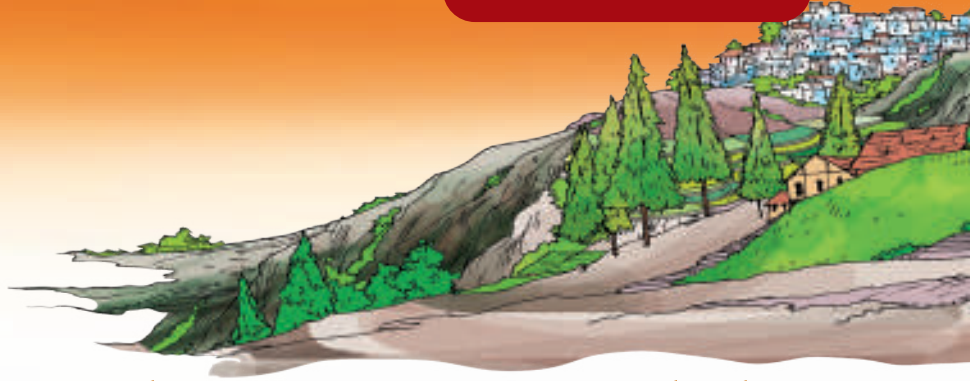


For Free Distribution



Our Wondrous World

Textbook for Grade 4

THE WORLD AROUND US

Session 2026-27



0435

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एन सी ई आर टी
NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

State Council of Educational Research & Training Chhattisgarh, Raipur

यह पाठ्यपुस्तक शासकीय सम्पत्ति है। इसका क्रय-विक्रय अवैधानिक है।



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Preface

In accordance with National Education Policy 2020, new curriculum and textbooks have been developed by the National Council of Educational Research and Training, New Delhi. Chhattisgarh has adapted the textbooks to make them more relevant for the state.

This textbook will prove to be knowledge enhancing and supportive for developing the 21st century skills. The students will learn and acquire the language through various relevant contents and contexts. This textbook will assist in the holistic development of children and will help in shaping them into global citizens.

We are grateful to the Director, National Council of Educational Research and Training for providing scope to adapt the textbook in accordance with the context of Chhattisgarh. We also express our gratitude to the subject coordinators and academic members of NCERT, New Delhi, for their guidance and cooperation in adapting the textbook.

We extend our gratitude to the State Education Steering Committee of Chhattisgarh for their contribution in this important task. We also express our gratitude to all the scholars who have directly or indirectly contributed to this work.

Although there is scope for enhancement and refinement in the adapted textbook, State Council of Educational Research and Training, Chhattisgarh is committed to continuously improve it and welcomes any comments and suggestions from students, parents and teachers from all over the state. This will ensure that our modest efforts can contribute to making Chhattisgarh a recognized name in the national educational landscape.

**Director
State Council of Educational Research
and Training, Chhattisgarh, Raipur**



Foreword

The foundational stage in school education, as envisaged by the National Education Policy (NEP) 2020, serves as the cornerstone for the holistic development of children. It enables students not only to imbibe the invaluable *samskaras* rooted in our country's ethos and constitutional framework, but also to acquire basic literacy and numeracy. This foundation equips them to transition seamlessly into the more challenging preparatory stage.

The preparatory stage acts as a bridge between the foundational and the middle stages, spanning three years from Grade 3 to Grade 5. The education provided during this stage builds upon the pedagogical approaches of the foundational stage. While the play-way, discovery and the activity-based learning methods continue, children are also introduced to textbooks and formal classroom settings. This introduction aims to establish a foundation across curricular areas, promoting holistic learning and self-exploration through reading, writing, speaking, thinking, drawing, singing, and playing. This comprehensive approach encompasses physical education, art education, environmental education, languages, mathematics, basic science and social sciences. This comprehensive approach also ensures children are well-prepared both at the cognitive-sensitive and physical-emotional levels to effortlessly transition to the middle stage.

Adhering to the recommendations of the National Curriculum Framework for School Education (NCF-SE) 2023, brought out as a follow-up to the NEP 2020, a new subject area called 'The World Around Us' at the preparatory stage is introduced. This subject aims to provide environmental education through an experiential learning approach, connecting children's experiences with the basic concepts of different subject areas, which they will study at the middle stage.

Our Wondrous World, the textbook for The World Around Us, has been designed to help children connect their day-to-day learning about their world to the basic concepts of various subject areas—science, social sciences and environmental education. It aims to enhance their sensitivity towards their environment, develop skills to work with the community, and foster a positive attitude towards various professions.

Our Wondrous World emphasises conceptual understanding, critical thinking, creativity, and the values and dispositions essential for this developmental stage. It incorporates cross-cutting themes such as inclusion, multilingualism, gender equality, and cultural rootedness, integrating appropriate ICT tools and school-based assessments.

In Grade 3, students were familiarised with four broad units, which included Our Families and Communities, Life Around Us, Gifts of Nature and Things Around Us. This textbook for Grade 4 centres on five broad units, including Our Community, Life Around Us, Health and Well-Being, Things Around Us, and Our Environment. The content and processes have been designed by keeping in view the age, experiences, interests and diversity of children everywhere.

Children's innate curiosity at this stage needs to be nurtured by addressing their questions and designing activities based on the core learning principles. While the play-way method continues, the nature of toys and games used for teaching evolves to enhance engagement rather than mere attraction.

While this textbook is valuable, children also need to explore additional resources on the subject. School libraries should facilitate this extended learning, and parents and teachers should support their endeavours.

An effective learning environment motivates children, keeping them engaged, and fostering curiosity and wonder, vital for learning.

I recommend this textbook with confidence to all children and teachers at the Preparatory Stage. I extend my gratitude to everyone involved in its development, hopeful that it will meet the expectations. As NCERT remains committed to systemic reforms and improving publication quality, we welcome feedback to refine the contents of this textbook.

DINESH PRASAD SAKLANI

Director

New Delhi
25 March 2025

National Council of Educational
Research and Training

About the Book

The National Education Policy (NEP) 2020 envisions a transformative education system that is deeply rooted in the Indian values and culture. By creating engaging, experiential and exploratory learning experiences, we can turn this vision into reality. The National Curriculum Framework for School Education (NCF-SE) 2023 has introduced The World Around Us as a core curricular area at the Preparatory Stage of School Education for Grades 3–5. The World Around Us helps children discover and connect with their surroundings, fostering a sense of belonging and responsibility. By exploring their physical, social and natural environments, children develop awareness, sensitivity, and a deeper appreciation for the world around them. Encouraging curiosity, hands-on exploration, and connecting with people and objects help children develop a more holistic understanding of the world. Hence, this curricular area is designed to be integrated and interdisciplinary.

Guided by the NEP 2020, the Grade 4 textbook *Our Wondrous World* has been carefully designed to spark curiosity and encourage experiential learning. Through hands-on activities and open-ended inquiries, students explore, investigate, and discover the world around them. By integrating science, social sciences, and environmental education, the book connects learning to real-life experiences, to enhance problem-solving skills and fostering critical thinking. Ultimately, the goal is to empower students with essential competencies—including skills, knowledge, values and dispositions that foster a deeper understanding and connection with their environment. Through joyful and curious engagement with their surroundings, children deepen their learning and develop a lifelong appreciation for the world around them.

Building on the foundational concepts introduced in the textbook of Grade 3, this book offers developmentally progressive activities and discussion around five units—Our Community, Life Around Us, Health and Well-being, Things Around Us, and Our Environment. Each unit follows a consistent and engaging structure, carefully designed to captivate young learners. Every chapter within the units includes; an interactive dialogue or narrative, observation and inference activities, experiments, field visits and exploration. For

instance, in Unit 4—Things Around Us, the chapters begin with interactive dialogues. These dialogues spark curiosity and encourage children to explore, and investigate the phenomenon further. By changing conditions and drawing inferences, students develop a deeper understanding the scientific processes. Similarly, the 'Nature Trail ' in Unit 2 helps children to understand the importance of conserving resources for a balanced and harmonious way of life.

Each chapter presents content in a child friendly manner and encourages active participation of the children in the learning process. Engaging puzzles and riddles spark curiosity in children, bringing a smile to their faces and making learning a joyful experience. The self-explanatory illustrations are designed to foster observation and critical-thinking skills in children. The language and concepts presented in the book are carefully crafted to be age-appropriate, reflecting the diversity of our country. To promote diversity and inclusivity, the book incorporates varied activities and discussions. Additionally, the rich Indian Knowledge System is integrated into the content and illustrations, enabling children to appreciate and connect with vibrant culture, and heritage of our country. Indigenous practices are highlighted through case studies, illustrations and activities. Social phenomena are explored through diverse experiences such as interaction with family members, neighbourhood surveys, and peer conversations. The development of essential values and dispositions is fostered through activities emphasising care, concern, and respect for nature. By empowering children to make responsible choices, this approach aligns with the noble vision of 'Vasudhaiva Kutumbakam'—a world united as one family.

Each unit begins with a concept scheme, outlining the desired competencies and expected learning outcomes for each chapter. The content is presented in an interactive and engaging manner. Employing the developmentally appropriate pedagogical approaches, including play-based, theme-based, toy-based and inquiry-based methods, ensures that the learning process remains child-centric, engaging, and enjoyable. To support teachers, the 'Notes to the Teachers' provide additional clarity and guidance for facilitating activities. Each chapter also features intriguing facts in the 'Do you know' section, encouraging children to think critically and explore the topics more deeply.

Efforts were made to celebrate the linguistic diversity of our country by providing context-specific examples and activities that encourage children to explore equivalent terms in various Indian languages. The integrated approach is evident throughout the

book. For instance, the Chapter 9—Different Lands, Different Lives revolves around the central theme of various landforms—plains, deserts, coastal regions and mountains—and their influence on socio-cultural aspects such as food, clothing, art, and housing. Through an example of a visit to four states of our country, the chapter captures the essence of diversity and emphasises the importance of appreciating the rich cultural diversity around us. It also highlights how we successfully overcome challenges, showcasing resilience in the process. Exploration of things around us is planned for children to get hands-on experience of the scientific process, but without introducing scientific terms. The chapters have a seamless blend of tradition and modernity. While the book provides opportunities for students to explore India's rich heritage, it also highlights the significance of technology in daily life.

The book adopts an integrated assessment approach, where assessment strategies are flawlessly integrated with pedagogical methods. By avoiding the burden of assessment, learning activities are assessed through multiple modes. This includes, creating art forms, discussion and writing activities, open-ended inquiries, field-based projects, conducting simple experiments, etc.

The 'Let us reflect' section provides students with an opportunity to summarise their learning from the chapter. The activities in the book serve as suggestions, allowing teachers the flexibility to design additional activities as needed.

With *Our Wondrous World*, we strive to provide children with dynamic and engaging learning experiences. We aspire for this book to spark curiosity in children and enrich their learning experience of the world around us.

DHANYA KRISHNAN
Associate Professor and Member-Coordinator
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CONSTITUTION OF INDIA

Part III (Articles 12 – 35)

(Subject to certain conditions, some exceptions
and reasonable restrictions)

guarantees these

Fundamental Rights

Right to Equality

- before law and equal protection of laws;
- irrespective of religion, race, caste, sex or place of birth;
- of opportunity in public employment;
- by abolition of untouchability and titles.

Right to Freedom

- of expression, assembly, association, movement, residence and profession;
- of certain protections in respect of conviction for offences;
- of protection of life and personal liberty;
- of free and compulsory education for children between the age of six and fourteen years;
- of protection against arrest and detention in certain cases.

Right against Exploitation

- for prohibition of traffic in human beings and forced labour;
- for prohibition of employment of children in hazardous jobs.

Right to Freedom of Religion

- freedom of conscience and free profession, practice and propagation of religion;
- freedom to manage religious affairs;
- freedom as to payment of taxes for promotion of any particular religion;
- freedom as to attendance at religious instruction or religious worship in educational institutions wholly maintained by the State.

Cultural and Educational Rights

- for protection of interests of minorities to conserve their language, script and culture;
- for minorities to establish and administer educational institutions of their choice.

Right to Constitutional Remedies

- by issuance of directions or orders or writs by the Supreme Court and High Courts for enforcement of these Fundamental Rights.

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Constitution of India

Part IV A (Article 51 A)

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 so;
- (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, wildlife 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.

Note: The Article 51A containing Fundamental Duties was inserted by the Constitution (42nd Amendment) Act, 1976 (with effect from 3 January 1977).

*(k) was inserted by the Constitution (86th Amendment) Act, 2002 (with effect from 1 April 2010).



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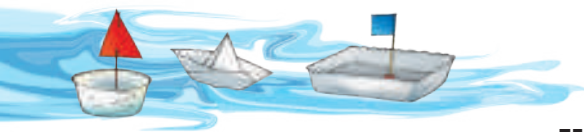
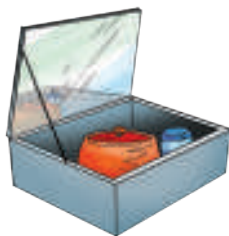
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THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a ¹**[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the ²[unity and integrity of the Nation];

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949 do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

1. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
2. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Unity of the Nation" (w.e.f. 3.1.1977)

Our Community

About the Unit

We all depend on each other in some way or another. We live in our communities, sharing space and resources. Regular interactions and celebrations enrich our bonds, creating a sense of belongingness. Communities thrive on cooperation, communication, and mutual respect in their social and natural surroundings.

Students explore community institutes around them including schools, hospitals, banks and markets. They understand the role of people, tools used, and their contribution to

the development of a more inclusive and sustainable society.

They get familiarised with how transportation helps in the movement of people and various goods. Similarly, they also learn how the communication has improved steadily. With time, both transportation and communication have improved connectivity.

They develop a sense of direction and ability to locate various places through landmarks by drawing, sketching, identifying and reading maps.



Note to the Teacher

This unit consists of Chapter 1— Living Together and Chapter 2— Exploring Our Neighbourhood. The key concepts covered in these chapters are listed below.

Chapter 1

- ‘Living Together’ helps students understand the community as a space of togetherness and interdependence. The story of Van Mahotsav helps students value their natural surroundings and public properties through mutual cooperation, and care.
- They also discover a culture of sharing and collaboration in all festivals celebrated by the different communities in the country. Students will learn to lead and work together, making a difference to their own life and the community.

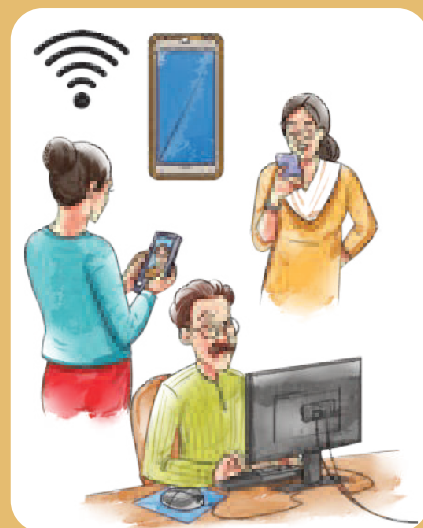
Chapter 2

- Students look at various types of transports around them. They also learn about various modes of communication. They realise how transportation and communication have evolved over the years. Faster travels and communications have made significant changes to our lives, and activities in the world.
- Students will get to know the role of various community institutes. They also learn the basics of financial literacy by interacting with people in banks. They will learn to draw and read simple maps through a series of activities. They will also learn to identify landmarks, directions to navigate their surroundings.



Teacher to Facilitate

- The teacher would arrange relevant, low-cost materials like maps, charts, photographs, observation sheets and other materials for activities.
- Organise short field visits to places like post offices, banks, and parks.
- Invite local skilled personnel such as gardeners, postal workers, or bankers for interaction.
- Guide students in mapping routes, making posters, conducting interviews, and participating in community tasks like cleanliness drives and tree plantations. Help students to compare modes of communication in past, and present and find out how the changes have enhanced the speed and ease of doing various activities.





0435CH01



1 Living Together

A Tour Around My Village

My name is Chandan. I live in a beautiful village. There is a big playground near my house. After school, I go there with my friends to play *kabaddi* and other games. There is a big banyan tree at the corner of the playground, under which our elders gather to talk with each other. Come, let me show you around!





Write

Look at the picture of Chandan's village.

What do you see in the picture? Describe below.



Activity 1

Explore your locality; observe the people and places around you. Write your observations about how the people and places you see are connected to each other in the table given below.

Place/People	Connections between people and places
Shopkeeper	• Sells goods like food items, clothes and products for daily needs. • Sells local products. • _____
Road	• Connects people living in different areas. • Allows easy movement of goods and services. • _____
Health Centre	• Provides treatment for illness. • _____ • _____
Police	• Provides safety. • _____ • _____
School	• _____ • _____ • _____





1. Why do you think it is important to have places like parks, schools, hospitals and bus stops in your locality?
2. How would life be different if one or more of these places in your locality did not exist?
3. What can you do to keep these places clean and safe?

People and places are part of our community. There are schools, markets, playgrounds and roads that everyone uses. Public places are used for various purposes like playing, relaxing and meeting others. People also come together to clean and decorate them on various occasions. These shared experiences bring us closer and create beautiful memories.

Van Mahotsav: A Festival for Planting Trees

Van Mahotsav was to be held soon and everyone was getting ready for the celebrations. Chandan and his school friends were very excited.

John : On this Van Mahotsav, we will clean the park near our school and plant trees around the park.

Mallika : My grandmother comes here with her friends every day for a morning walk. If we clean up the park and plant trees, they will enjoy their walks much more and will have better air to breathe.

Chandan : Yes, let us invite our family members too for this celebration.



Do you know?

Van Mahotsav, also known as the Tree Planting Festival, is celebrated every year in India during the rainy season, from 1 July to 7 July. People plant trees to protect the environment and make the earth greener.



Activity 2

Let us create a colourful poster to help Chandan and his friends invite people from their neighbourhood to participate in the Van Mahotsav.

Helping Hands in the Community

Children were happy as their parents and other villagers joined in. Everyone wanted to make the celebration special. They gathered under the big banyan tree near the playground to plan out the festival. The parents decided to help too.

Sheela : The park where we plan to hold the Van Mahotsav needs repairs.

Sameer : Yes, the park has been part of our lives for years. I have some wood and nails at home. I can fix the benches in the park.

Babita : I will repair the street light next to the park.

Note to the Teacher

The teacher could provide necessary material for poster making, such as chart paper, sheets and colours, etc.



Noor : I will bring some saplings from my plant nursery. Then, we will plant them along the boundary of the park.

Babita : If we all work together, the park will be ready in no time. Van Mahotsav will be so much fun!

Every villager came forward to contribute in some way or the other.

Activity **3**

1. Identify the people who help in maintaining your locality. What are their vocations?



2. Look at the table below. List different kinds of work required for developing and maintaining the park. Also, mention the material, tools and skills required. An example is given here.

People at work	Occupation	What they do	Material/Tool
	Mason	Mending walls using bricks and cement.	 Trowel
			 _____
			 _____
			 _____
			 _____

3. Find out from your family members or neighbours about their work. What questions would you ask them? Here are some examples:
- What do you like the most about your work?
 - What types of tools or things do you use?
 - What challenges do you face?

Celebrating Van Mahotsav

The children gathered in the park with their families to celebrate Van Mahotsav. Mallika used a microphone to make announcements. Groups were formed for cleaning, planting saplings, watering, cooking, etc.

Everyone worked together and helped each other. Now, the park looked beautiful with the newly planted saplings, clean paths and painted walls.

Community Bridge Across a River

In Kanker, Chhattisgarh, the Chinar river often overflows in the rainy season. Movement of goods and vehicles becomes very difficult. Reaching schools and hospitals becomes a major challenge.

During one such rainy season in 2024, the entire community came together and built a simple yet strong bridge in just two days using bamboo, stones, and other material. Now, students can reach their schools and villagers can cross the river easily.



Note to the Teacher

Encourage students to locate Chhattisgarh on the Map of India.



DISCUSS

1. It is important for communities to come together in times of need. What do you think about this statement?
2. Do people in your locality come together and support each other? Can you remember one such occasion?

Just as the people of the village came together to solve a problem, our schools and neighbourhoods also rely on people working together as a team.

Do you know?

An ant colony is like a big community of ants, where everyone has a special job, just like in a human community! Some ants collect food, others take care of the babies and some protect their home — just like how people in a community work together to make life better for everyone. Bees also function as a community, with each member having specific roles, such as gathering food, protecting young ones and building hives.

Sharing a Meal

After the tree plantation, Chandan and his friends ran towards the place where food was being cooked. Vegetables and cereals were brought by the people of the village. The meal was a community feast to celebrate everyone's hard work.





Everyone sat together to eat. Children handed out the banana leaves and the other volunteers served food. Everyone chatted in excitement. There were jokes and laughter along with delicious food. After the feast, the leaves were disposed off in a pit.

Do you know?

Leaves buried in a pit becomes manure and it improves the soil quality.



Write

Think about your family or community. How do you work together to help each other while preparing for a festival or any other occasion?



Do you know?

Uruga, the first day of Magh Bihu on the 14th of January, is a time of joy, feast and togetherness in Assam. On this day, people come together to build a hut using bamboo and hay called *Bhela Ghar*. The celebration ends with a big feast, where they cook, eat and dance together.



The Van Mahotsav celebration came to an end. Everyone was tired. Yet, they felt happy that they had worked together, and made the park beautiful and inviting. The children decided to take care of the park from then on.



Do you know?

In Sikkim, when it is time to harvest the crops, people from the community come together to help each other. These people who are specialists in agriculture are called *Khetala*. Such practices help in harvesting crops easily and inculcate a sense of bond amongst people.



Discuss

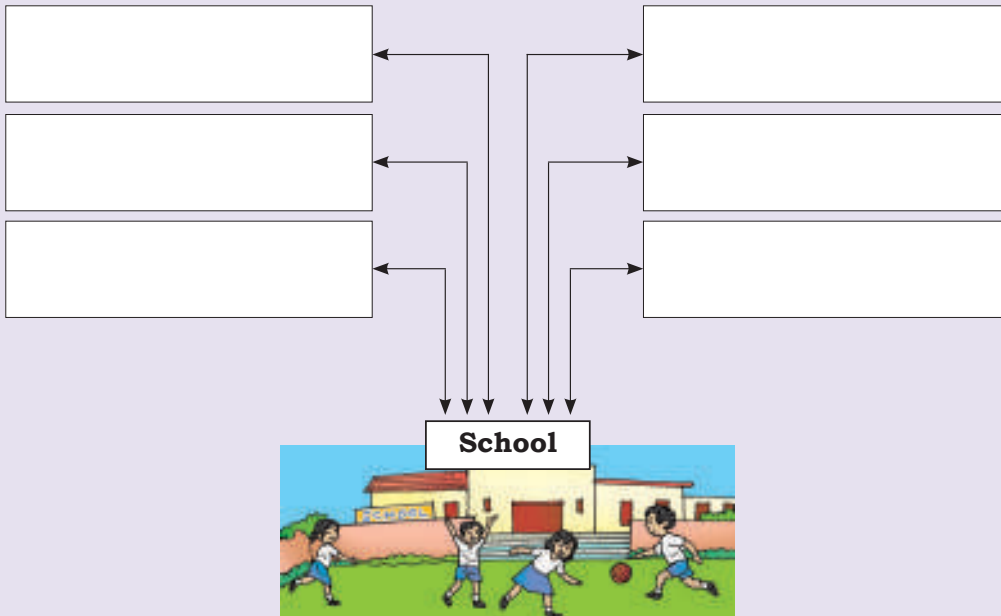
1. What are some of the ways by which we can take care of nature and our neighbourhood? List a few.
2. How does helping others and working together make our community better?



