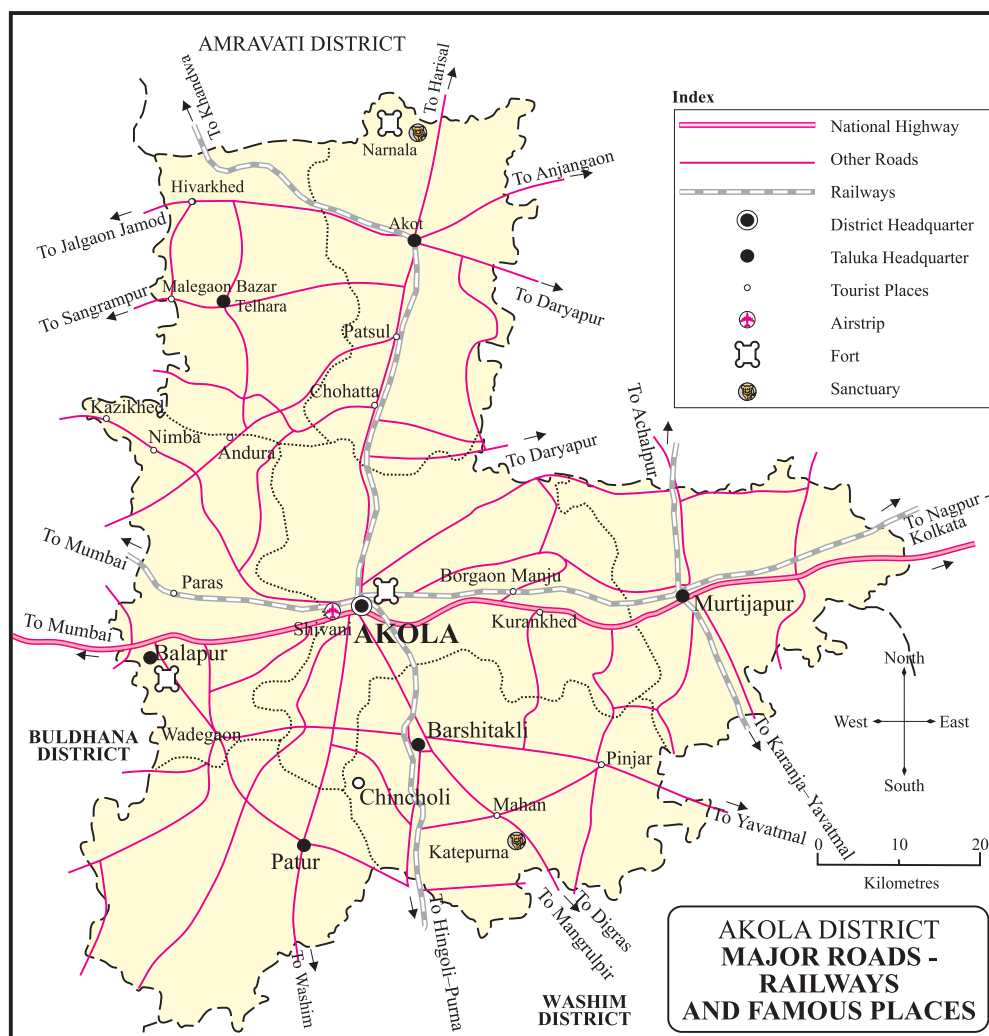


Observe.

Waterbodies	Landforms
	
A Lake	A Mountain
	
A River	A Plateau
	
Sea	A Plain



Observe.



Can you tell!

Observe the map and answer the questions.

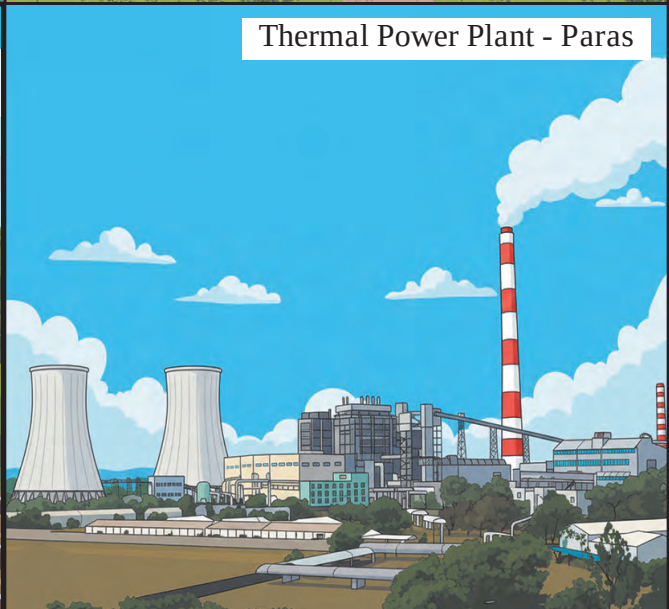
- Which places are connected by main roads in your district?
- Which are the main railway lines in your district?
- State what the following places are famous for?