Let us reflect

Our School, Our Team!

1. Write the different role people play in your school — teachers, students, caretakers, bus drivers, etc.



Person	How do they help in the school?
Teacher	A teacher helps students learn new things.
School bus driver	

- (a) Why is it important for everyone to work as a team in a school?
- (b) What is your role as a member of your school community?

2. Form small groups of 4–5 students. Choose one fun activity to perform from the list below:

- (a) Tree plantation
- (b) Cleanliness drive
- (c) Making artefacts with materials from nature (something useful like a leaf-plate or a decorative item like a garland).

After the activity, fill out this table:

Group Name	Activity chosen	Material used	What did you learn?

3. Match the riddles with their solutions hidden in the pictures.



- (a) I am a place where people wait,
To catch a ride, and not be late.
Buses come and buses go,
To places high and low.

Ans: _____



- (b) I keep letters far and near,
With stamps and parcels waiting here.
Write a note and drop it in,
What am I? Can you guess and win?

Ans: _____



- (c) I am full of colours, lights,
sounds of feet,
A place where people shop and meet.
Fruits, vegetables and other goods are found,
What am I, busy all around?

Ans: _____



- (d) I am a place where you run and play,
With swings and slides to enjoy your day.
Laughter here is a common sound,
What is my name? Have you found?

Ans: _____



Choose a public place of your interest, and create a similar riddle about it for your friends to solve.

4. Create three groups in the class. Each group would think about a situation in their locality that needs to be improved. Identify activities that can make a difference to the situation. This could be related to cleaning, helping others, organising an event, etc. Complete the table below.

Group	Situation	Activity	Your role
Group 1			
Group 2			
Group 3			

After completing the table, discuss and answer the following questions:

- (a) Do you think working together can make your activities more useful? Give reasons.
 - (b) How will your involvement in these activities help the community?
5. Ask your family about any one special skill or craft (for example — basket making, wall painting, pottery) that is famous in your region.





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2 Exploring Our Neighbourhood

On Our Way Back Home

The classes got over and the school bell rang. Students talked with excitement about the wonderful books that their teachers showed them in the library. School buses and e-rickshaws were waiting at the gate.

Navya saw her grandfather standing outside the school gate. She ran up to him, “Dada ji, let us take the market route today!”

They walked to the bus stop, where some people were already waiting for the bus.



A bus stopped, the doors opened and everyone boarded the bus one by one. Navya found a seat by the window and watched the people outside.

As the bus passed a red postbox on the corner, Navya pointed to it and said, “Look, a postbox, Dada ji!”

Dada ji said, “Yes, Navya. You could write a letter and post it here”. He continued, “When I was young, I used to write letters to my brother, who was

studying in a different city. I used to drop letters into the postbox. Then, the postman would take them to the post office. The post office would sort letters according to regions and send them to their destinations. Post offices offer a variety of other services too”.



Activity 1

1. Write a letter to a friend and post it using the postbox.
2. Teacher can take students on a field trip to a post office, to explore various activities that take place there.

Note to the Teacher

Encourage students to write letters to each other in pairs or cyclically in groups of threes, so that all students both send and receive letters. The idea is that the students experience letter writing, and the joy of sending and receiving letters. Explain to the students about the importance of togetherness and communication.



Write

1. Have you or your family members ever sent, or received a letter or a parcel?
2. How does the post office help people stay connected with each other?

Do you know?

Long ago, people communicated using drumbeats and carvings on rocks.



Later, people started sending letters carried by messengers and pigeons.

Much later, the postal service came into being. It was used to send letters, parcels and important documents to others.



With time, new inventions like the telephone, radio and television made it easier to communicate, and share information.

Today, we have mobile phones, and computers that use internet. The internet helps us connect with anyone and anywhere, in seconds!



“Did you not have mobile phones?” Navya asked. Dada ji laughed, “No Navya. Earlier, we used to write letters. Sometimes, it would take weeks to get a reply”. “That is a really long time!” Navya exclaimed. Dada ji replied, “Yes, with mobile phones and emails, communication is much faster. However, sometimes I miss the joy of writing and receiving a handwritten letter.”



Activity

2

Interview with Elders

1. Discuss with the elders in your neighbourhood and find out how they communicated with each other when they were of your age. Compare their answers to how you and your friends communicate today; and fill in the table below:

Category	Communication in earlier times	Communication in present time
Type of communication	Letter, Telegram	Internet, Social Media, Text Message
Speed of communication		
Frequency of communication		
Language of communication		
Challenges faced		

Over time, the ways in which people communicate have evolved. While letters were common in the past, today messages and video calls make communication much faster. Technology has made it easier for us to stay connected with everyone.



Discuss

1. Letters took a long time to reach other persons. How do you think it affected communication between people in the past?
2. How is it different from the way people communicate now?
3. Today quick messages make sharing the news easier, but sometimes wrong information spreads very quickly too. How can we ensure the news we share is true?



The bus took a turn and Navya saw a metro train passing by. “Look at that! The train is moving so fast”, she exclaimed.

“Navya, the metro trains travel very fast. Also, there are high roads known as flyovers. They help vehicles move above the busy roads and crossings. So, they save the time of travellers.”



Note to the Teacher

Encourage students who have travelled by a metro train to share their experiences, describing what they saw, how they got the tickets and what they found interesting.

“Some flyovers are built for metros, and others are for buses and cars”, explained Dada ji.

Dada ji continued, “These modern facilities and services, such as flyovers and metros have made life easier for us. However, many animals, birds and trees that used to be here are no longer around because of all these changes”.

Navya replied, “I wonder if we can have such developments even while keeping our environment safe and secure”.

Dada ji said, “Yes, that can happen by creating a balance. If we plant trees, we can keep our environment secure”.

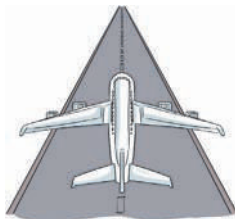


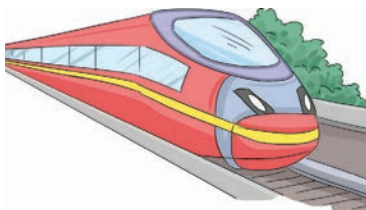
1. Which mode of transportation do you use the most?
2. Can you identify the structures in the pictures, and explain how they have made travel faster and connectivity better?















How did your parents and grandparents go to school or other places, when they were of your age? Is it different from how you travel today? Note it down below.

You	Parents	Grandparents

After some time, a few people got down at a bus stop which was near a hospital. Navya noticed a banner outside the hospital that said ‘Eye Check-up Camp’. Many people were going to that hospital.

“What is this? Why are so many people coming here?”, she asked, her eyes got wide with wonder.

Dada ji replied, “Navya, this is a hospital. People come here when they are unwell. I brought your grandmother here for her eye operation a few years ago. The doctors helped her see better, and it made a huge difference to her life. This hospital is such an important part of our community. Today, it is organising an eye check-up camp”.



List the people who work at a hospital or a health centre; and write down their role in the following table. One example has been given in the table.

People	Role in the Hospital/Health Centre
Doctor	Treats patients and prescribes medicines.
Nurse	



Savings for the Future

The bus stopped at the bus stop near their house. Dada ji and Navya stepped out of the bus. On the way home, they walked to a bank that had an ATM.

“What is this machine, Dada ji?”, Navya asked curiously. “This is an ATM, short for Automated Teller Machine”, Dada ji explained. “It helps us take out money anytime we need it.”

Navya asked, “But why do we keep our money in the bank, Dada ji?”.

“Banks are a special place where money is kept safe. They also help us save money for our future needs”, Dada ji replied.

“When I was of your age, we did not have ATMs. We had to visit the bank and wait in long queues. Also, we used Money Orders to send money through the post office.”

“But now, we can use mobile phones to send money online within seconds! Mama (maternal uncle) sent money to my mother to buy gifts for us, this Raksha Bandhan”, Navya said excitedly.

“Yes, technology has made things so much easier”, agreed Dada ji.





Discuss

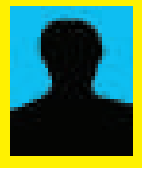
If you had to send money to someone, which method would you choose—using a phone, Money Order or some other mode? Why?



Write

1. If you get pocket money, do you save it? If yes, where do you put your savings?
2. Why do you think it is important to save money?
3. What are some things you could do to save more money?
4. Request one of your family members to show you their bank passbook. Note the important elements given on the first page of the passbook.



CIF Number: Account Number: 1234567890 IFSC Code: ABCDE0007 Customer Name: ABC D/S/O, W/H/O: XYZ Address: abc D.O.B.: 01/01/1990 E-mail: xyz@abc.com PAN Number: xxxxxxxx	 ABCDE Bank Opening Date: 02/02/2012 Mobile Number: 9487xxxxxx Branch Code: xxxxx Branch Location: xyz Branch E-mail: abc.00@abcde.co.in	
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Activity 3

- Visit a bank in your locality or find out from your elders about how a it works. After that, answer the following questions:
 - Other than saving money, what else do people use banks for?
 - What is an ATM and how does it help people?
- Take an Indian currency note. Look at it closely and answer the following questions:
 - What is the value of the note?

 - How many languages do you see on the note?

 - What pictures or symbols are there on the note?

Note to the Teacher

Arrange for a field visit to a bank. Prepare students by discussing what they might see and learn during the visit. Encourage students to ask questions and observe the processes used in managing money and can children learn to fill out deposit slips and withdrawal slips?.

Do you know?

Long ago, people used barter system to exchange goods and services. For example, a farmer could exchange wheat for milk from a shepherd. However, finding the right trade partner and the right exchange value was not always easy. To simplify exchanges, money was invented.



Looking Around the Neighbourhood

As soon as they reached home, Navya ran to her brother and shared her experiences with him.

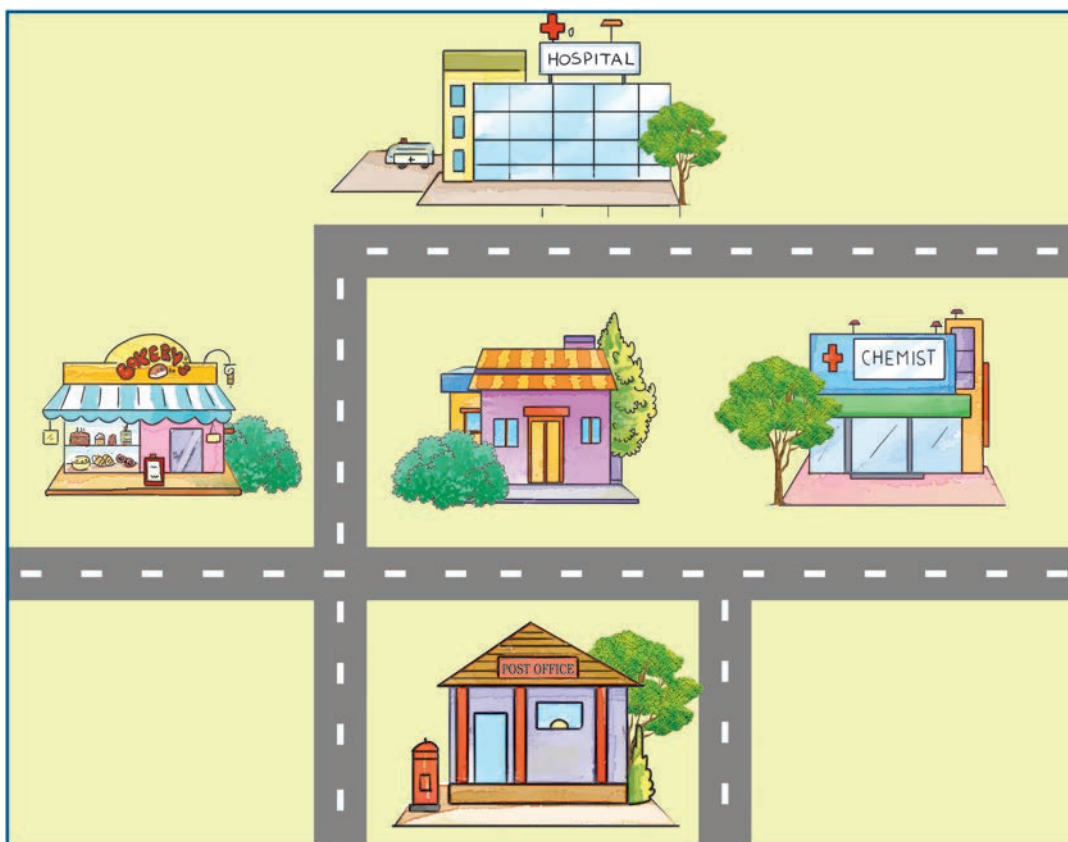
Public places help people by providing services related to health, safety, cleanliness or the environment. These may include places like hospitals, banks, post offices, police stations, public libraries, bus stations, etc.

Navya brought a pencil and paper, and sat down to draw her neighbourhood.

On the basis of the rising sun, she identified the east direction. Based on this, she drew places in other directions around her house.

The places towards the east appears on the right side of the paper. Also, the places to the north are shown at the top side of the paper, while the places in the south are indicated at the bottom of the paper. The places in the west are shown on the left side.

On a map, the representation of directions is as follows—North is shown upwards, South is downward, East is on the right, and West is on the left.

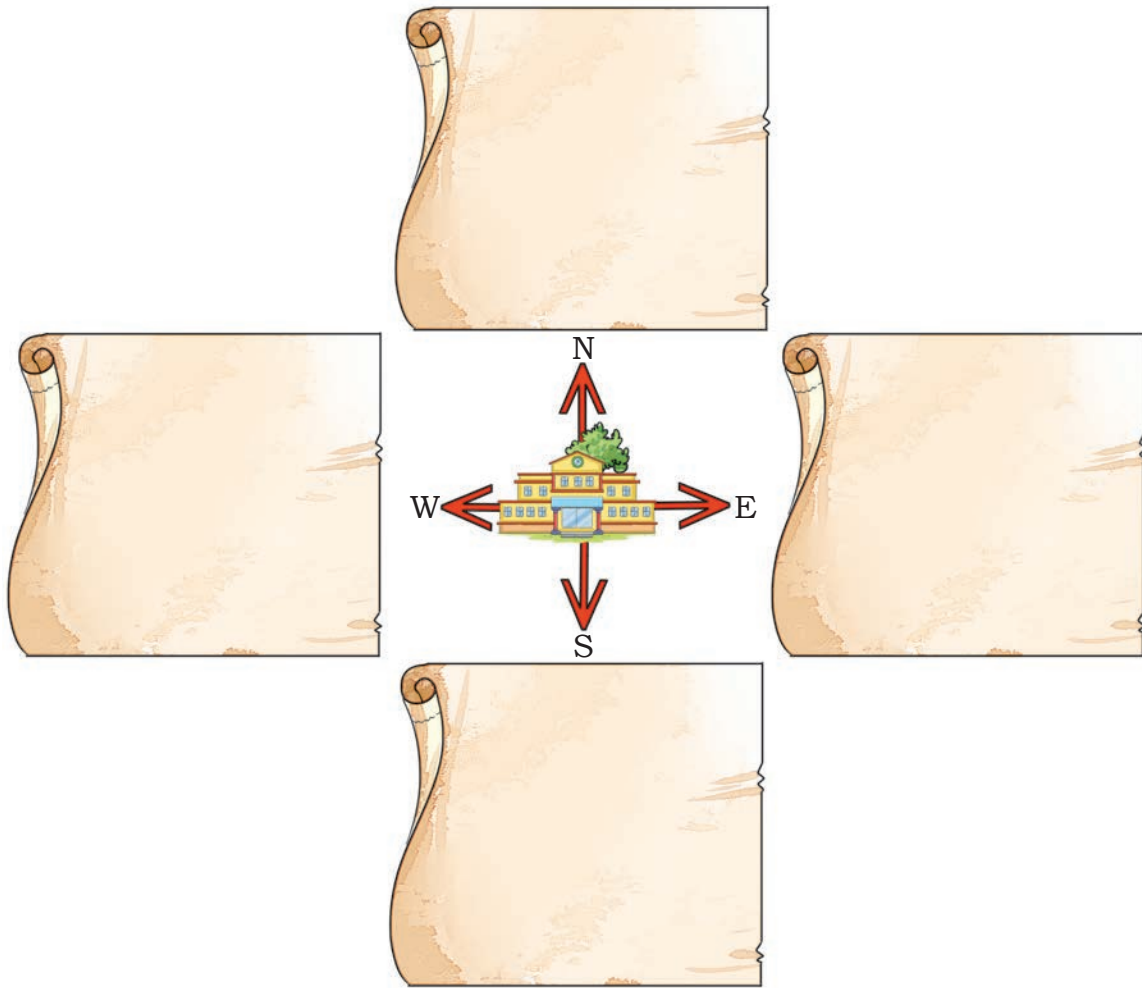


Write

1. Look at the picture above, and write down the places located in the North, East, West, and South of Navya's home.

Direction	Place
North	
East	
West	
South	

2. Look at the picture on the next page, and imagine your school at the centre. Name the buildings or areas near your school and write the direction they are situated in the given spaces.



3. Imagine you are giving directions to a friend to visit your favourite place near your school. How would you explain it using directions and landmarks (left, right, forward, backward, etc.)?

Place: _____

Instruction: _____

Note to the Teacher

Encourage students to identify landmarks that help in recognising a place easily. Give examples of landmarks.



Activity 4

Draw a map showing the route from your school to the public library or any such place near your school. Identify landmarks like parks, shops, hospitals, bus stops, etc. on the map.





Let us reflect

1. Imagine you have ₹ 100 to utilise in a month. Your task is to plan how to spend and save wisely. Think about your expenses for stationery, snacks, toys, etc. Decide how much you will save in your piggy bank and how much you will use for your expenses. After making this plan, think about how saving money could help you in the future.

Use the table below to create your budget:

Category	Planned amount	Why did you choose this amount?
Savings		
Expenditure		

2. Imagine that your group is in charge of making your neighbourhood better. Discuss what new services or facilities you would add or improve. Present how these changes would help everyone in the community.
3. As a class, take help of the elders around you to list people in your neighbourhood who helped the community during COVID-19. These could include doctors, nurses, garbage collectors, shopkeepers, teachers and others. Discuss how they made the community safer and why it is important to thank them.

4. Can you list out the people involved and vehicles used in each of these services in the boxes given below? An example has been given.

Police Station

Police officers

Constables

Patrolling jeep

Hospital

Fire Station

Post Office

Library

Life Around Us

About the Unit

Nature is home to a variety of plants, animals, birds and insects, each playing an important role in our world. Through observation and hands-on activities, students will explore the unique features of different plants and animals, understand their interdependence, and develop a deep appreciation for the environment. Through observation, experience and care, students will imbibe the spirit of 'Vasudhaiva Kutumbakam'—the world as one family.

This unit highlights the connection between nature and culture, showing how traditional practices are associated with different aspects of nature. From studying plants and animals to discovering tribal art, and medicinal plants, students will engage in meaningful experiences that promote conservation and sustainable living. Interactive activities, including festivals and games, will help students recognise the harmony in nature and their role in protecting it.



Note to the Teacher

This unit consists of Chapter 3—Nature Trail and Chapter 4—Growing Up with Nature. The key concepts covered in these chapters are listed below.

Chapter 3

- ‘Nature Trail’ guides students to explore the variety of plants and animals around them, and study their unique features. It shows how all animals and plants are deeply connected to each other. Students will observe the birds, leaves and animals, and play the ‘web of life’ game to understand the interdependence in nature and society. A variety of engaging activities and safety lessons help them appreciate, and care for the natural world.

Chapter 4:

- ‘Growing up with Nature’ portrays how nature and culture are deeply connected in our daily lives — from the food we eat to the traditions we follow. Students will discover some unique features of trees, flowers, tribal art and medicinal plants, while learning about the ways and means of sustainable living. They will also learn the medicinal values of different plants through some engaging activities and safety lessons that will help them appreciate, and protect their environment.



Teacher to Facilitate

- Teacher and students will collect various samples from nature, such as leaves, seeds, flowers, etc., and may use in various activities.
- Arrange nature walks, role-plays and ‘web of life’ games, and prepare observation sheets for students to record footprints, movements of birds and plant details.
- Provide materials for leaf tracing, natural dye making and traditional house models, and guide students in food-picking activities and nature-inspired crafts.
- Organise visits to nature parks, farms or plant nurseries, or invite experts from community or farmers to interact with students about nature conservation and traditional practices.





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3 Nature Trail

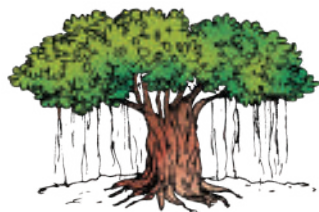


Have you ever seen a banyan tree with its hanging roots touching the ground?

A coloured bird diving into the water?

A spider weaving its web?

Butterflies flying around a flower?



Nature is full of amazing animals and plants. Let us explore more about them!

The Adventure Begins

The students along with their teacher got ready for a nature trail at Pachmarhi, Madhya Pradesh.

Note to the Teacher

Encourage students to locate Madhya Pradesh on the Map of India.



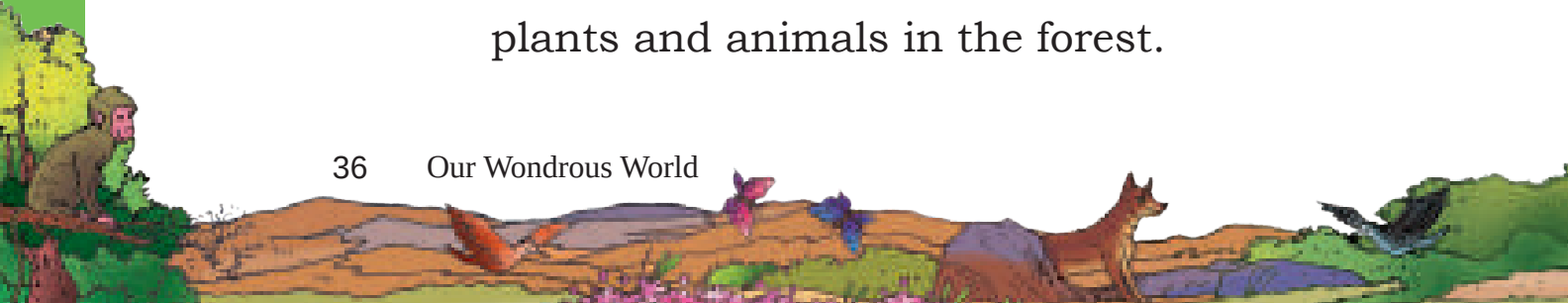
As they reached the forest entrance, the students got excited to see a lot of tall trees and chirping birds.

Abha : Welcome to Pachmarhi!

Teacher : This is Abha Didi, a nature scientist who studies plants and animals. She will guide us in exploring the forest.

Students: Abha Didi, will we see monkeys, deer, snakes, eagles and tigers on the way?

Abha : That is what we have to find out! We must also make sure that we do not harm the plants and animals in the forest.





Write

1. Can you think of rules that should be followed while you are in a zoo or a forest?

For example,

- (a) We should not feed birds.
- (b)
- (c)
- (d)

Now, look at the safety rules given below and match them with your list. Have you missed out any of the rules given?

Safety Rules

DOs and DON'Ts

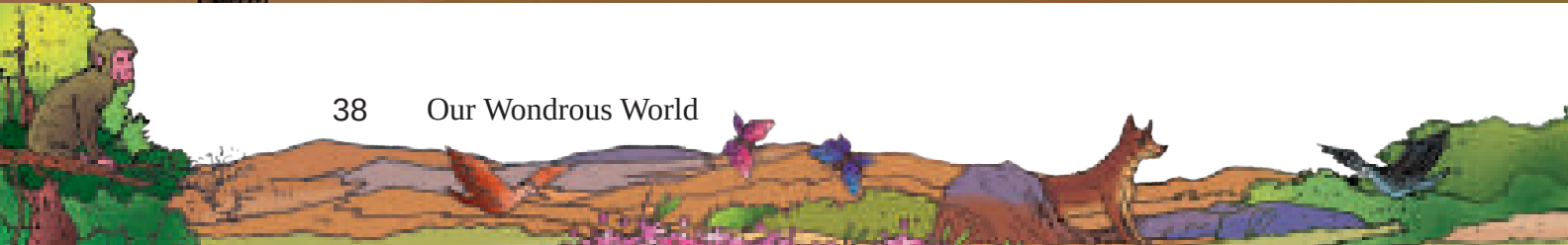
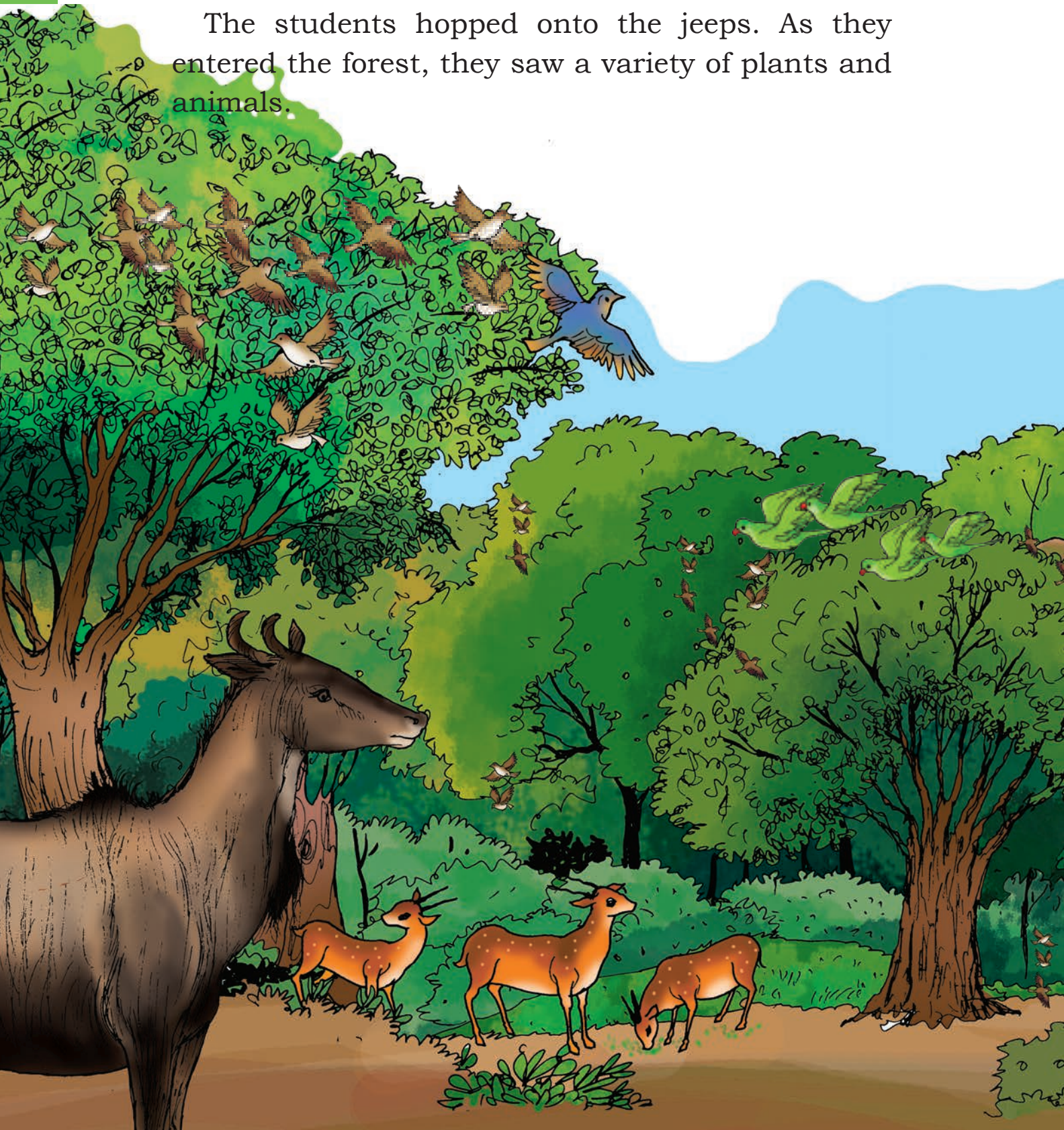
1. Please be careful in a new place.
2. Please do not tease animals.
3. Please do not feed animals.
4. Please do not damage trees, and flowers.
5. Please do not bring pets, firearms, or any kind of weapons.
6. Please do not bring polythene bags.
7. Please do not damage public utilities.
8. Please do not throw any garbage in the forest.



Discuss

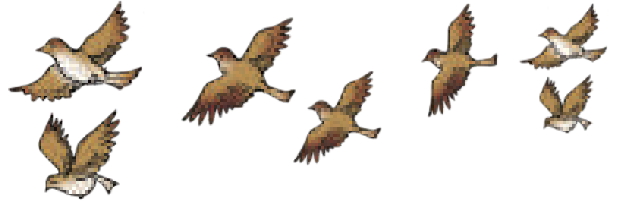
Why are these rules important to be followed?

The students hopped onto the jeeps. As they entered the forest, they saw a variety of plants and animals.





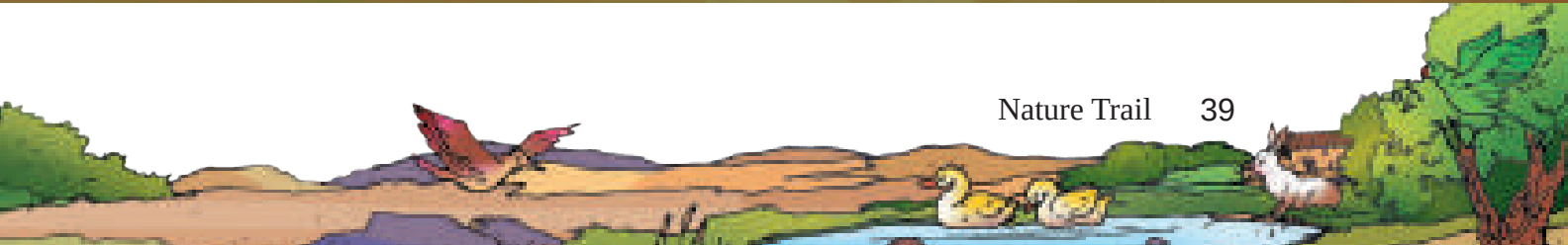
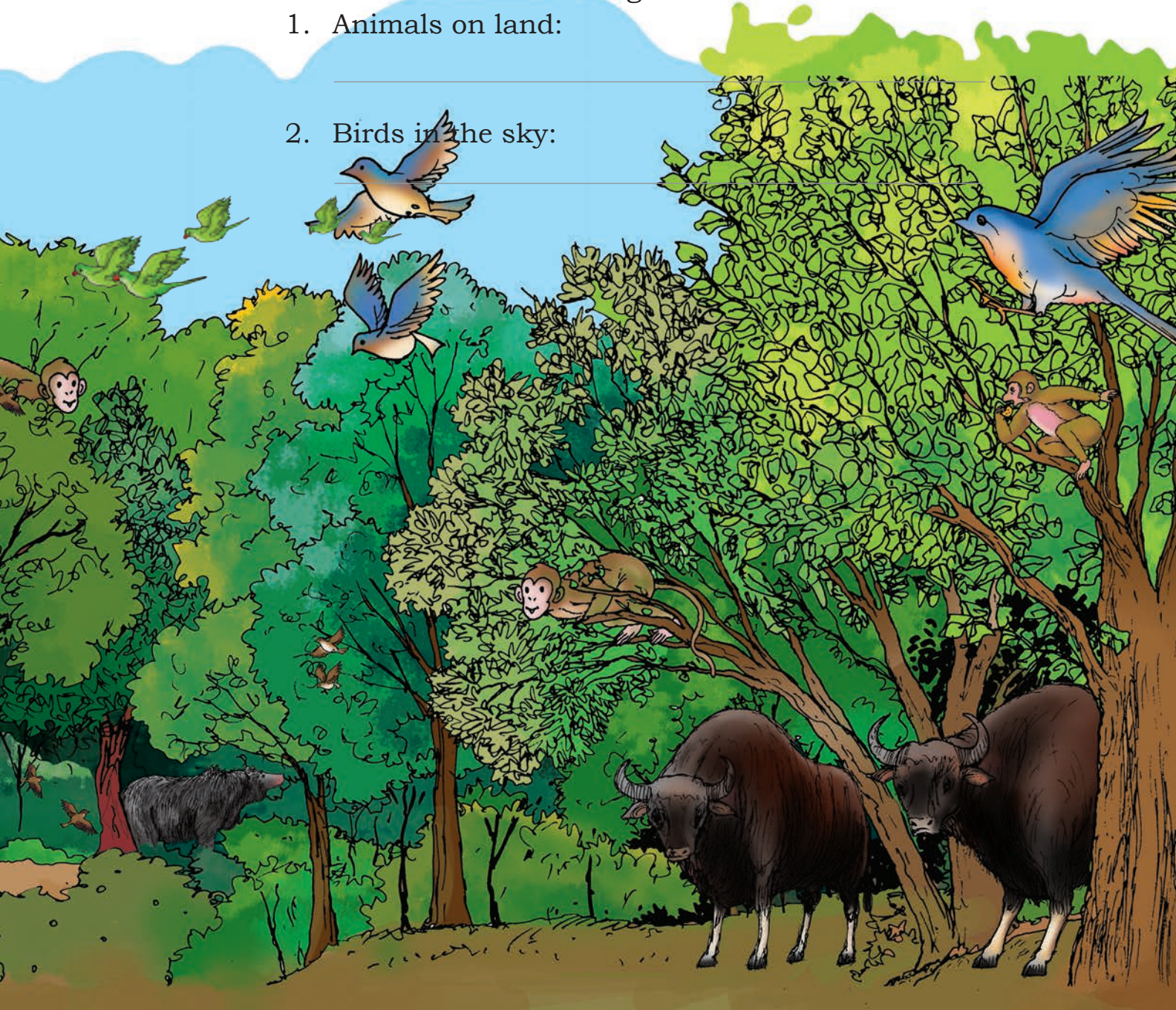
Activity 1



Animals in the Forest

- Look closely at the picture and identify the animals. You may take help from your teacher.
- Divide them into two categories:
 1. Animals on land:

2. Birds in the sky:





Write

Name some animals including the birds that you have seen.
Write any one feature of each of them.

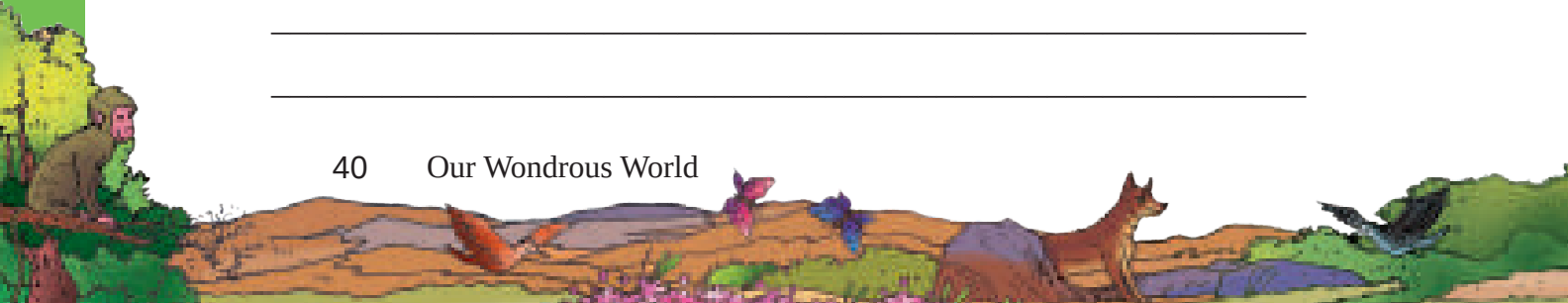
Name of the animal	Feature
Elephant	Long trunk to take food and water
Sparrow	Short and strong beak to crack seeds

Indian Giant Squirrel is a big, red-coloured squirrel found in Pachmarhi and some other places.



Write

Compare its features with the squirrels you see in your area.

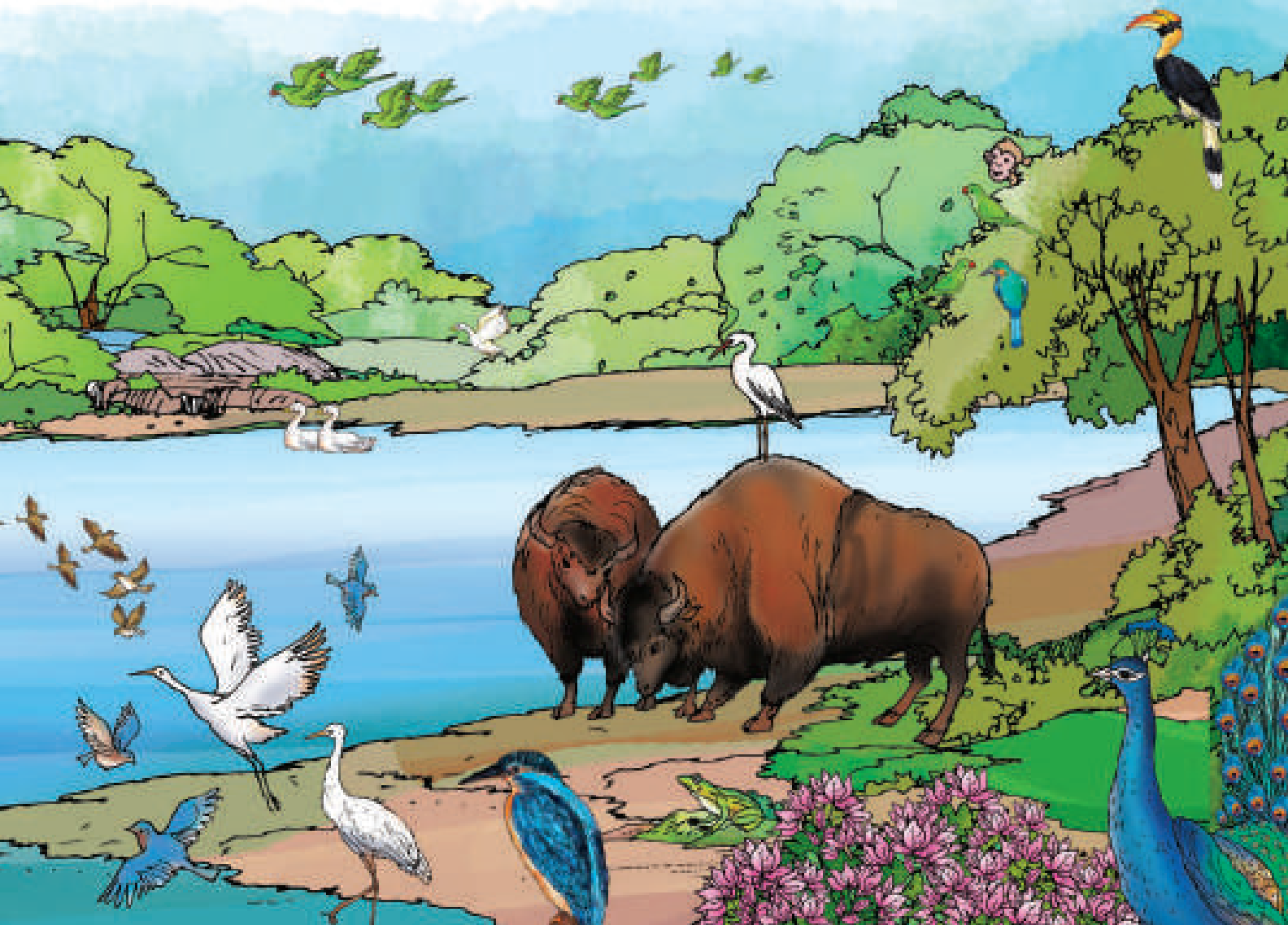


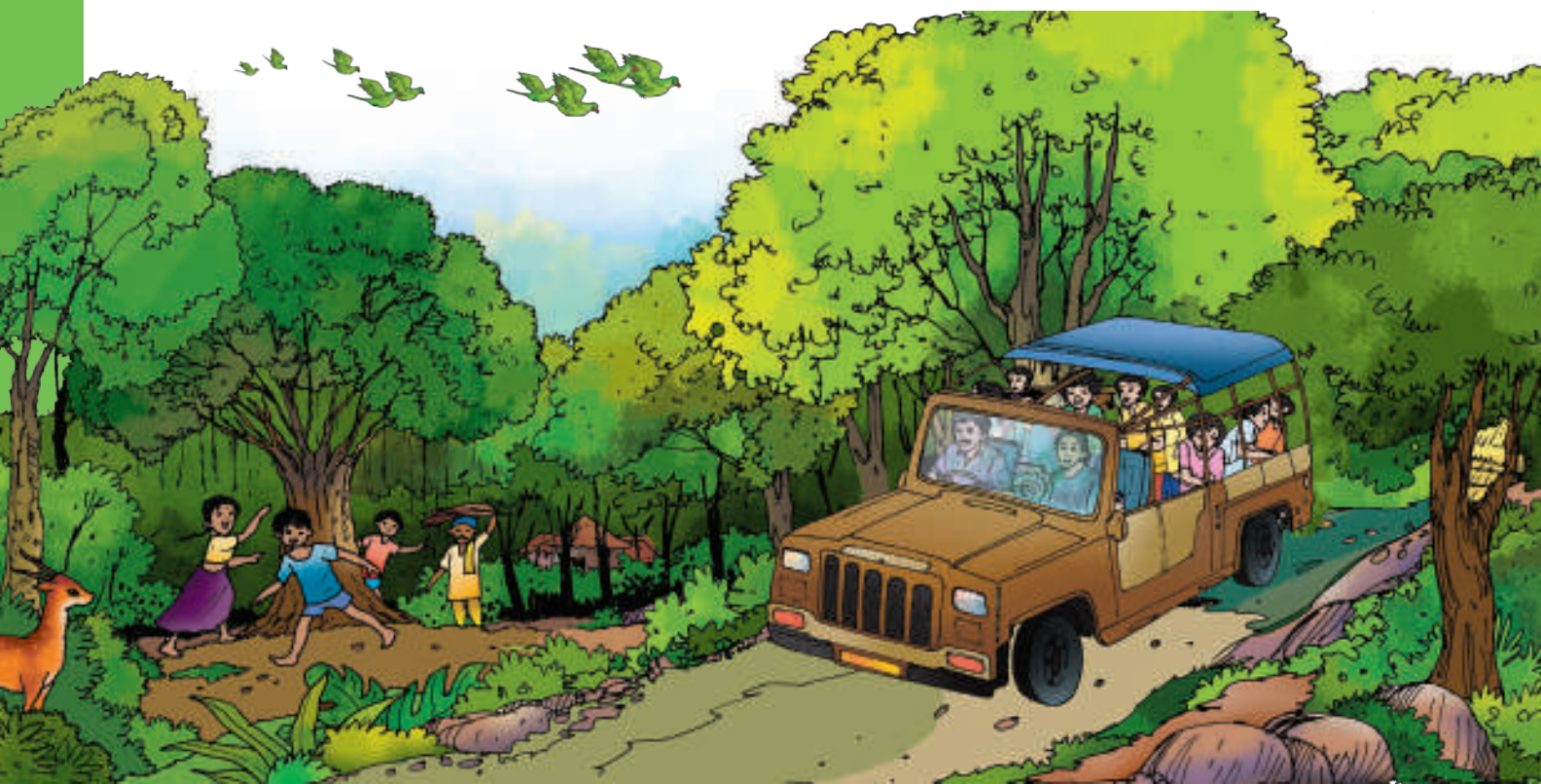
Do you know?

The Spectacled Monkey is the state animal of Tripura. The white patches around its eyes make it look like it is wearing spectacles.



The next stop for the jeeps was near a pond where students were excited to see more animals.





Look at the bison! They look like buffaloes, but they are stronger with shorter horns.

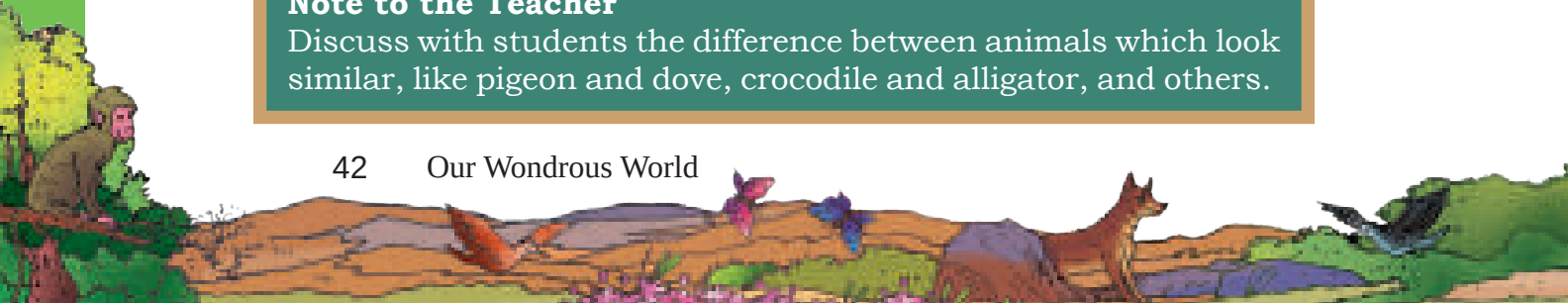
Arya : I wonder which other animals come here to drink water. Look at these footprints in the mud. Which animal might have left these marks?

Sarthak : Hmm... maybe a deer or a tiger? Or, a rabbit? I see one rabbit munching on grass over there!



Note to the Teacher

Discuss with students the difference between animals which look similar, like pigeon and dove, crocodile and alligator, and others.