Name of the Place	Famous for
Murtijapur	
Shivani	
Telhara	
Patur	



Perform the activity.

With the help of your teacher, using internet find the information about the major historical places / tourist places / famous places from your district. Write in your notebook.

Roads-Railways	Famous Places
Roads 	Katepurna Wildlife Sanctuary- Barshitakali 
Railways 	Thermal Power Plant - Paras 



Do you know?

- The transportation in Akola district is mainly carried out by roads and railways. Three railway routes and one national highway pass through the district.
- The railway line running east-west through the central part of the district runs from Mumbai to Nagpur. The second railway line runs north-south from Hingoli to Khandwa.
- Akola city is the trade centre of cotton produce.
- The hill ranges in the north and south of the district are rich in natural beauty.
- The forts are located at Akola, Balapur and Narnala. Dr. Panjabrao Deshmukh Agricultural University is located at Akola City.



Observe.

The food crops and fruit crops are shown in the following image.

Food Crops		Fruit Crops	
			
			
			
			



Perform the activity.

- Write names of food crops produced in your surrounding.....
- Write names of fruit crops produced in your surrounding.....



Let's understand.

- The climate of Akola district is hot and dry. There is hot summer in the months of April-May.
- Extreme cold is experienced in December month.
- The hilly regions in the north and south of the district receives high amount of rainfall.
- The climate and soil factors of our district are favourable for cotton and jowar crops. Cotton is widely cultivated crop in the district.
- Apart from this, wheat, rice, gram, tur, soybean, moong, urad, sunflower etc. are grown in the district.
- Fruits such as lemon, orange, banana, amla, guava, jujube, mango, custard apple etc. are produced in the district.
- The amount of vegetable and flower cultivation is increasing in the district.



Observe.

The cash crops, pulses and oilseeds are shown in the following image.



Perform the activity.

With the help of your teacher, write the information in your notebook about the cash crops grown in your surrounding.



Can you tell!

Write in the boxes from which crops the following food items are made.



Let's understand.

Various festivals are celebrated in our district according to tradition. For example, the Marathi New Year begins with the festival of Gudi Padwa. Festivals such as Ganeshotsav, Navaratri, Diwali, Eid, Christmas, Holi, Buddha Pournima, Parsi New Year, Chhatrapati Shivaji Maharaj Jayanti, Mahavir Jayanti, Dr. Babasaheb Ambedkar Jayanti etc. are also celebrated.

Complete the table.

- With the help of your teacher, write the names of the festivals being celebrated this year in the table below and the period in which they fall.

January to April	May to August	September to December
.....		
.....		
.....		
.....		

- Collect the information about any three festivals and write about how you celebrate them.



Do you know?

- Most of the people in the district are related to rural life and their main occupation is agriculture and their livelihood is related to it.
- Tribes like Gond, Bhil, Andh, Korku etc. live in the southern part of the district. Tribal settlements are called as 'Pada' or 'Wadi'. The language of the Gond tribe in the district is Gondi and their Gondi dance is famous. People of all religions celebrate festivals according to their traditions in the district.



Perform the activity.

Draw a picture of your favourite festival.

More information about the district

- Rocks used for construction are extracted from rock quarries in the district.
- Sand is extracted from riverbeds.
- Idols and various useful items are made from stones from the Shirla area near Patur.
- There is a thermal power plant at Paras in Balapur taluka.
- The famous sanctuaries of Narnala and Katepurna are located in the district.