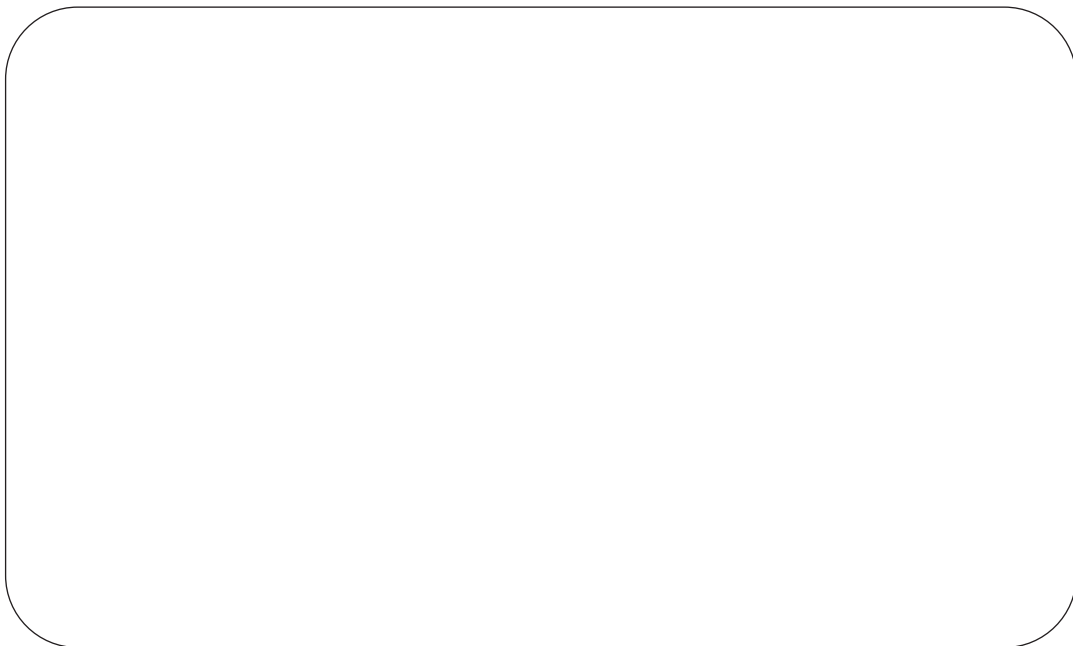
Activity 2



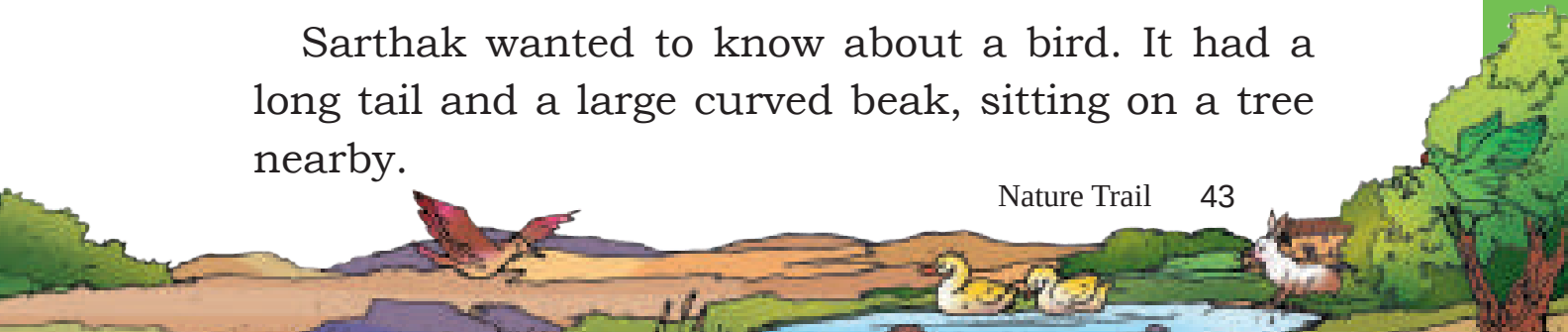
1. Look at the footprints and guess the name of the animals that you think must have come to the pond to drink water.



2. Observe and draw the footprint of any animal in the space given here.



Sarthak wanted to know about a bird. It had a long tail and a large curved beak, sitting on a tree nearby.



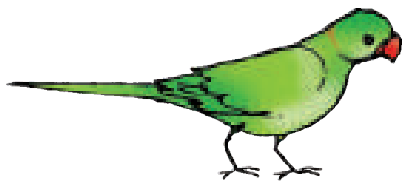


Abha : That is a hornbill. It has a headgear growing out of its forehead like a horn, hence it is called hornbill. Some birds, like peacock, are colourful; while others like owls have sharp eyesight that helps them to see at night.



Write

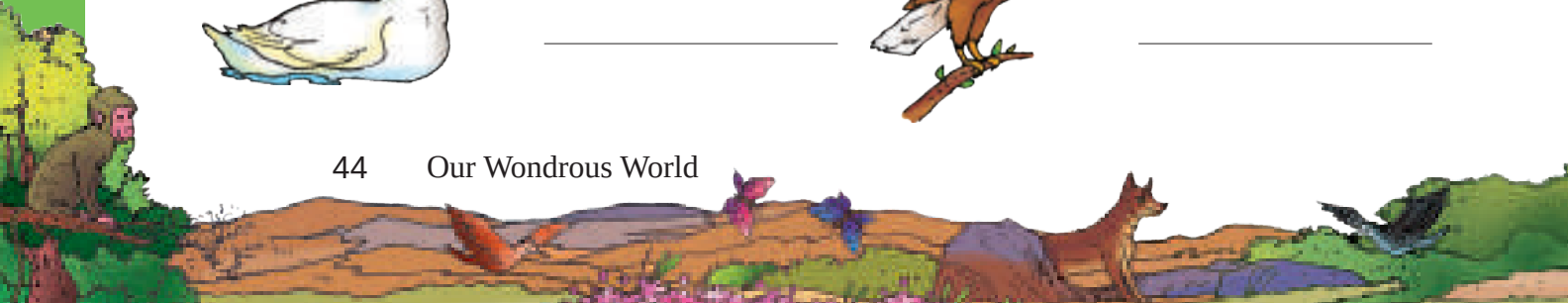
Name the birds shown below.













Activity 3

Take different food items like grains, berries, fruits, nuts, etc., in a plate. Try to pick these food items using a spoon, a toothpick or a pair of sticks. Fill the table below with appropriate tool(s) for picking each of these food items.



Food item	Appropriate tool(s)
Grains	
Berries	
Nuts	
Pieces of fruits	

It is interesting to know that birds have beaks and claws which help them in eating and other activities. An eagle has a sharp, curved beak and sharp claws to catch its prey; while a sunbird has a long beak to drink nectar from flowers. We can guess the eating habits of a bird by observing its beak and claws.

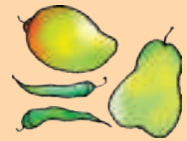
Note to the Teacher

You can use locally available food items and tools to relate the shapes of different types of beaks of the birds, for example tongs or pliers resemble beak of sparrow.



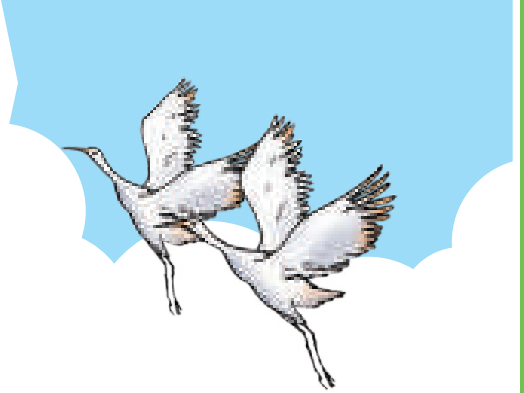


Different birds have different beaks, claws, and varying food habits.





Activity 4



1. Bird Diary

- Go near a tree.
- Close your eyes and listen to the sounds of different birds.
- Now open your eyes and focus on one bird at a time.
- Observe how it moves, what it eats, and where it sits.
- Write your observations in a **Bird Diary**!

For each bird, note the following:

Name _____ Date _____

My Bird Diary



Interesting Facts

Appearance

Head colour: _____

Back colour: _____

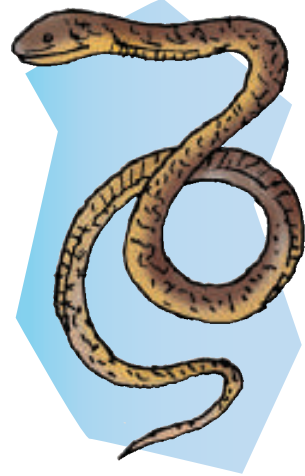
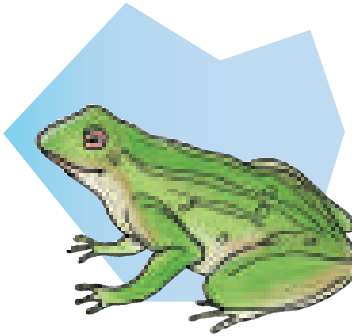
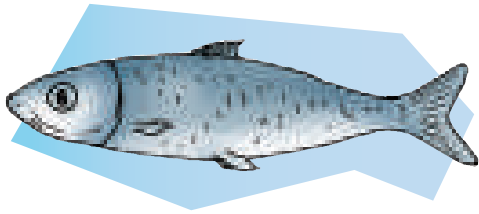
Wing colours: _____

Beak shape: _____

Throat colour: _____

Colour of legs: _____





2. List the animals which live in and around water bodies.
Fill in the table given below.

Name of the animal	Movements
Fish	Swims
Crab	Walks
Frog	Jumps
Turtle	
Crocodile	
Snakes	

Animals which live in water have special features to help them survive. Fish have fins to swim. The *gharial*, a type of crocodile, has a long, narrow, and pointed snout to catch fish. Turtles have strong shells to keep them safe and webbed feet to help them swim easily. Frogs can live both on land and in water.



Tiny Animals

A grasshopper suddenly hopped out from the grass. Everyone was amused.

Arya : This is an insect. It has three pairs of legs, one pair of antennae to sense its surroundings. Insects also sometimes have two pairs of wings, as in the case of flies, grasshoppers, etc.

Abha : Like the grasshopper, you will find many insects in the forest such as ants, beetles, bees, flies, praying mantises, butterflies, etc.

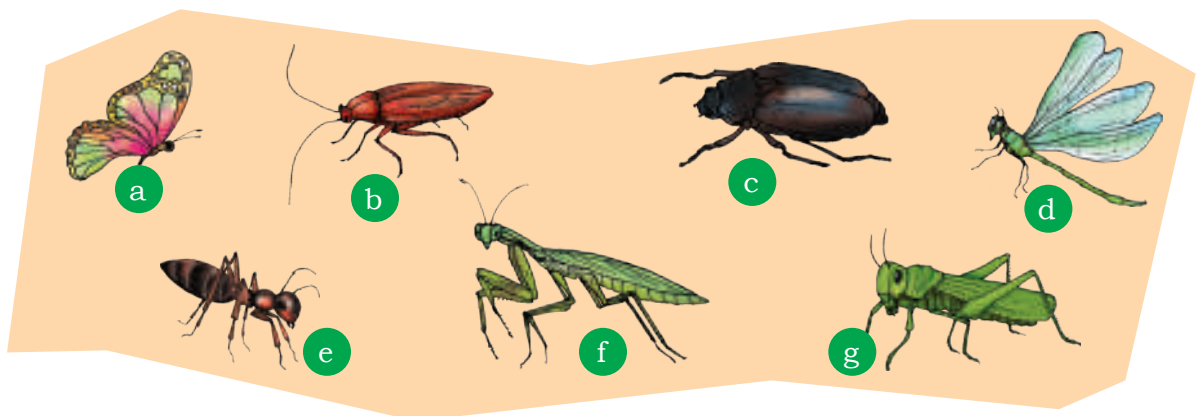


Write



1. What are the insects that you find at your home and in your surroundings?

2. Name the insects shown below.



(a)

(b)

(c)

(d)

(e)

(f)

(g)





There is a wonderful diversity of animals in the forest, each one having its unique features.



Activity 5

1. During the visit to the nature trail, students collected leaves from different plants. Help them identify the plants based on the pictures of the leaves given below.



(a)



(b)



(c)



(d)



(e)



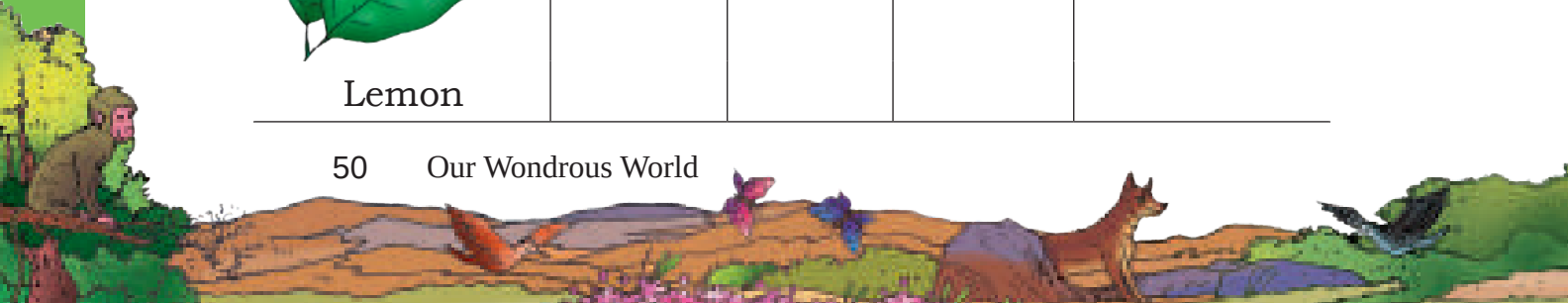
(f)



(g)

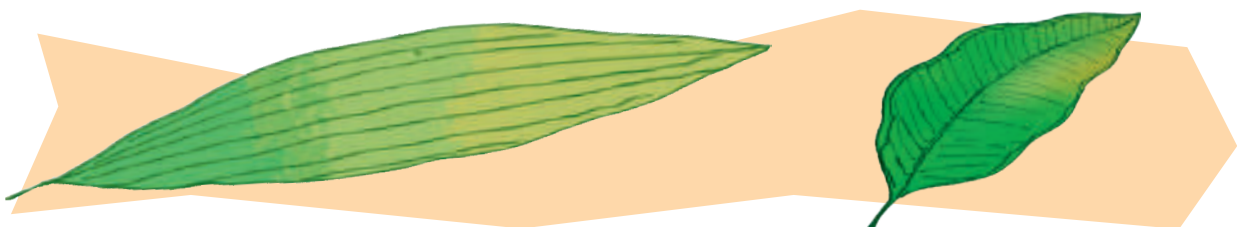
2. Observe the leaves of different plants in your neighbourhood and fill the table.

Draw and name the leaf	Colour	Shape	Texture	Any other observation
 Lemon	Green	Oval	Smooth	Strong smell



Draw and name the leaf	Colour	Shape	Texture	Any other observation

Apart from different colours, textures, and shapes, did you observe that the leaves also have different types of lines on them? These lines are called veins. The images given below show two different types of arrangement of veins.





Activity 6

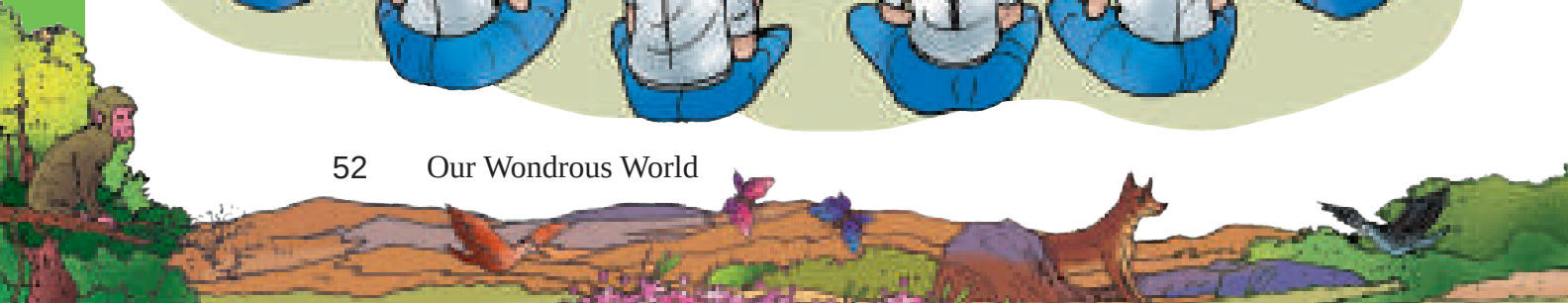
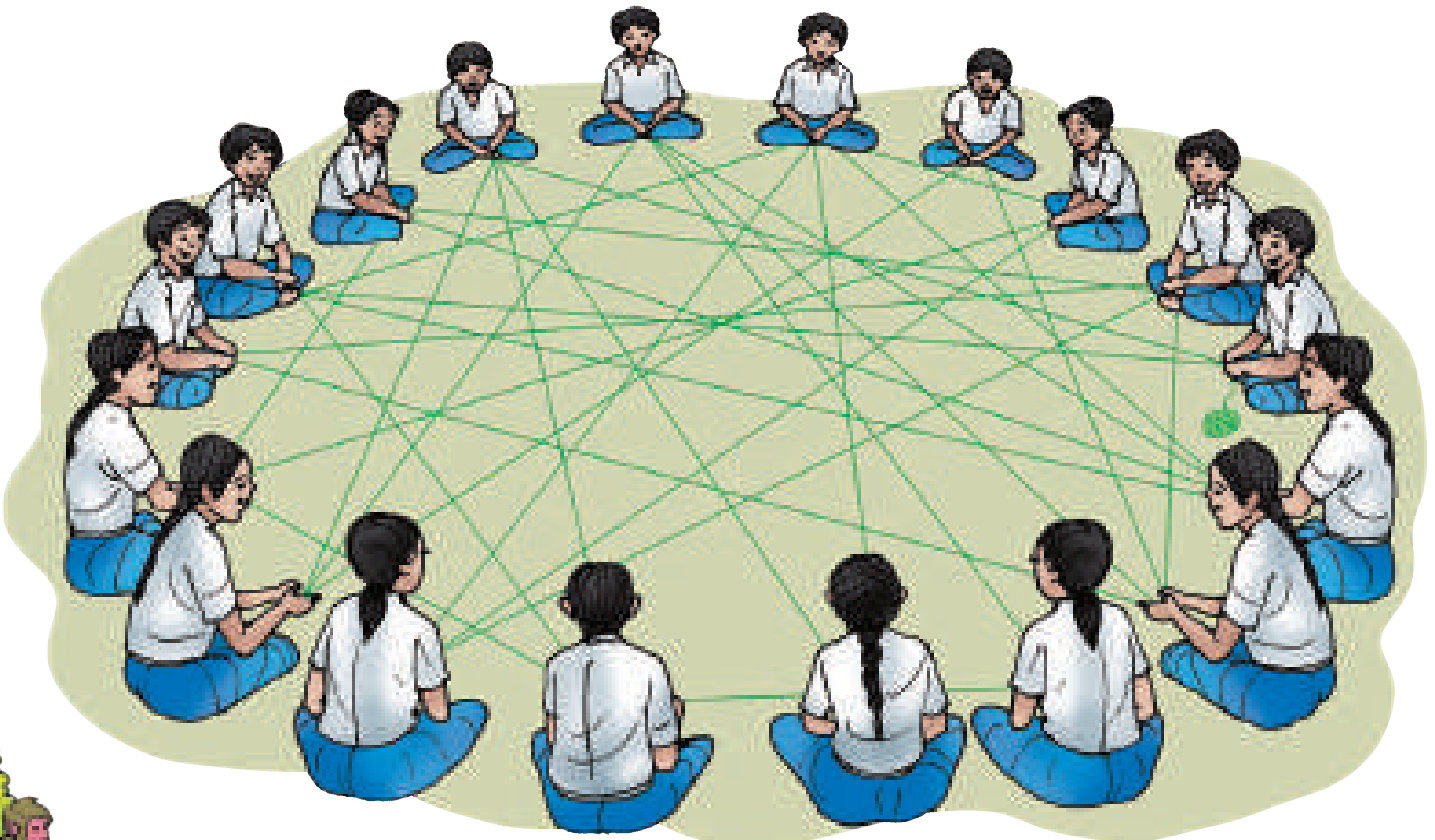
Leaf Autograph

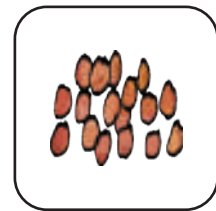
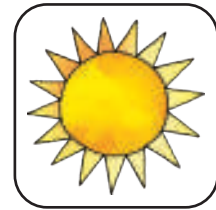
Place a leaf on a notebook with the rough, vein-side facing up. Cover it with a plain sheet of paper. Rub a crayon over the paper, and watch the leaf's shape appear like magic! Try this with different leaves and see how each one has its own unique pattern. Name the plant or tree to which the leaf belongs.



Let us Play the Game 'Web of Life'

Have you ever wondered how all living beings are connected? Let us find out by playing a game! You just have to imagine you are a part of nature — maybe a tree, a bird, or even the Sun.





Note to the Teacher

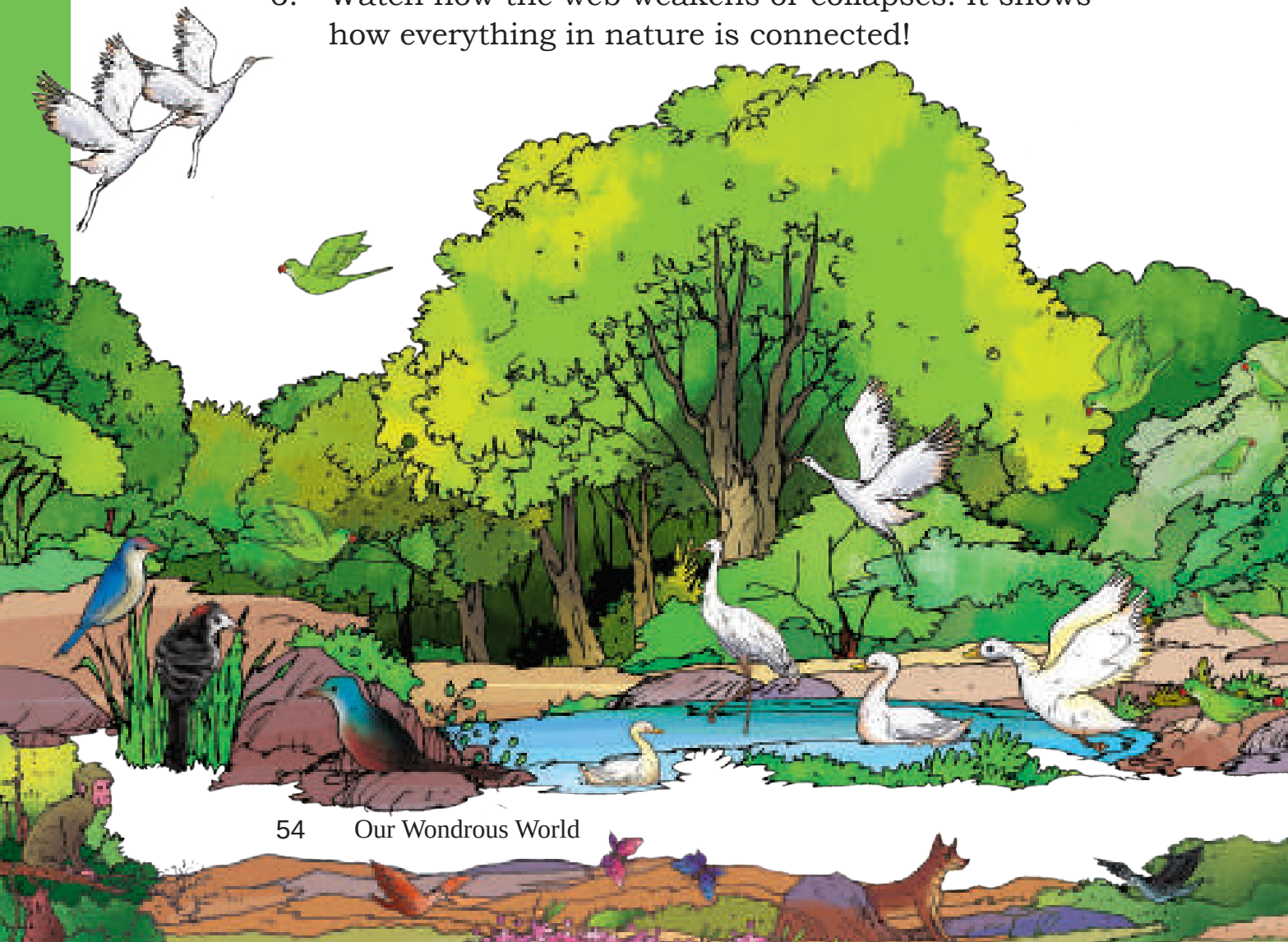
Help the students understand and discuss the role they play in the game, and help them find the connections and interdependence with each other in nature.





How to play?

1. Each player gets a card with the name of a plant, animal, or natural element.
2. One player starts by holding a ball of yarn and think about their connection to other player with similar cards.
3. For example, a tree provides food for a bird or a river supports a fish, the yarn is passed to that player while the first player still holds onto its thread.
4. The web keeps growing as more connections are made.
5. Now, what if one part of the web disappears? Try removing a player, like a missing deer for a tiger or plants for animals.
6. Watch how the web weakens or collapses. It shows how everything in nature is connected!





Let us reflect

1. Which animal would you love to be? What special abilities would it give you?
2. How do you think different plants and animals are dependent on each other?
3. What is the role of a nature scientist?
4. Solve the puzzle.

Find the treasures of the forest.

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

5. Take on the challenge

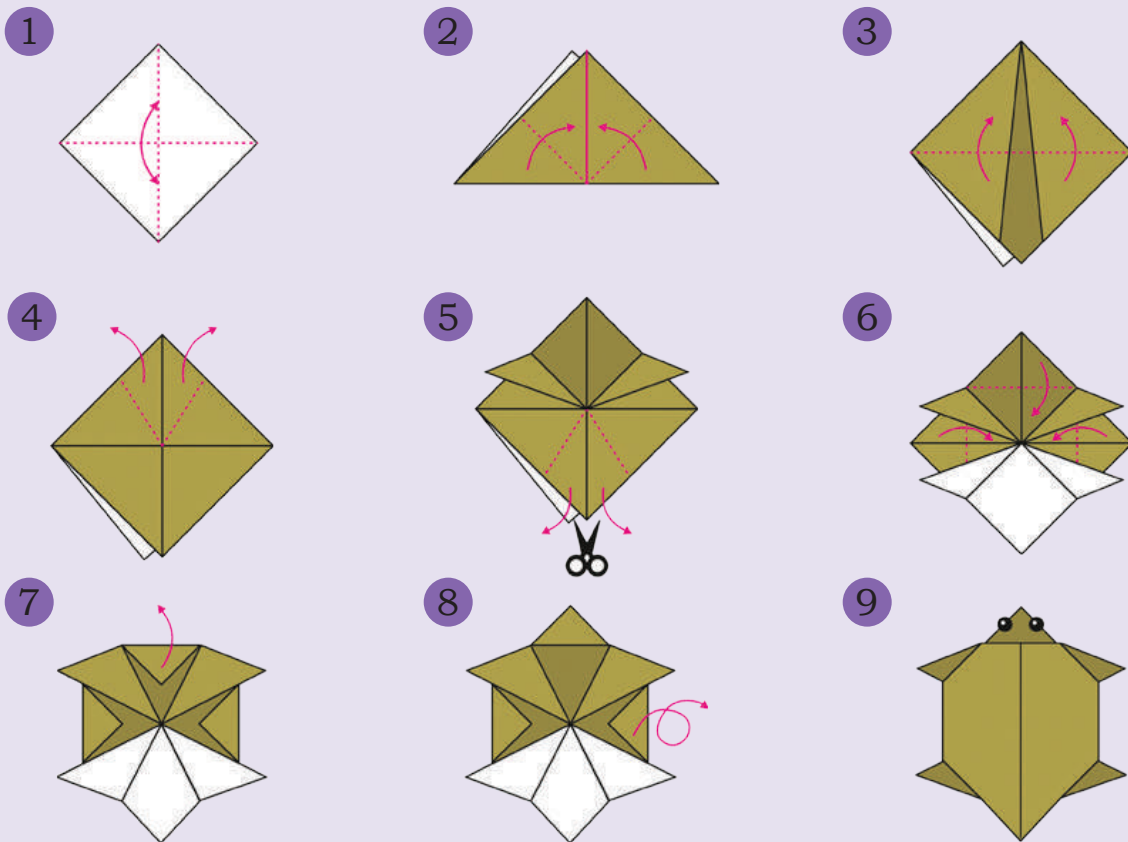
Plan a nature walk with your family or friends in a nearby park. To prepare yourself as a guide, identify few plants and animals, and study their features and interesting facts which you can explain during the walk.



6. Do an activity

Role-play: Create a scene of a forest in your classroom where students can perform roles of plants and animals, and of visitors. While enacting the play, focus on our role to protect animals and plants.

7. Let us make a paper turtle! Try using an old newspaper or used paper.



8. Find out

Write the name of your state animal, bird, and plant.



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4

Growing up with Nature



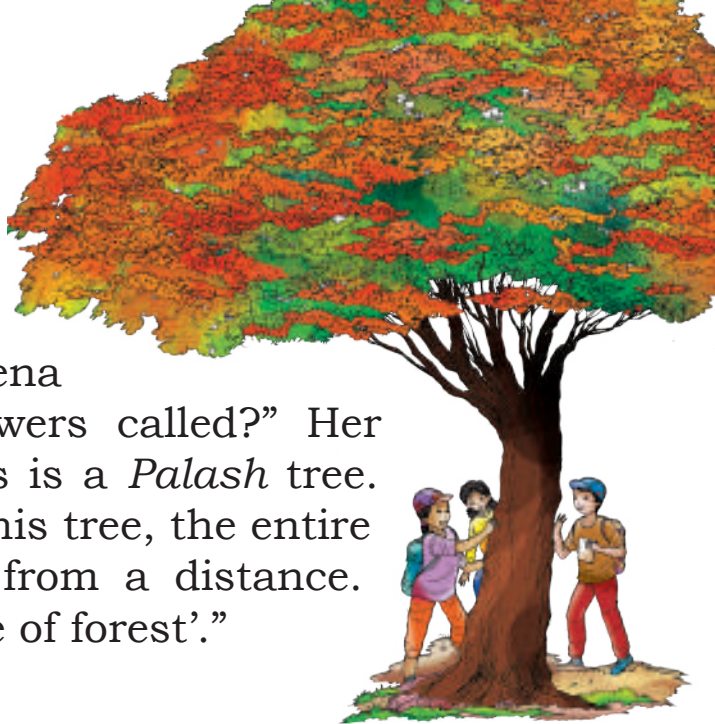
A Journey Through a Forest

Reena and Amit were excited about a family trip. They were going to their village near a forest. It was the time for a harvest festival. Besides that, it was also a special occasion. On that day, their village was also going to be a fully solar-powered village! They could not wait to see the whole village lit up for the celebrations.



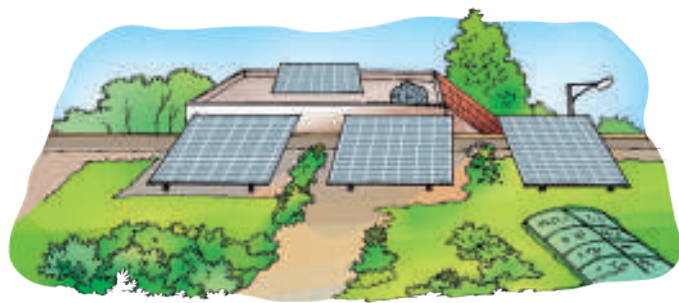
Welcome to the Village!

As they entered the village, children noticed trees full of bright orange-red flowers. Reena asked, “What are those flowers called?” Her father smiled and said, “This is a *Palash* tree. When the flowers bloom on this tree, the entire forest looks reddish-orange from a distance. So, *Palash* is called the ‘flame of forest’.”



Activity 1

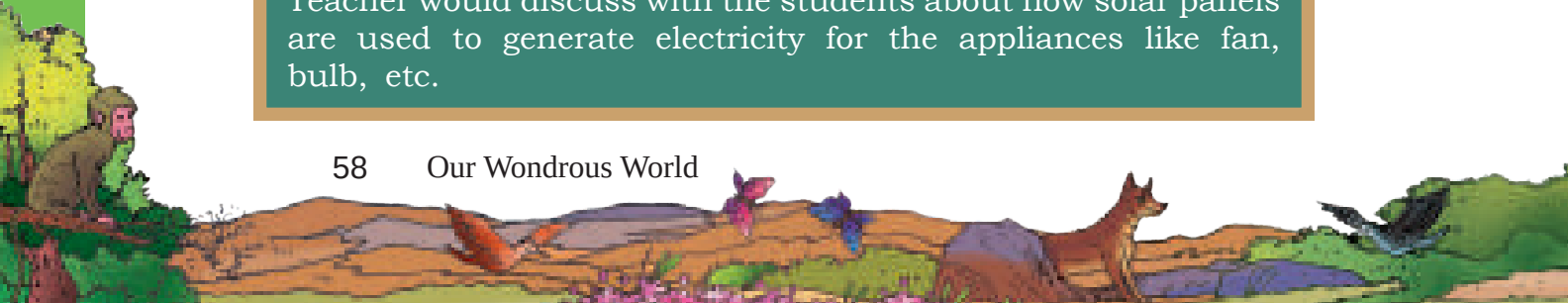
1. Write names of five colourful flowers in your area. For example, *Palash* is called *Kesuda* in Gujarat.



Name of flower	Local name	Draw and colour flower of your choice

Note to the Teacher

Teacher would discuss with the students about how solar panels are used to generate electricity for the appliances like fan, bulb, etc.





The village was decorated for the celebration.

Amit: Ahh! These houses look so different from houses in the city. The decoration on the wall is so beautiful!

Mother: Amit, these houses are made using clay, hay, cow dung, and other natural materials. Look, this painting is done by your grandmother. She has used a dye made by mixing rice flour and water.

Note to the Teacher

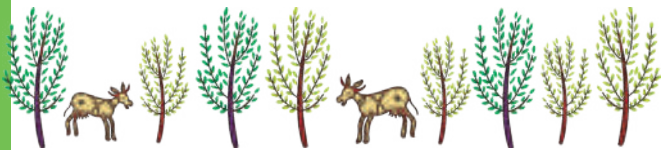
The teacher could discuss the benefits of houses made of natural materials.



Activity 2

Make the model of a house using materials from nature such as clay, wooden sticks, hay, grass, leaves, etc. Decorate it with an art form of your choice.

Reena and Amit started playing inside the house. They noticed that their grandmother was painting on a cloth. Amit asked about the paints. The grandmother told the children that the paint was made of natural extracts of flowers, leaves and with the powdered coloured stones.



Do you know?

Gond art is a form of painting on walls using natural colours. The artists make pictures of nature like trees, animals, birds and humans.



Activity 3

Let us prepare a natural dye.



Step 1. Collect some flowers, leaves, barks, and roots, such as beetroot, hibiscus, and marigold that have colouring properties.



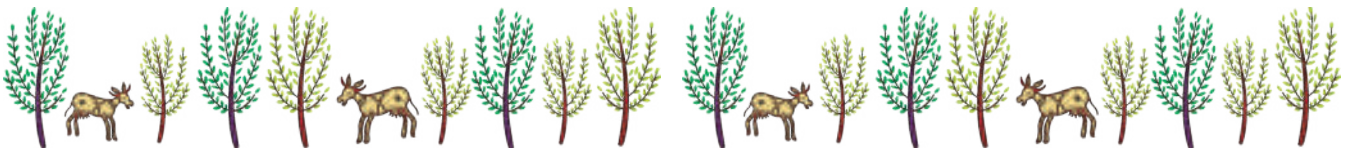
Step 2. Boil any of the collected plant parts in approximately 1–2 litres of water for 30 minutes to an hour covering the container with a plate. (Please take help from your teacher or elder known to you.)



Step 3. Strain the liquid to remove the plant materials, leaving behind the natural dye.

Now, try to paint a piece of cloth such as a light-coloured handkerchief or hand towel using the dye you have prepared. Note that you need to soak the cloth overnight, squeeze it and dry it the next morning.





The children were curious to see the tools used for farming and extracting honey. There were earthen pots and bamboo baskets, in the house, to store grains. Earthen pots were lined inside with neem leaves. The bamboo baskets were coated with cow dung on the outside. With this method, the stored grains remain protected from insects and pests.

**Note to the Teacher**

Teachers could invite artisan or artists demonstrating their skills from the local community to the school for interacting with students and for demonstration of their skill. The idea is for students to appreciate local art form.



Do you know?

The *Jenu Kurubas* is a tribe from Karnataka. Their name comes from the word '*Jenu*,' which means honey. When they collect honey from beehives, they sing songs to apologise to the bees. This shows their respect for nature.



Activity 4

Find out some traditional ways of preserving grains and vegetables at your place, and fill the following table. One example is given.

Name	Commonly used in which state	Details of the container
Tumri	Uttarakhand	Constructed with a round or oval shaped dried bottle gourd

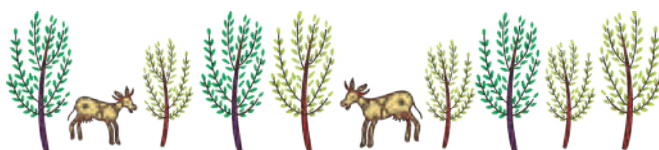
Reena and Amit got ready for the celebrations. Their grandfather took out a bottle of liquid from a box.

Dada ji: This is a mixture made with neem oil. If you rub it on your hands and feet, the mosquitoes will not bite you.

Reena: Dada ji, is it a first-aid box? I have also prepared a first-aid box. We keep some medicines and mosquito repellent cream in it, bought from the market.



Activity 5



Discuss with the elders in your family and write the name of the plant, its parts, and its uses, in the table given below.

Name of the plant	Parts of the plant	Use(s)
Indian basil (<i>Tulsi</i>)	Leaves	
Carom seeds (<i>Ajwain</i>)		



Discuss

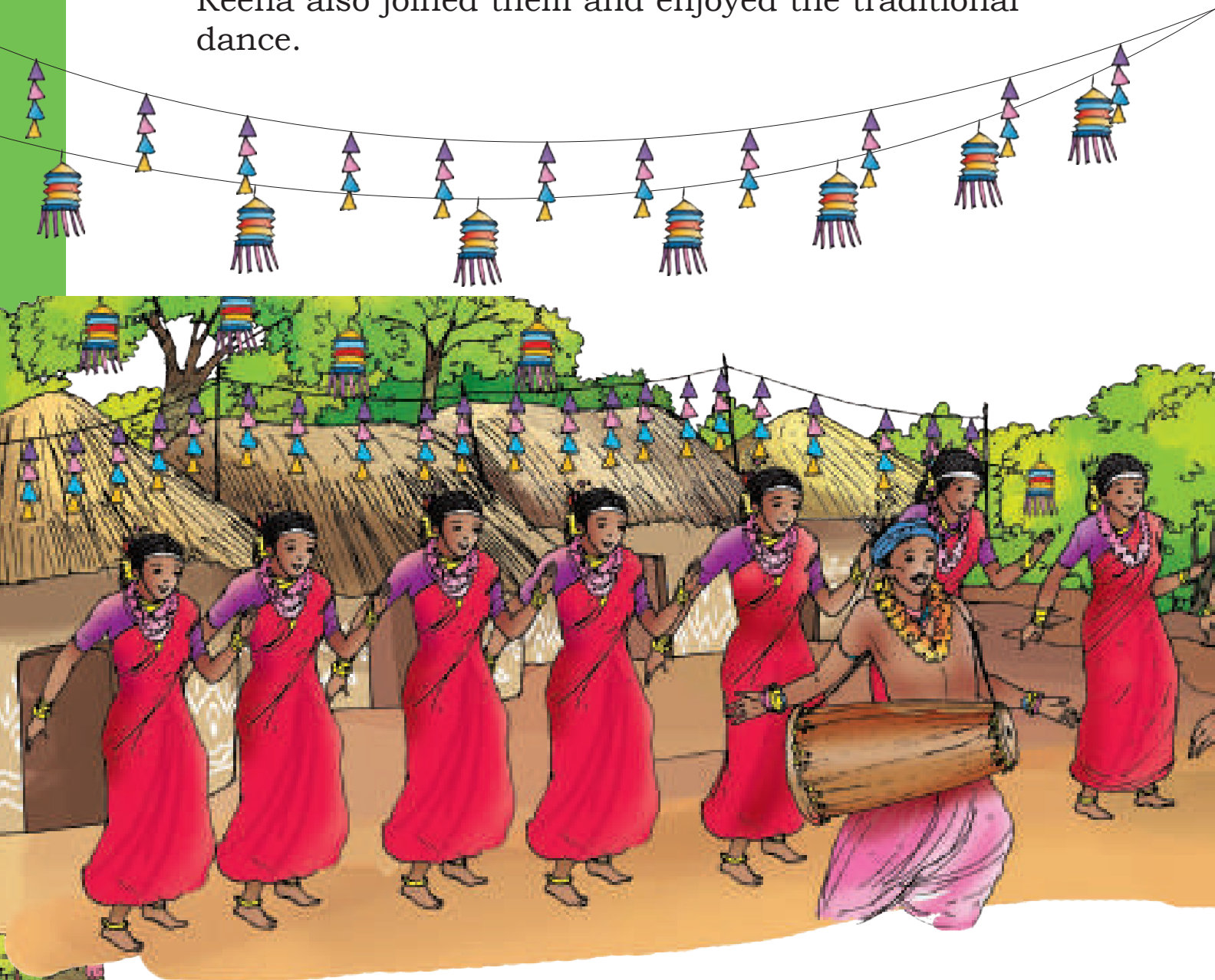
1. What things should be kept in a first-aid box?
2. Why do you think providing first-aid is important if someone gets injured?



Sparkling Light, Happy Life



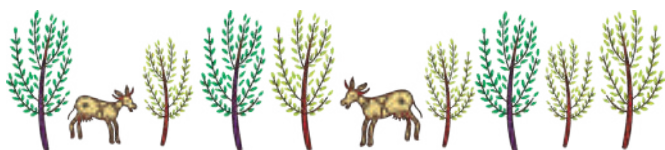
In the evening, the whole village was lit up with colourful lights. Everyone gathered in a big field. People were wearing traditional clothes, and jewels. Before the festivities started, prayers were offered to the God and mother nature. The sound of the *dhol* and *nagada* filled the air. Vibrant beats made everyone tap their feet in celebration. Amit and Reena also joined them and enjoyed the traditional dance.





Activity 6

Find out the traditional dances and songs of your region. Perform a traditional dance with the help of your classmates and teachers for the Annual Day of your school.



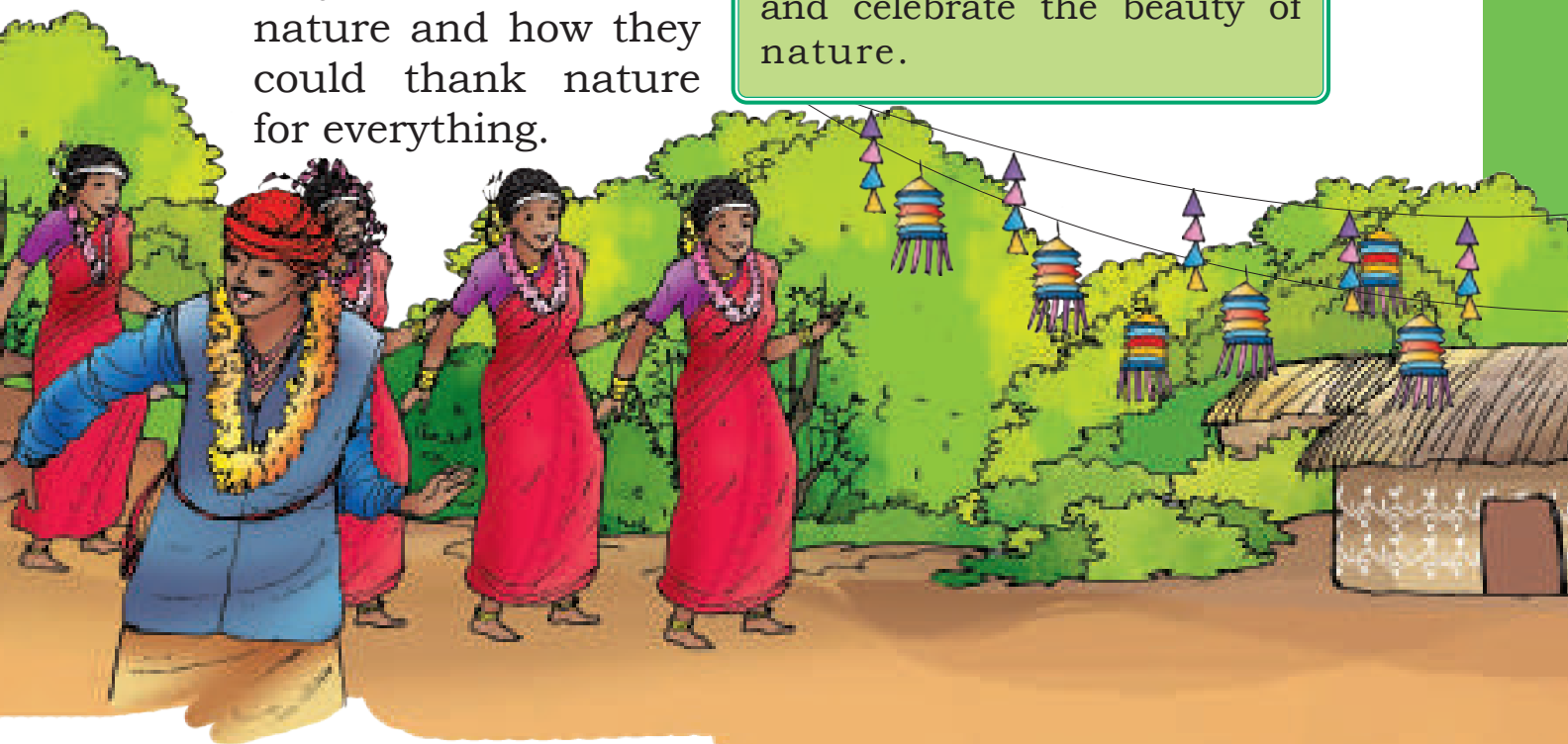
Discuss

Imagine if there is no light in your area for two days. What changes will you see in your life?

Reena and Amit were amazed at the beautiful connection the people of their village had with nature. They started thinking about what they could do for nature and how they could thank nature for everything.

Do you know?

Sacred Groves are small patches of forests, protected by local communities. The trees and wildlife within them are preserved. These are important places for the community to gather, worship, and celebrate the beauty of nature.

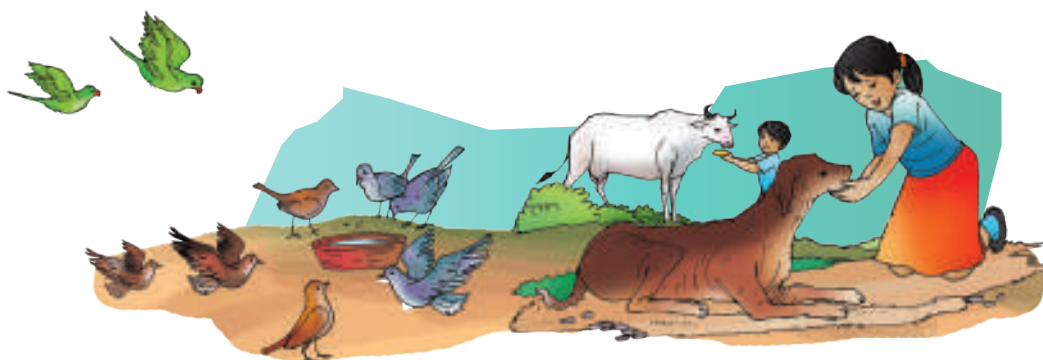


Activity 7

Talk to your elders and find out the rituals in connection to animals and plants which are celebrated in your locality. A few examples are given below.