More information about the district and related pictures

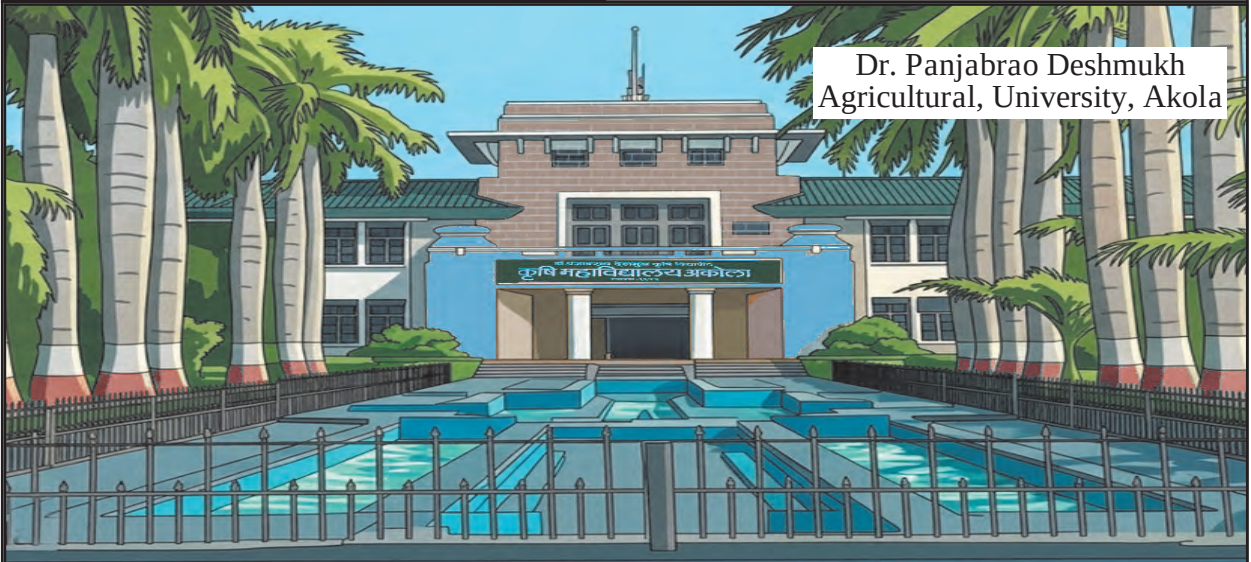
Narnala Fort-Akot



Balapur Fort-Akola



Dr. Panjabrao Deshmukh
Agricultural, University, Akola



We have studied this.



- We were able to study our district and the districts of Maharashtra with the help of map.
- We could study the major waterbodies and landforms with the help of map.
- We were able to tell the places around our district according to the direction.
- We understood that crops are grown based on the climate.
- We were able to study the major roads, railways and famous places of our district with the help of map.
- We were introduced to the festivals, celebrations and traditions of our district.



Let's Revise.

(A) Fill in the blanks with the correct word.

1) There are in all talukas in Akola district.