Name of the festival	Plants/Animals associated	Activity
Vat Purnima	Banyan tree	Worshipping
Hari Jiroti	Fruit-bearing trees	Plantation
Kaziranga Elephant Festival	Elephant	Awareness drive

We worship many plants and animals in the different parts of our country. This indicates our rich tradition of respecting and protecting nature.



Here are some ways to care for plants and animals in our surroundings.

- Reduce paper waste.
- Say no to plastic.
- Spread awareness about saving plants.



Keep food and water for birds.



Plant trees.



Organise a clean-up drive.



Let us reflect

1. What are the things that we use from nature in our daily life?

Activities	Collected from nature			
Eating	Fruits			
Clothing	Cotton			
Healthcare	<i>Neem</i>			
Any other				

2. What challenges arise when we overuse natural resources?

For example, if we overuse wood from nature, our forests deplete.

Water: _____

Soil: _____

Sea products: _____

Any other: _____

3. How can we protect the natural environment around us?



At home



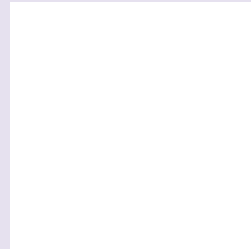
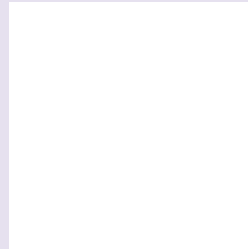
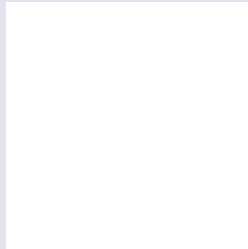
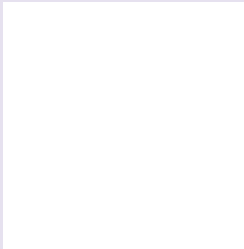
At school



In parks

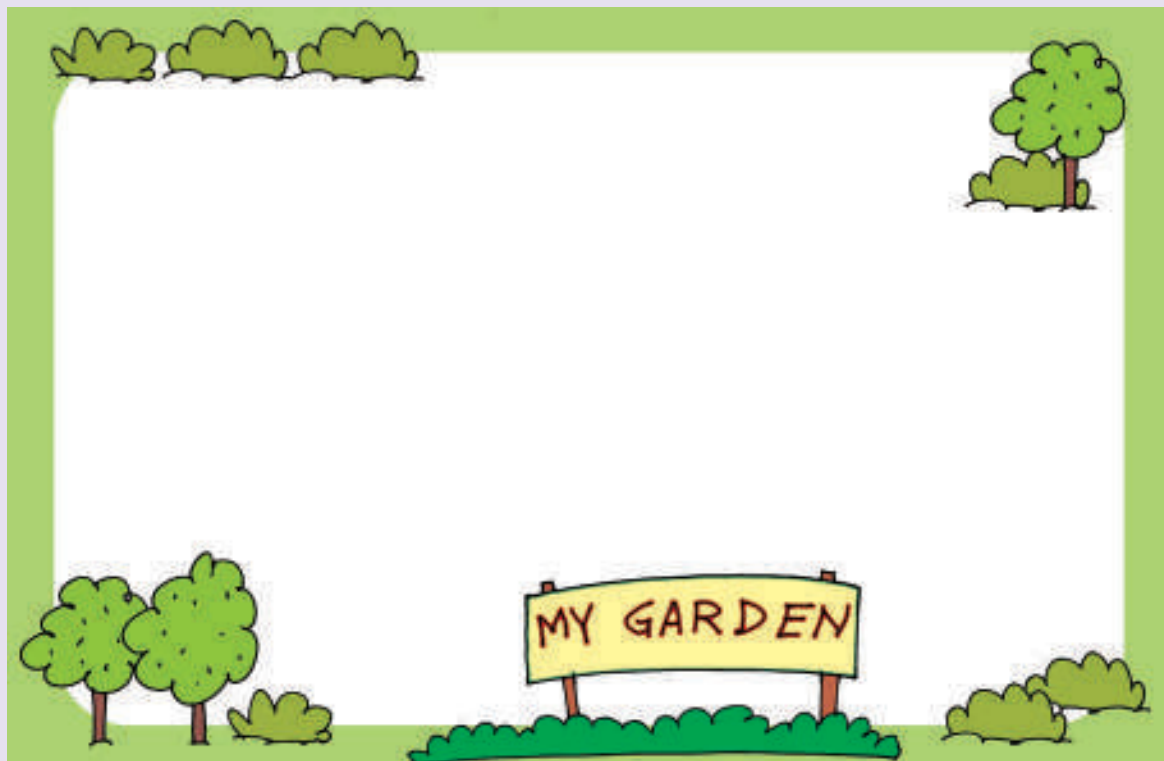


In our locality



4. **Design your herbal garden**

Here is a space for your herbal garden. Draw pictures of your favorite herbs in different parts of the garden and write down their names. Are there some herbs that you like less? Draw them too!



Health and Well-being

About the Unit

This unit discusses the important role of balanced food, exercise and rest for a healthy life.

Everybody needs to stay healthy and happy. This unit familiarises students with the different types of food which contribute to the body building, body's energy and protection from diseases. This unit also introduces the six major tastes *Shada Rasa* with examples, and guides students about balanced food and the need of adequate clean water.

This unit also focuses on mindful eating, need for daily exercises, proper

rest and gratitude for all resources. It shows the hard efforts of so many elements, people and animals associated with the production of each grain. It teaches students to care for each grain and never waste food. It also provides examples of exercises and games for proper health care, and indicates the necessity of rest for everybody. The unit also gives examples of different communities who care for their crops and respect the contribution of all concerned.



Note to the Teacher

This unit consists of Chapter 5 — Food for Health and Chapter 6 — Happy and Healthy Living. The key concepts covered in these chapters are listed below.

Chapter 5

- Through an engaging food festival in school, students will explore the diversity of food and develop an understanding about balanced food. Learners will be able to appreciate the need for including the energy rich, body-building and disease preventive food items in their diets.
- This chapter also discusses a variety of traditional food items which are used in our country and its importance in maintaining good health of all members in every family.

Chapter 6

- This chapter discusses a need for health and well-being. It depicts the journey of a grain and shows how several elements of nature, people and other animals contribute to this journey. Students will be able to learn and respect each effort, and feel thankful to everyone's contribution. It also reminds them not to waste any food.
- This chapter also guides students to do mindful eating, exercise every day, rest well, and practice gratitude to all resources. It also indicates the need for a safe environment for everyone.



Teacher to Facilitate

- Teacher will arrange age-appropriate charts, flashcards, and short videos on food groups, cooking methods, and balanced food. Students will be guided to record their observations.
- Organise a 'food mela' where students will bring home-cooked meals, display regional food *thalis*, and discuss food diversity. Facilitate hands-on tasks like food collages and mindful eating exercises.
- Organise 'mindful eating' activity for students to enable them to realise the value of food, avoid wastage of food, practice mindful eating, regular exercises and rest for body.
- Encourage children to observe food labels, cooking methods and taste textures. Assign take-home activities, such as maintaining a food diary and designing a balanced meal plate.
- Invite a nutritionist or a local farmer to discuss healthy eating and food sources. Also organise a visit to a community kitchen or a local farm to explore the food production and storage.



0435CH05

5 Food for Health



The day of the food festival has finally arrived! Students and their parents brought a variety of food items for the festival.



The stalls displayed fresh fruits, vegetables, sprouts, *dhokla*, *litti-chowkha*, *dal-baati-churma*, *bajre-ki-khichdi*, *chhena-poda*, *kadhi-pakoda*, *ker-sangri*, *siddu*, roasted corn, spicy *chutney*, hot *dosa*, crispy *vada*, *jowar upma*, *ragi laddu*, *Chila*, *Fara*, *Thethri*, *Khurmi* and much more.





Think and Write



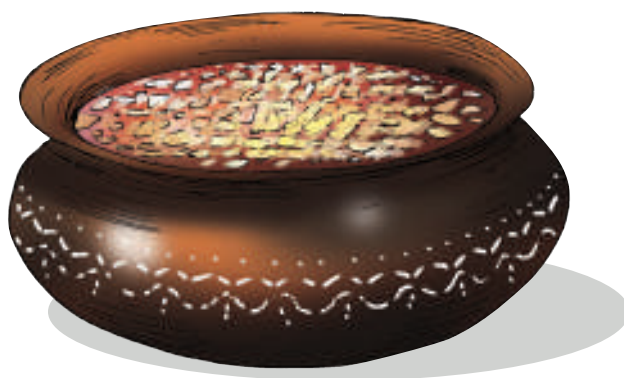
If you had to organise a food festival in your school, which dishes would you like to include? Make a list.

Children were eager to taste different food items. They visited the stalls one by one.

Mystery Masala

Mukesh and his friends lined up at a colourful stall named 'Mystery Masala' to try a unique food made by their classmates. This food had a hint of sweetness, it was also a little salty, and a bit bitter too. The guessing game about its ingredients filled the stall with laughter and curiosity.

Curiously, they asked, "Why does it taste so different to each of us?" The children of the stall smiled and explained, "This is *Ugadi Pachadi*, a traditional food of Andhra Pradesh, Karnataka and Telengana, made with six different taste elements—sweet (*meetha*), sour (*khatta*), salty (*namkeen*), pungent (*teekha*), bitter (*karva*), and astringent (*kasaila*). Each taste makes it special! When all these tastes are blended in the right measure, it is more enjoyable."





Write

Can you think of at least five ingredients or food items that match each of the tastes listed below? Write them down in the spaces provided. See the example given below:

Taste	Sweet	Sour	Salty	Pungent	Bitter	Astringent
Ingredients	Jaggery	Tamarind	Salt	Green chilli	Neem	Raw mango



Discuss

Discuss in small groups and identify the food items having at least three different tastes.

Do you know?

The six tastes such as sweet, sour, salty, pungent, bitter and astringent are known as '*shad rasa*' in Ayurveda. Ayurveda suggests that eating balanced food containing *shad rasa* is good for health.

A Stall of 'Super Food'

Surbhi and her friends decided to visit a stall of millet foods. Looking at the menu, Surbhi recalled that her grandmother used to eat *jowar* and *bajra roti* in winters and *jau roti* during summers. Millets are rich sources of nutrients. Children were happy to order *jowar upma* and eat healthy millet based food items.



Super Food



Find out

Find out more about a millet-based food prepared at your home.

How Does Food Help Us?

Children were attracted towards a banner which said—“Colours on Plate, Wellness in Life”.



Discuss

Why do we need to eat different kinds of food items?





Our body requires a variety of food items to stay healthy, energetic, and strong. Food is required for balanced growth of our body. Since no single food contains all the nutrients our bodies need, it is important to eat a variety of foods.

Food Groups





Foods like rice, potato, wheat, maize, banana, apple, sweet potato, honey, millets, etc., are rich in energy. Butter, ghee, oil, etc., also provide energy to our body.



Foods such as pulses, legumes, soybeans, chickpeas, peanuts, tofu, milk, cheese, beans, almonds, walnuts, eggs, meat, fish, etc., help us grow, build our muscles, and make us strong. They are known as body-building foods.



Similarly, fruits and vegetables like carrot, orange, lemon, papaya, spinach, cabbage, guava, amla, tomato, etc., help us to fight against and protect us from diseases. That is why these foods are termed as protective foods.



Discuss

What happens if we eat food from a single group of foods everyday.



Say 'No' to Junk Food

There are some foods that are not healthy if we consume them regularly and in large quantities. They contain high amounts of oil, salt, sugar, etc. These are known as 'junk food'. A few examples of junk food are soft drinks, chips, bread *pakoda*, burgers, pizza, and over-processed, packaged food. Fresh home-cooked food is better than over-processed or packaged food.



Write

1. Can you name a few more junk food items?

2. Why do you think we should avoid eating junk food?

3. List the junk food items that you will avoid.



Activity 1



Make a Food Diary

1. Create a food diary of your daily routine for a week. Write down what you eat in a day for breakfast, lunch and dinner. An example is given. Expand the table for a week.
2. Encircle the food items that are healthy and put an 'X' mark for items which are not healthy.
3. Identify the food groups missing in your daily routine. Discuss with your parents how these items can be included in the daily routine.



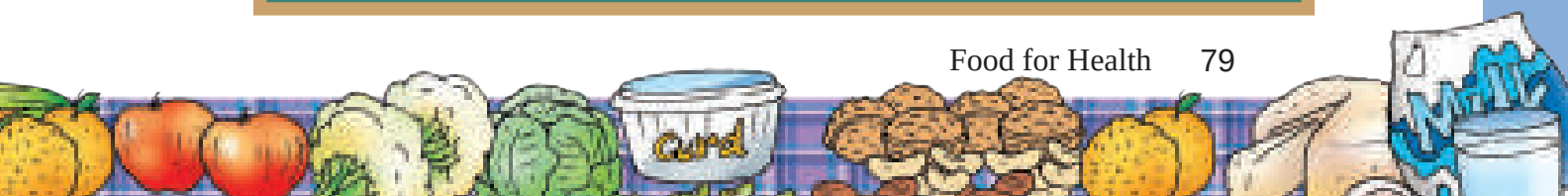
Days	Time	Food eaten
Day 1	Breakfast	<i>Idli, Sambhar, Chutney</i>
	Lunch	
	Dinner	
Day 2	Breakfast	
	Lunch	
	Dinner	

A Balanced Food Plate

A balanced plate includes food in the right quantities from all three food groups—protective foods (fruits and vegetables) the most, followed by body-building foods and some energy-providing foods. This helps us keep healthy, active, and happy!

Note to the Teacher

Encourage students to eat all types of healthy food.





In India, every region has a special *thali* which includes different types of food items with a variety of tastes and health benefits. Atul and his friends were excited to taste the food items of *thali*!

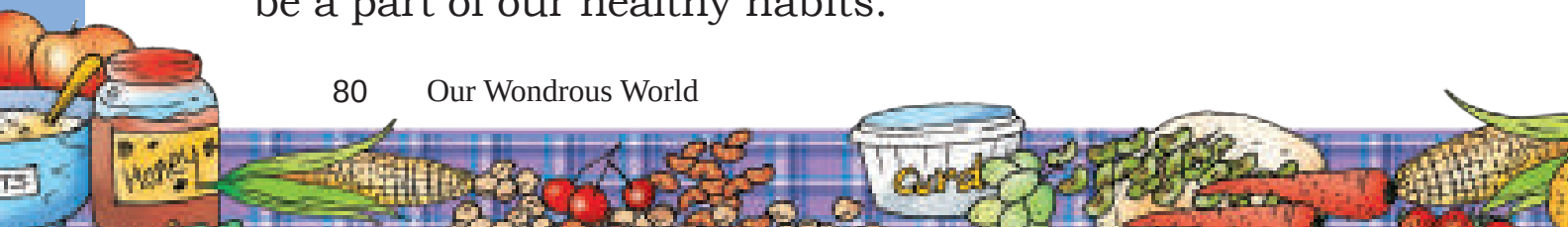


Find out

Find out a 'food *thali*' from your region, and list its food items.

Water for Health

Water is also an important part of our diet. Water helps in digesting food, and in keeping our skin and body healthy. Water helps in removing waste from our body through urine, sweat, and faeces. Additionally, eating water-rich fruits like watermelon and cucumber can also help maintain water in our body. Drinking sufficient water should be a part of our healthy habits.



Different Methods of Cooking

Surbhi and her friends enjoyed eating different food items at the food festival. They wondered how these were prepared.



Write

Identify different methods used to cook the food items given in the list below. One example is given for you. You can take help from your family members and add more items to the list.

Idli
kheer

dosa
samosa

rice
peda

sambhar
gulab jamun

papad

Methods of cooking	Food
Steaming	<i>Idiyappam</i>



Boiling



Steaming



Frying



Roasting



Grilling



Baking



There are also some food items such as fruit *chaat*, vegetable salads, etc., that can be eaten without cooking.



Do you know?

A chef is a professional cook who is skilled in all aspects of food preparation. The term 'Chef' in French means a director or head of the kitchen.

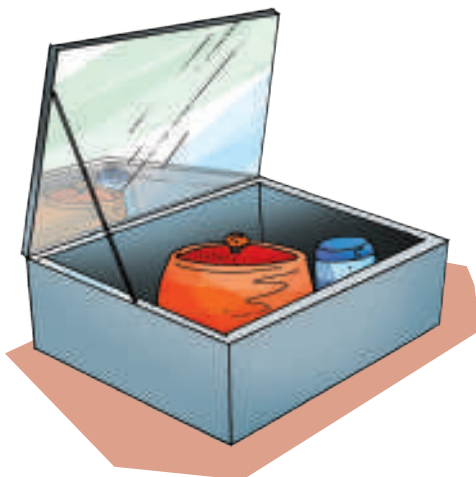


Discuss



1. Do you help in cooking at home?

2. Do you think all family members should know how to cook? Why?



Do you know?

We can cook food in a solar cooker by using sunlight instead of using fire from a gas stove, or heat produced by electricity. It does not pollute the environment by producing any smoke or ash.





Let us reflect

1. Hands-on activity—food collage

Materials: Old magazines, newspapers, scissors, glue, and a blank sheet of paper.

Cut out pictures of food items and create a collage with three sections: energy-giving foods, body-building foods, and protective foods.



2. Check the label

- (a) At home, pick up any one packaged food item from your kitchen. Check the label and note down the expiry date, and also two main ingredients.
- (b) Why is it important to check labels before buying or eating packaged food items?



3. **Organise a food festival**

Students may bring home-made food and organise a food festival at school. Parents may be encouraged to participate in the food festival.

4. **Find and circle**

Circle the words related to food in the grid below. One example is given below.

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





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6 Happy and Healthy Living



All of us feel happy at different times and for different reasons. When do you feel happy? Write your answers in the bubbles given below.

When do I feel happy?

When I play games.



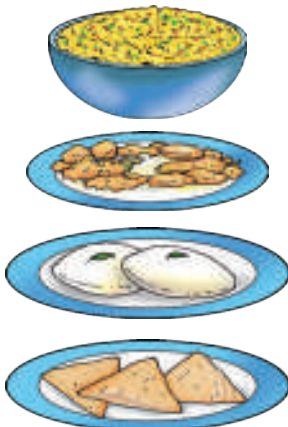
When I eat my favourite food.

We feel happy on various occasions, such as when we are eating our favourite foods. We enjoy eating food items made from different grains, pulses, vegetables, etc.

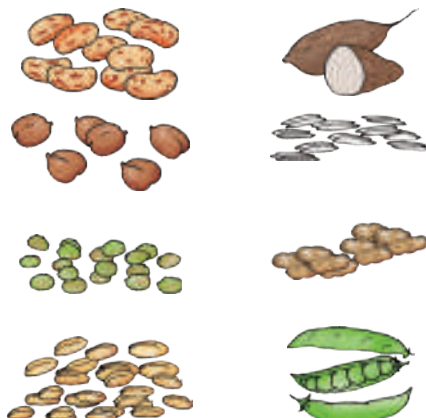


Activity 1

Connect the food items shown below with the grains used to make them.



Food items



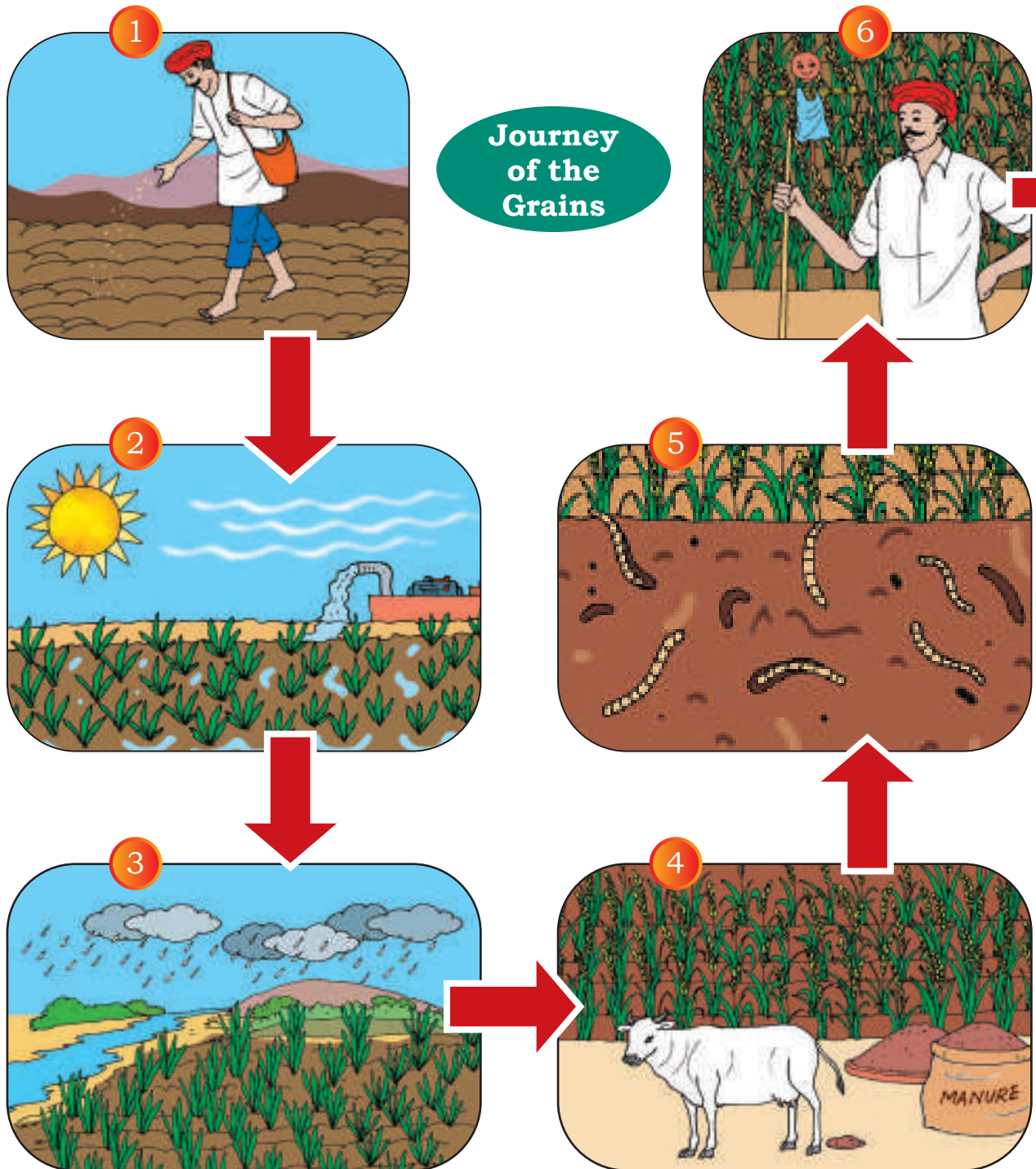
Grains

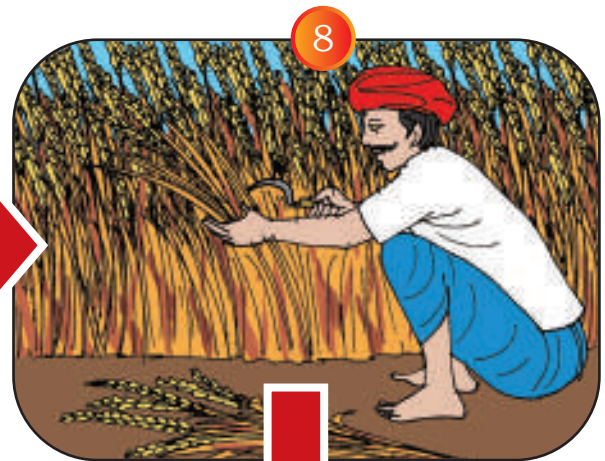


Food items

Journey of the Grains

It is interesting to know how each food item reaches us. Let us look at the journey of a rice or wheat grain which forms a part of our diet. The following pictures show this journey.





The journey of the grain from the farm to our plate is long. The efforts of people (farmers, sellers, etc.) and animals make this journey possible for us. Water, soil, and sunlight also play an important role in this process.



Activity 2

Observe the pictures and answer the following questions.

- Put a tick (✓) on the elements that assist a grain in its journey.

Soil	Stone	Air	Wood	Water	Tiger
✓					
Farmer	Earthworm	Hills	Fire	Insect	Bat

Write

- What is the role of farmers in this process?
- List out the missing elements in the table above.

From the time a seed is sown, to the point when food reaches our plate, it is a remarkable journey. Can you list the roles of the different elements involved in this journey?

(a) Soil: _____

(b) Water: _____

Note to the Teacher

Encourage a discussion in the class to help children appreciate the entire process and the hard work involved in producing food.

(c) Farmer: _____

(d) Cattle: _____

(e) Shopkeeper: _____

(f) Family members: _____

(g) Any other: _____

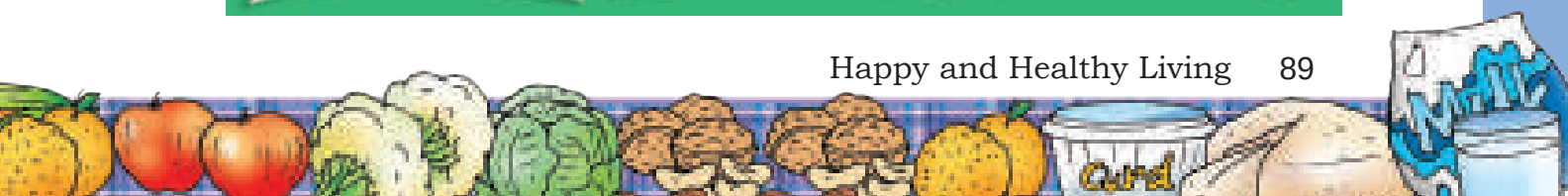


Activity 3

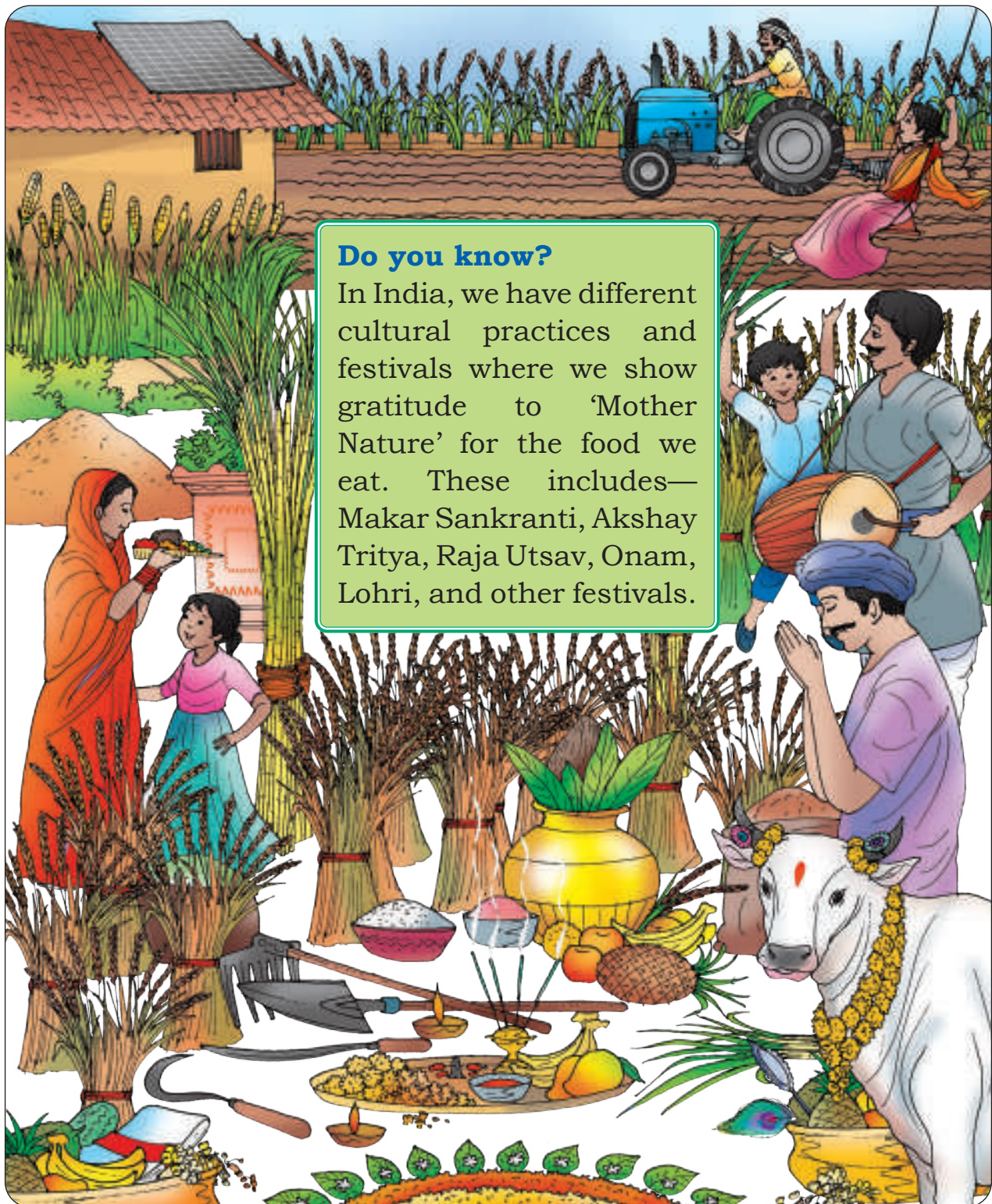
Thank You Everyone!

Whom would you like to thank for the food you eat? Please write your answers in the following space.

 Thank you _____	 <i>Thank you</i> _____	 Thank you _____
 <i>Thank you</i> _____		 <i>Thank you</i> _____
 Thank you _____	 <i>Thank you</i> _____	 Thank you _____



When we remember all the contributors with love and gratitude, we feel the importance of each grain, and we enjoy the taste.



Do you know?

In India, we have different cultural practices and festivals where we show gratitude to 'Mother Nature' for the food we eat. These includes—Makar Sankranti, Akshay Tritiya, Raja Utsav, Onam, Lohri, and other festivals.

Mindful Eating

One day, the teacher asked her students to sit in a circle. She asked them to close their eyes. Thereafter, she placed one peanut each on their palms. Every student felt the object on their palm. A few students immediately recognised the seed and knew it was peanut.



With their eyes still closed, the students attentively followed the teacher's instructions:

- (a) Put the food item in your mouth slowly.
- (b) Use your tongue and mouth to feel the surface of the food.
- (c) Gently, chew it with your teeth.
- (d) Feel the flavour and taste, using your tongue, nose and other senses.
- (e) Remember the taste as you continue to chew.
- (f) Before swallowing, remember the texture of the food.



Discuss

1. What role does your tongue play in this process?
2. What do your teeth do to the food?
3. What happens to the food inside your mouth during this process?

Mindful eating is about paying attention to what we eat and how we feel while eating. When we eat slowly and focus on each bite, we can enjoy our food better. It helps us make healthier choices and appreciate the food we have. So, the next time you eat, try focusing on what you eat, chewing your food well, and enjoying every bite fully.

Note to the Teacher

Teacher can conduct mindful eating exercises in the classroom using peanuts or locally available foods, enabling students to experience and enjoy the process of eating mindfully.





Valuing Food

Every grain is precious. Do you eat every grain of food served on your plate? When we waste food, we fail to respect the hard efforts of everyone who helped bring food to our plate.



Activity 4

For a week, keep a record of the food you eat for breakfast, lunch and dinner.

After every meal, make an entry in the following table. If you ate everything, write 'Yes' and add a happy smiley 😊. If you left some food, write 'No' and add a sad face ☹️.

Day	Breakfast	Lunch	Dinner	Did you eat fully?	Did you waste?	How do you feel?
1.						
2.						
3.						
4.						
5.						
6.						
7.						



Write

What will you do—

1. If someone offers you food more than you need?

2. If you do not like a food item on your plate?





Write

Enjoy Sports

Look at the picture below.



Identify the activities people are engaged in.





Discuss

1. Which physical activities do you do in your daily life?
2. How do you feel on a day when you play a lot?



Find out

Can you name the games depicted in the pictures below?



Activity 5

With your teacher's guidance, practice the easy yoga poses given below for a week, and record your observations.



Along with good food, we also need to exercise regularly to stay healthy. Regular physical activities like playing in open fields with friends, running, jumping, cycling, and skipping are necessary to keep us strong and energetic. Similarly, other physical activities, like yoga improve our posture, and keep us happy and active.

‘Khel Yoga’, the textbook on ‘Physical Education and Well-being’ provides many interesting exercises and games.



Sleep Well too!



Think about a day when you exercised or played a lot. What do you think would happen if you did not sleep well after that?



Activity 6

Fill the table given below.

Day	When did you sleep?	When did you get up?	Duration of sleep	How you felt during the day? (a, b, c)
Yesterday				
Day before yesterday				
Prior to it				

a: Felt fresh; b: Lazy; c: Sleepy



Discuss

1. Why do you think our body needs rest?
2. Do you think it is important to rest after a busy day of exercise and play? Why?

Our body requires sufficient sleep every day. A good sleep takes away our tiredness and makes us feel fresh. When we do not get enough sleep, it becomes difficult for us to focus on work or play. We feel tired, sleepy and irritable. Therefore, getting enough sleep is just as important as eating healthy and exercising.



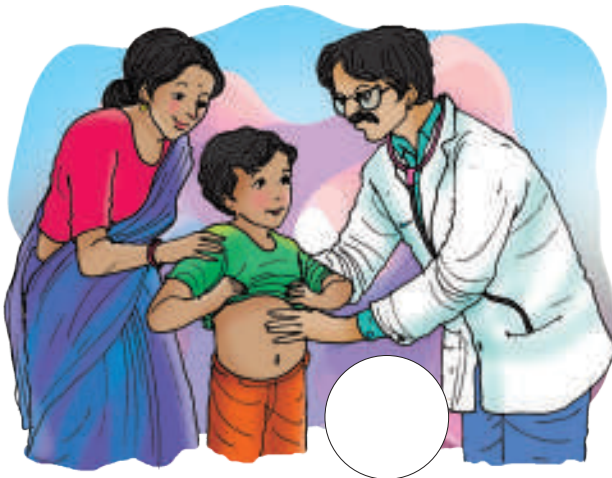


Feeling Safe

We have already discussed different ways for staying healthy and happy. However, there may be times when someone feels unhappy, unsafe or uncomfortable.

Activity 7

Look at the pictures of different situations given below. Put a tick (✓) for the situation where the child would feel comfortable and put a cross (✗) for the situation where the child would feel uncomfortable.



It is important to know the difference between safe touch and unsafe touch. A safe touch is like a comforting hug from your mother or another family member, that makes you feel happy and comfortable. An unsafe touch is one that makes you feel uneasy, scared, confused or uncomfortable— whether it is from someone you know or a stranger.



Write

1. What would you do if someone's touch made you feel uncomfortable?

2. If you face an unsafe situation, who would you tell?

3. List two situations where you would firmly say 'No'.

If you ever feel unsafe, speak up! Remember, if anyone ever makes you feel uncomfortable, it is okay to say 'No' and tell a trusted adult, like your teacher or your parents. You do not have to feel uncomfortable or guilty.



For happy and healthy living, eating right, at the right time, in the right way is necessary. At the same time, engaging in physical activities, resting and relaxing are equally important. If we take care of our body and mind, we can stay happy, healthy, and joyful.





Let us reflect

1. If the following are missing, what would happen to a foodgrain?

Elements

Soil _____

Water _____

Sunlight _____

Animals

Cattle _____

Earthworm _____

People

Farmer _____

Shopkeeper _____

Cook _____

2. Design your own favourite plate of balanced diet with the food items you like. (Remember we should not waste food.)

Breakfast plate	Lunch plate	Dinner plate



3. Which activities did you enjoy during your 'mindful eating'?

4. How can you keep your body strong? Write down the names of the exercises and games you would practice.

Exercises: _____

Games: _____

5. Which habits would you practice daily? Indicate your plans.

Activity	Your plan
Wake up early	
Yoga and exercises	
Eat a balanced diet on time	
Exercise and play	
Less use of TV and mobile	
Read a book	
Sleep peacefully	



Things Around Us

About the Unit

This unit familiarises students with various things around them, how different things work and also how those things are made.

Students observe and test how things work by engaging with easily available toys, such as spinners and paper boats. They try out different possibilities with these toys and study how things work. They also test out which things sink or float by putting different things in the water.

Other than how things work, students will also learn about how different things are made. They will also learn how to prepare handmade

paper and gradually learn how papers are made in large scale through machines. This unit gives them a chance to understand the properties of paper and the making of coloured papers too. In the process, students will learn sustainable practices through 5Rs of waste management and get ready to take responsible decisions. By experimenting with both traditional and modern paper-making techniques, they will develop a deeper appreciation for the materials we use in everyday life and their connection to our environment.



Note to the Teacher

This unit consists of Chapter 7—How Things Work and Chapter 8—How Things are Made. The key concepts covered in these chapters are listed below.

Chapter 7

- ‘How Things Work’ nurtures student’s natural curiosity to try out and observe common phenomena around them, including spinning, floating and sinking. Through hands-on activities with toys, papers and other materials used in day-to-day life, they will discover the patterns, and develop a sense of wonder about how things work.
- The simple experiments will enable students to observe what happens and how things work in different situations. In this process, they will discover various common patterns which gives them new learning about the materials. These new discoveries will raise their interest and curiosity in things further, and it also encourages them to know how things work.

Chapter 8

- ‘How Things are Made’ provides space to students to make something with their own hands, using locally available material. They will learn how to prepare paper pulp and make handmade paper out of this. They will also learn how paper is made.
- By making recycled paper, they will discover the beauty of sustainability and innovation. They will also learn the 5Rs of waste management which are essential in today’s world.



Teacher to Facilitate

- Arrange objects, such as coins, bangles, wooden spinners, leaves, and stones for activities including spinning, floating and sinking. Keep cardboard, toothpicks and adhesive ready for students to undertake these hands-on activities.
- Organise group activities like making and testing spinners, predicting and observing floating and sinking objects, and designing boats with different materials. Encourage students to record these observations.
- Arrange needed materials for the floating and sinking activities. Encourage students to note predictions and results. Guide them to think critically about different shape and materials, etc.
- Organise an exhibition where students will be able to display their handmade boats and share their findings.





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7

How Things Work



Every day, we see and use different things around us, like the books we read and the toys we play with. Some of these things help us work. We use a pencil for writing, a bag to carry books, and so on.

Have you ever wondered how these things work? Do they always work the same way in all situations? What changes might be needed to make them work even better? Let us explore and find out how different things around us work.

Meera and Dhruv love exploring how things work. Every weekend, they discover something new to explore. That Sunday was no different. Meera spun a coin and observed curiously. “Watch this!”, she said.



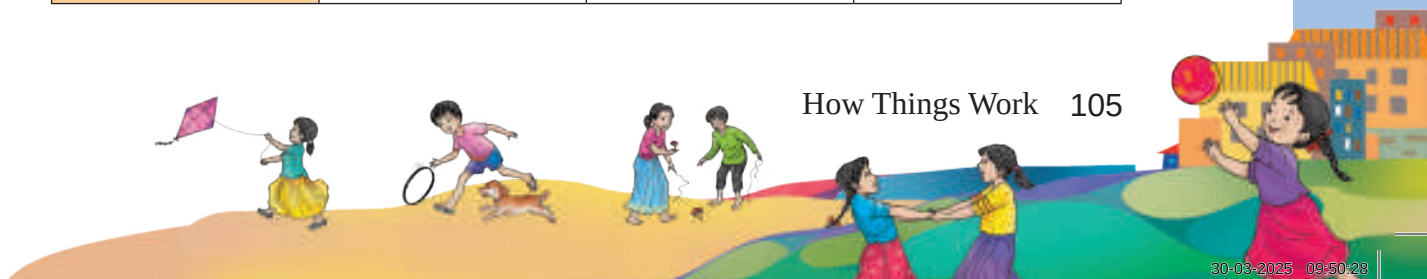
Note to the Teacher

Ask the students to spin a coin and observe.

Activity 1

1. Do you think all objects can spin? Make a list of a few objects that can spin.
2. Collect the objects mentioned in the table given below. Spin and observe them. Then, complete the table.

Objects	I observe	I wonder	I think
Coin 	As it slows down, it begins to shake	Why does it start to shake as it slows down?	
Bangle 	As time passes, the sound...		
Pencil 			
Piece of Stone 			
Wooden Spinner (Top) 			
Eraser 			

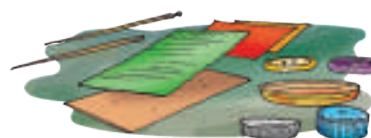


Some objects like coins and bangles spin, while some other objects like erasers do not spin properly. Meera had a question, “How does a top spin?” Let us make some spinners and explore.



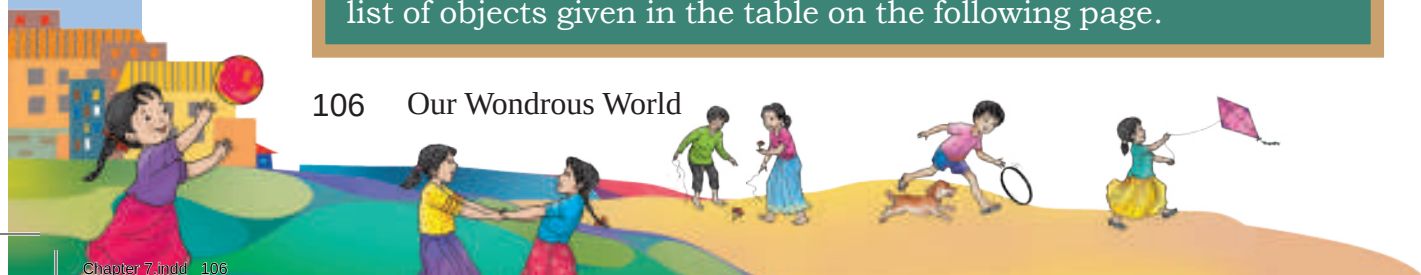
Activity 2

Collect things, such as pieces of cardboard, toothpicks, an empty tube of a ballpoint pen, and other small objects. Make the following spinners. Spin them and record your observations.

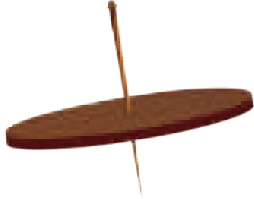
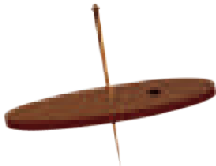


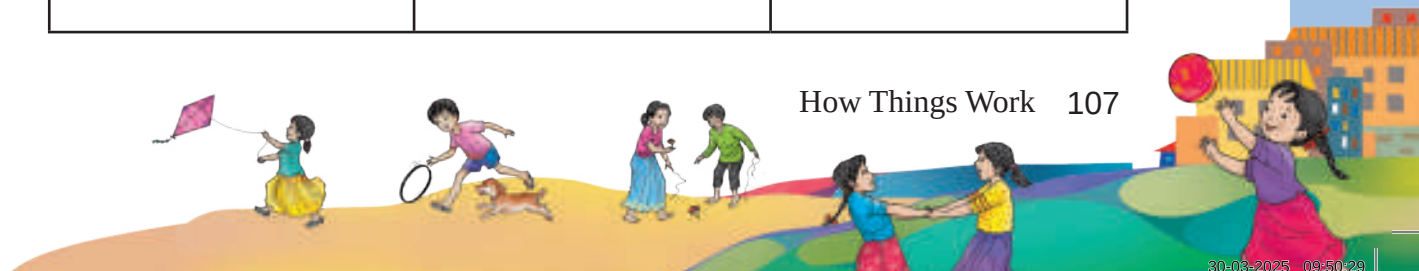
Note to the Teacher

It is not expected that students come to correct theoretical explanations for questions like “How does a spinner work?”, “How does it balance?”, “Why does a spinner begin to shake?”. The main idea is to give them the opportunity to think and explore playing with spinners, to allow them to give possible explanations. Encourage students to collect and spin objects in addition to the list of objects given in the table on the following page.



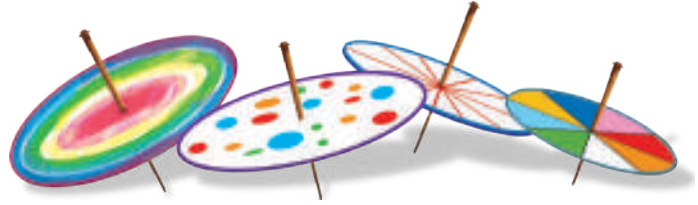


Change in the spinner	What do you observe? (spins/ does not spin)	Any other observations
Toothpick at the centre 		
Toothpick away from the centre 		
A square spinner 		
Circular spinner with a circular mark on its body 		
Any other		





DISCUSS

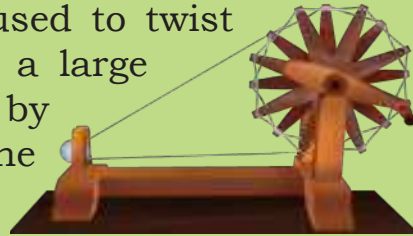


1. Which of the spinners did not spin properly? Discuss the possible reasons.
2. Have you noticed the position of the hole in the first two spinners? Did this difference in the position of the hole make a difference in the spinning of these spinners?

In the table of Activity 2, the first spinner with a hole at the centre appears to be the same from all sides. This spinner remains upright and spins but that is not the case with the second spinner.

Do you know?

A *charkha* (spinning wheel) is used to twist cotton fibre into thread. It has a large wheel that spins when turned by hand. Mahatma Gandhi used the *charkha* to make handmade clothes.

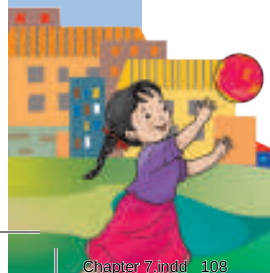


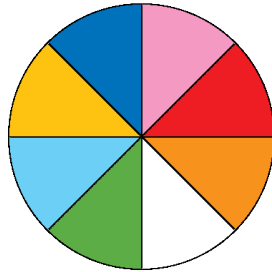
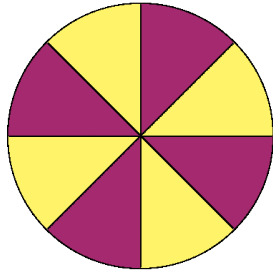
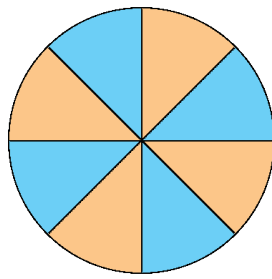
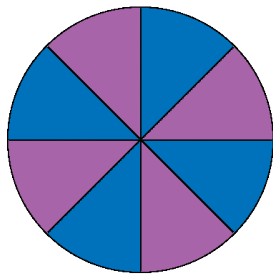
When the third spinner, a square card, is spun, it appears circular while spinning. What other shapes can you try? Make spinners using different shapes of card pieces, spin them, and observe what happens.