- (a) Eight (b) Ten (c) Seven (d) Nine

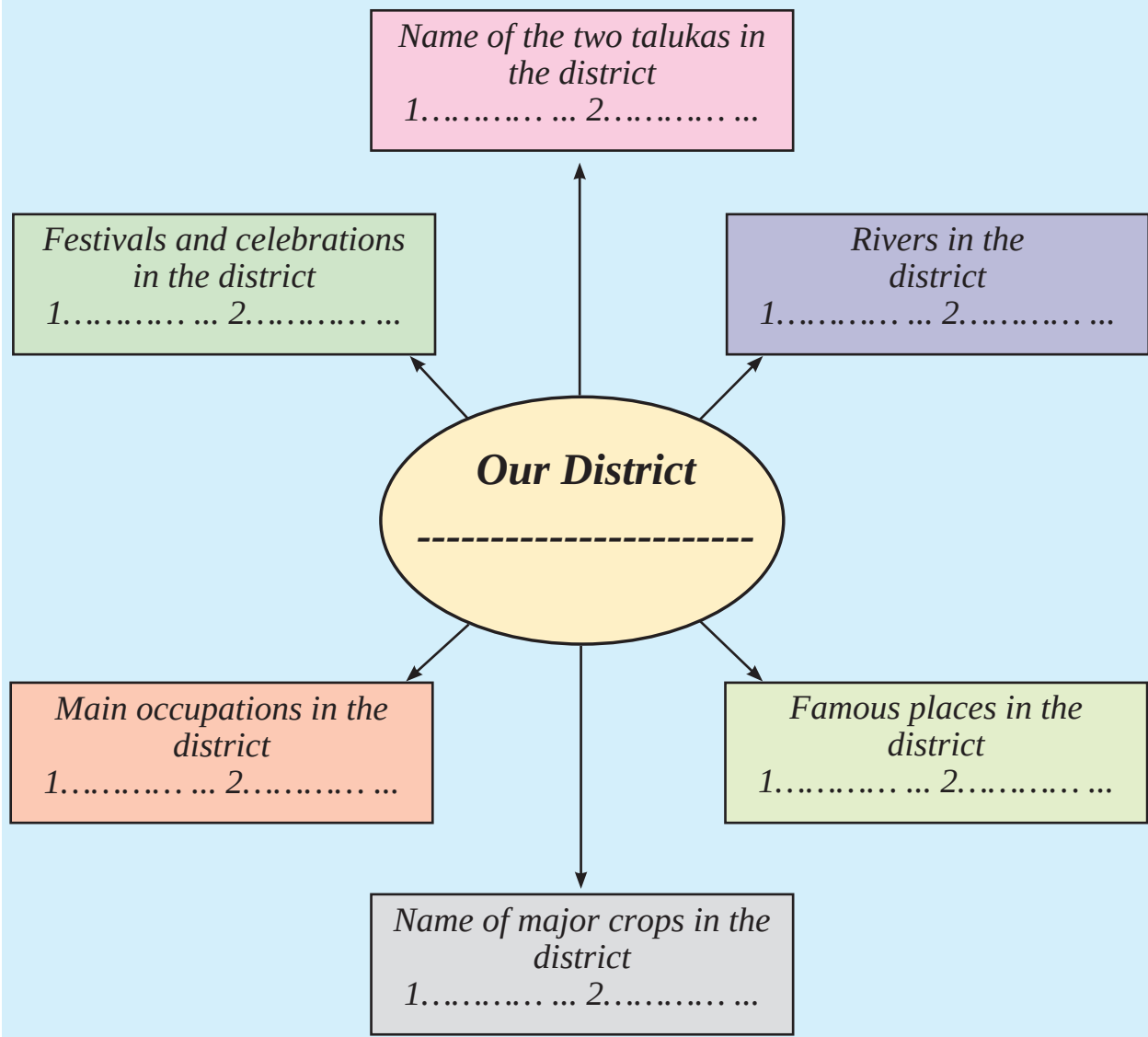
2) The main crop of Akola district is

- (a) Cotton (b) Wheat (c) Gram (d) Peanuts

3) sanctuary is located in Akola district.

- (a) Nagzira (b) Chaparala (c) Katepurna (d) Tadoba

(B) Complete the following concept picture.



(C) Visit any one place in your taluka with your parents or teachers.

(D) Activity – The names of some districts of Maharashtra are hidden in the word puzzle. The name of one district has already been identified. Find the names of the other districts.

DISTRICTS OF MAHARASHTRA

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

(E) Visit a weekly market with your parents. Observe the items being sold and classify the products and items in the table given below.

No.	Items and Products produced in your surrounding	Items and Products not produced in your surrounding
1.	-----	-----
2.	-----	-----
3.	-----	-----
4.	-----	-----
5.	-----	-----

Hello Children!

If you feel uneasy about someone touching you inappropriately, you should not keep quiet. You must :

1. Not blame yourself.
2. Tell someone whom you trust.
3. You can also inform National Commission for Protection of Child Rights through the **POCSO e-box**.

When you get an unsafe touch, you may feel bad,
confused and helpless.

You need not feel “bad” because it’s not your fault.



Press This Button

POCSO e-box available at ncpcr@gov.in

If you are below 18 years of age, and are troubled or confused
or abused or in distress or know some other child who is...

*Call 1098...because some numbers are good!
They change lives!!!*



CHILDLINE 1098 - a national 24 hours toll free
emergency phone service for children in distress is an
initiative of CHILDLINE India Foundation supported
by Ministry of Women & Child Development.



नए समाज की ओर
Towards a new dawn

- Provide students with age-appropriate guidance on recognizing and understanding good touch and bad touch, ensuring their physical and emotional well-being.



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