Note to the Teacher

Some spinners might also not have worked. Encourage students to change different factors such as the length of the toothpick at the bottom of the cardboard, the alignment of the cardboard and other possible changes. This will help them identify what makes the spinner spin better.





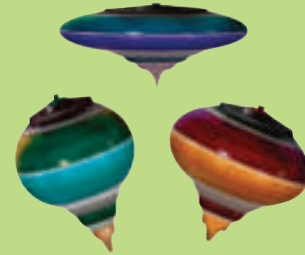
What other changes can you make in your spinner? Can you colour it? How many different ways can you colour it? Some ways are shown in the figure. Colour the spinners in different ways,

spin them and observe what happens. What happens to the colours on the spinner when it is painted with different colours and then spun?

Many things around us spin, such as ceiling fans and potter's wheels. What other things have you observed spinning?

Do you know?

Spinning tops have been used in India for thousands of years. Clay was used in earlier times to make these tops. *Lattu* is one of the popular Indian tops which is commonly made of wood.



Floating and Sinking

It started raining outside. Meera and Dhruv ran out of the house and started splashing water on each other. Rain stopped after some time.

Dhruv : Let us make paper boats. It would be fun!

Meera : Let me bring some old newspapers.



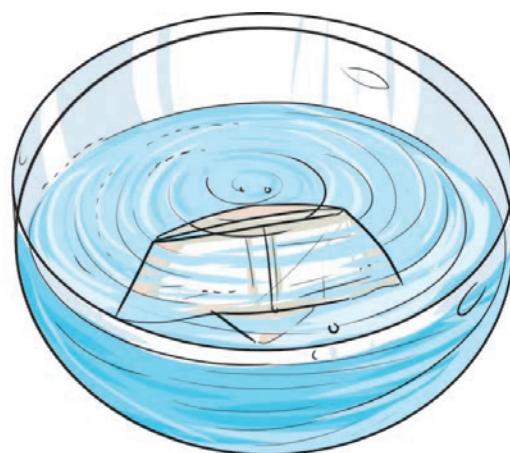
They made paper boats and then placed them in the water puddle formed by the rain. While playing, they noticed that some paper boats floated properly on the water, while others flipped.

You can try this out at home. Make a paper boat and float it in a bowl. Observe whether your boat floats properly like in Picture 1 or flips like in Picture 2?

Let us explore floating and sinking activities with Meera and Dhruv.



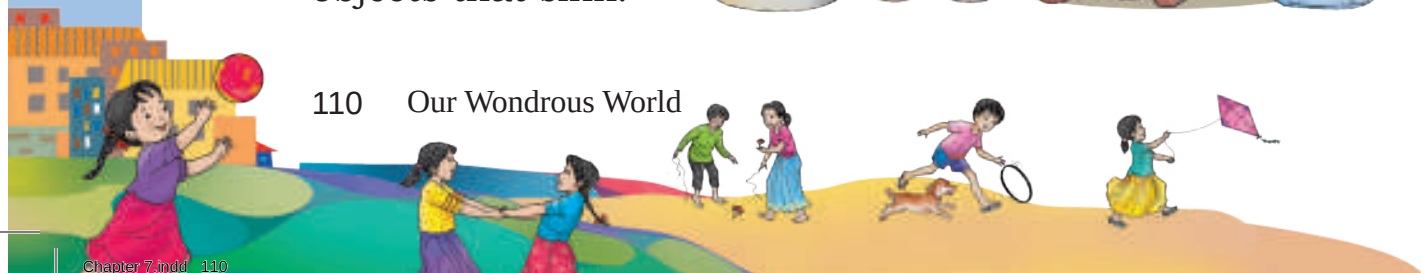
Picture 1



Picture 2

Activity 3

Collect objects, such as a leaf, an iron nail, an empty bowl (*katori*), a plastic bottle with a lid, pieces of stone, aluminium foil and other things of your choice. Fill a bucket with water. Before dropping the things listed in the table, guess whether things will float or sink. You may try other things too. Then, observe what happens when it is actually dropped in water. You can write 'F' for objects that float and 'S' for objects that sink.



Items	Before dropping		After dropping	
	What is your guess?	Why do you think so?	What is your observation?	What could be the reason?
Leaf	F	It is light	F	It is light
Iron nail or pin				
Empty steel bowl				
A piece of stone				
Empty bottle with a closed lid				
Bottle full of water with a closed lid				

From this activity, it can be observed that some heavy objects like iron nails sink, while lighter ones like leaves, float.



DISCUSS

Did all the light objects float and all the heavy objects sink? Name the heavy objects that floated and lighter objects that sank.

Floating or sinking of an object cannot be decided based just on whether it is heavy or light. It also depends on other factors.



Activity 4

Let us find out whether shape plays a role in floating and sinking.

Aluminium foil when—	Do they float (F) or sink (S) in water?			
	Before dropping		After dropping	
	What is your guess?	Why do you think so?	What is your observation?	What could be the reason?
spread out				
pressed tightly into a ball				
in a cup-like shape				



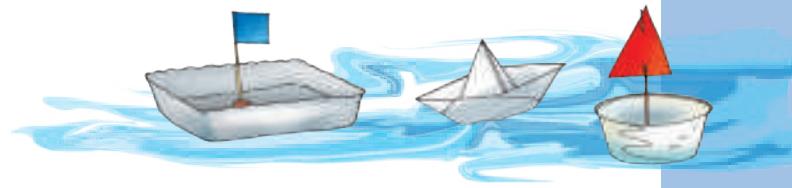
By changing the shape, we can make an object float or sink. When aluminium foil was spread out or made in the shape of a cup, it floated. However, when it was made into a ball, it sank.

Note to the Teacher

You need to help students in pressing the aluminium foil ball tightly so that it traps as little air as possible. If the ball is not pressed tightly, it might even float. If aluminium foil is not available, use any other alternative.



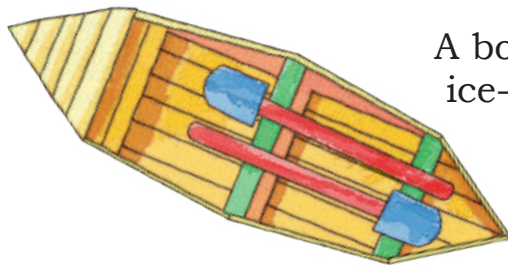
Activity 5



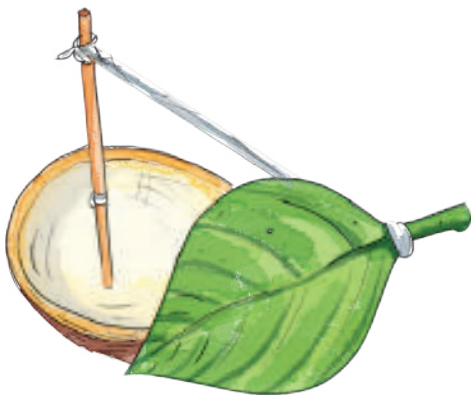
1. Let us create some boats:

- Collect some paper, cardboard boxes, ice-cream sticks, clay, adhesive tape, etc.
- Create groups of three to four students.
- Think of how you can make a boat using some of the materials that you have.
- Draw a picture.
- Prepare a boat. Try to ensure that your boat is different from boats made by other groups.
- Organise an exhibition of boats in the class.

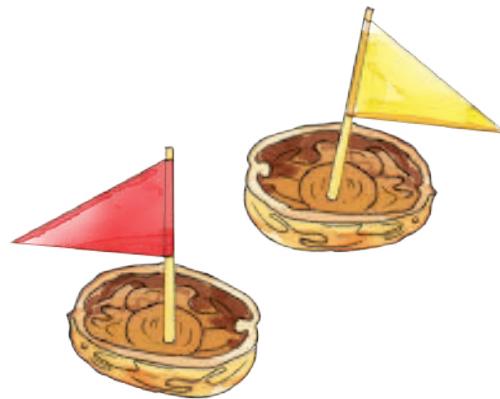
Following are some different types of boats which can be made.



A boat made with ice-cream sticks



A boat made of a coconut shell



Boats made using walnut shells

2. Compare your boat with others' boats.

Strengths of your boat	Challenges of your boat

Some boats might be strong and difficult to break, while others might break easily. Some might tip over easily, while others might keep better balance. Think about how you can improve your boat.



Note to the Teacher

Bring the materials for making boats as mentioned. Provide some additional materials required such as bands, threads, adhesive tapes, glue, scissors, etc. Make sure that it is enough for all the groups. Supervise the groups, encourage students to try out different materials and come up with different designs. Suggest alternatives if some materials are not available.





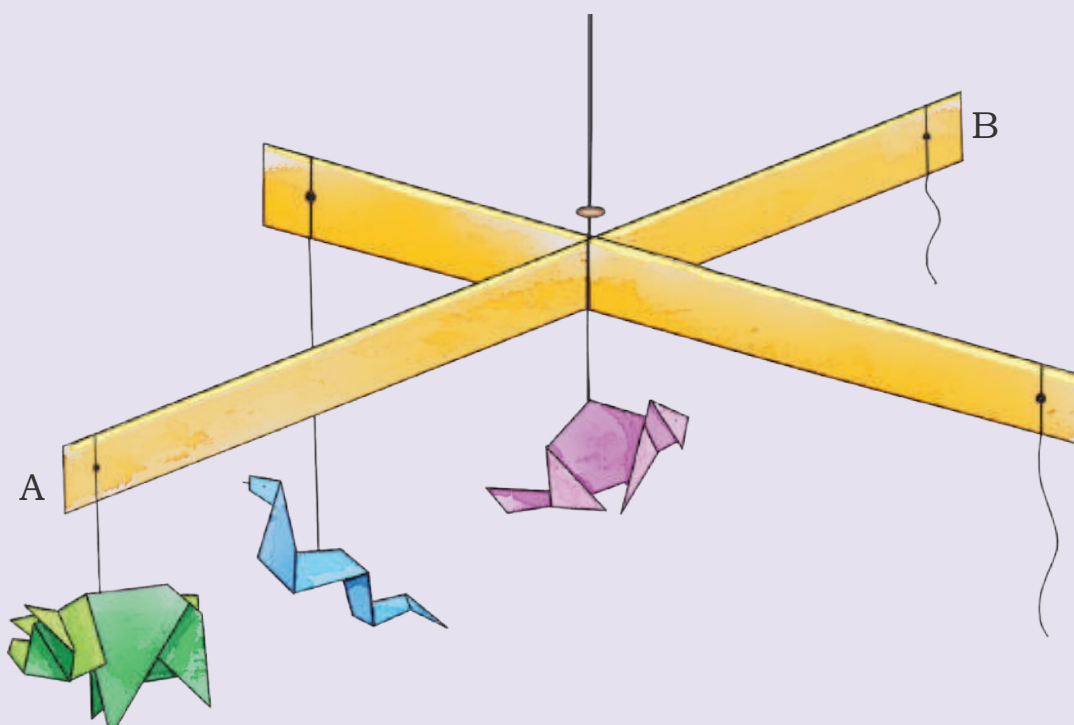
Let us reflect

1. Enquire about something

When Ravi spins a spinner, he notices that it slows down and eventually stops. He is curious about this and asks his teacher some questions. List at least two questions that he could ask.

2. Figure it out

- (a) The following figure is bending towards the side 'A'. What should be done to balance it?



- (b) How would you make a floating object sink and a sinking object float?

3. Do an activity

Classify the objects below based on whether they float or sink in water.

Wax	Marble	Thermocol	Candle	Coin
Cork	Leaf	Eraser	Spoon	Ice-cube
Potato	Tomato	Pumpkin	Lemon	

Things that float

Things that sink





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8

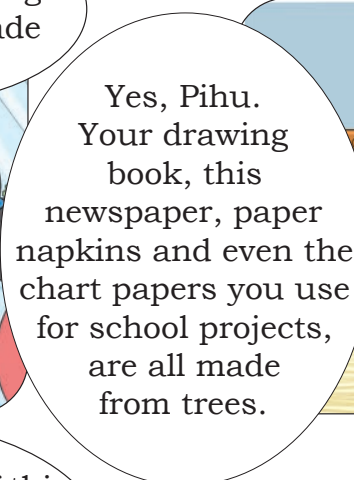
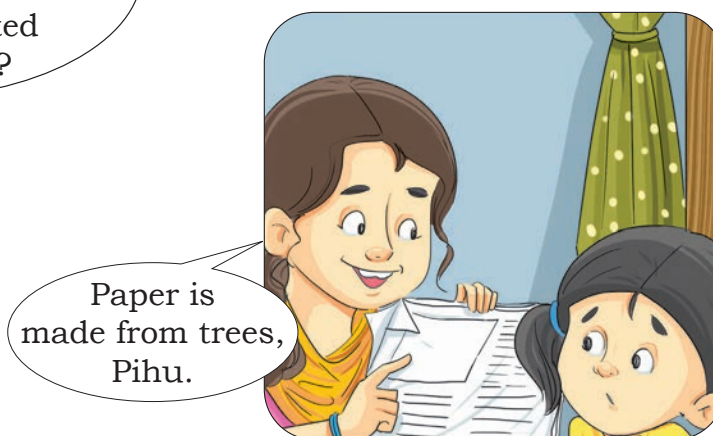
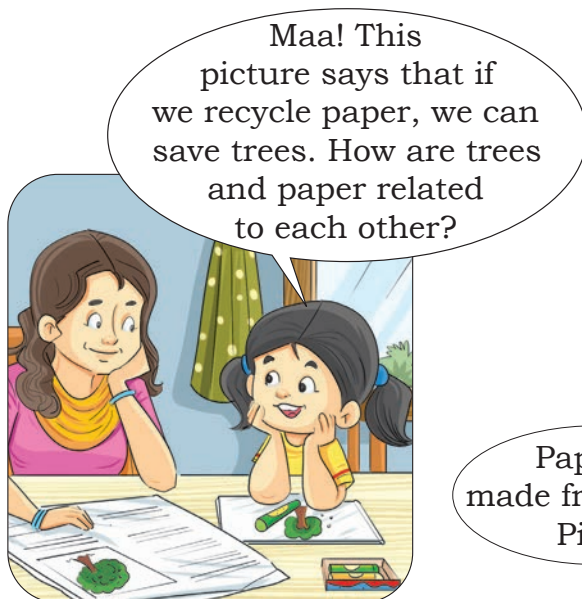
How Things are Made



We learnt in Grade 3 that things around us are made of different materials. Are you curious to know how these things are made? As an example, let us learn with Pihu how paper is made.

It was a Sunday and Pihu was busy painting in her drawing book. Her mother was reading a newspaper. When Pihu looked up, she noticed a picture of trees on the front page of the newspaper.







Activity

Make Recycled Paper

1. Collect materials: Old newspapers, some fenugreek seeds (*methi*) and water.
2. Prepare the paper pulp: Tear the newspapers into small pieces and soak them in water. Put a small quantity of fenugreek seeds in the water and leave it overnight. The fenugreek seeds are used as a binding material.
3. Using a grinder, blend or mash the soaked paper and fenugreek seeds, to create a wet mixture. Soaked paper can also be mashed using hands or any other available tool.
4. Roll out: Spread the paste on a flat base and roll it out into thin sheets.
5. Leave the rolled sheets of paper to dry. Your recycled paper is ready!





Cut the recycled paper into pieces of same size. Colour them using natural ingredients mentioned in the table below. You can use any other natural ingredients as well. Make sure that the quantity of ingredients used is the same for colouring each piece of paper. Write down your observations in the table below.

Natural ingredient used	Paste a sample of your paper here	Colour and brightness (dull/bright)
Turmeric		Yellow, dull
Spinach		
Beetroot		
Henna		



Paper can be painted with natural and artificial dyes. Natural dyes are made from different parts of a plant like the leaf, flower, root, seed, stem, etc. Thus, the produced natural dyes are safe to use. These are also used to colour various materials such as clothes and pots.

A Special Gift



Pihu gifted her mother a beautiful greeting card.

Pihu: Maa, thank you for teaching me how to recycle paper to make greeting cards.

Maa: Oh Pihu, this is lovely! It is a special gift for me.



Activity 3

Make a greeting card, a paper mask or any such item made of recycled paper.

Note to the Teacher

Guide the students to use paper pieces of the same size, and to use the same quantity of natural ingredients. Also, guide students to make colours using natural ingredients and encourage them to think creatively about different uses of paper.

Now, you know how to make recycled paper. The paper we see in books looks different from the recycled paper as it is made from wood pulp. A large number of trees are cut for this purpose.

The steps for preparing this paper are similar to the steps of making recycled paper. Making paper requires many trees, and a lot of water and energy. It is important to use paper and other materials responsibly (use only when needed).

So much effort is involved in making paper!



Do you know?

In earlier times, people used different materials instead of paper. They used cloth, leaves and wooden boards to write. People in India also used palm leaves called *talapatra*.

Environment-friendly material like banana fibre can be used to make paper! These alternatives save trees and protect our environment.



DISCUSS

1. Do you think that we waste paper?
2. How can we reduce wastage of paper?

Note to the Teacher

Teachers can take students on a field trip to a nearby paper mill if available.



 Activity 4

Different Types of Paper and their Uses

Observe the different types of paper that we use in our daily life, such as writing paper, newspaper, art paper, cardboard and tissue paper. Paste small pieces of different types of paper in the space given below and write their uses.

Types of paper	Uses
Paste here	
Paste here	
Paste here	
Paste here	
Paste here	

We use different types of paper for different purposes. For example, tissue paper is used for cleaning as it is very thin, soft and absorbs water. Cardboard is thick and hard, and so it is used to make boxes for packing various objects.

Do you know?

The Braille system helps visually challenged people to read and write by feeling the different patterns of tiny bumps on the Braille paper. The patterns represent different numbers, alphabets, and punctuation.



Making Responsible Choices

In our daily life we can follow a 5-step plan to reduce waste. They are called the 5Rs of waste management.

The 5Rs are:

Refuse: Saying 'no' to using things that generate waste. For example, refusing single-use paper cups.

Reduce: Using things carefully so that we can reduce the waste we generate. For example, using both sides of paper for making notes.

Reuse: Using something multiple times before discarding it. For example, using a gift bag again for another occasion instead of throwing it away.

Note to the Teacher

The teachers can guide students to bring used paper or small pieces of paper for the activity.



Repurpose: Using something in a new and innovative way. For example, creating toys or decorative items using old newspapers.

Recycle: Recycling is a process which involves steps that can turn a thing into something new. For example, old newspapers can be recycled to create handmade paper.

Let us explore these 5Rs a little more.



 Activity 5

Discuss the following situations with your classmates and write down which of the 5Rs it belongs to:

Example	5Rs of Waste Management
A family brings their own cloth bags to the grocery store instead of using plastic ones.	Reuse
Maya does not use a plastic straw to drink coconut water.	
Rohan uses blank pages of his old notebooks to avoid wastage of paper.	
Sara gives her old books to younger students for their use.	
Kabir paints an old bottle to use as a flower vase.	
Priya cuts old clothes to make a fun bag for carrying her books.	
A shopkeeper turns old newspapers into paper envelopes.	



By making these small changes in our lives, we can help our environment, save our resources and reduce pollution caused by waste products.



Let Us Get Creative with Paper

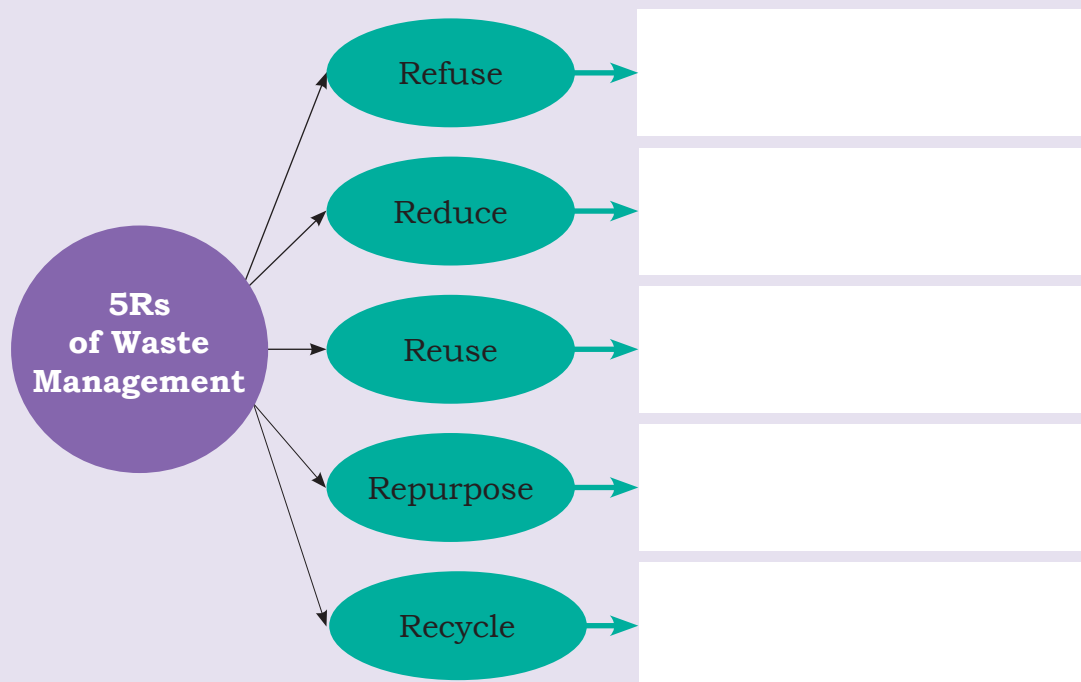
One can make many things with used paper. Here are some creative ideas to make toys and decorations using old newspapers.





Let us reflect

1. What are some objects that you can make using paper pulp? Ask your teachers and elders for more ideas.
2. Write down one step you can take for each of the 5Rs in the boxes given below.



3. Discuss the changes you can bring in your daily life by using 5Rs rule to avoid wastage of paper. Complete the table with your ideas for creating these changes.

Refuse	
Reduce	
Reuse	
Repurpose	
Recycle	

Our Environment

About the Unit

This unit familiarises students with various land forms, lives and wide range of activities around them. It also introduces the sky including the Sun, the Moon and the stars.

The world around us is full of wonders, from the land we walk on to the vast sky. 'Our Environment' invites students to explore the deep connection between nature and the everyday life. The experience of students in different landforms like plains, deserts, coastal regions and mountains enables them to discover how the natural set up in these places shape what they eat,

wear and celebrate. Students will also be able to explore the unique plants and animals in these regions, gaining a better understanding of how nature and culture are linked.

They will also look at the sky—the Sun, the Moon and the stars, and related cultural practices. Through observation, hands-on activities and creative expressions, students will be able to enrich their creative and analytical skills. They will also develop a deeper appreciation for both the natural world and the societies, they are part of.



Note to the Teacher

This unit consists of chapter 9—Different Lands, Different Lives, and chapter 10—Our Sky. The key concepts covered in these chapters are listed below.

Chapter 9

- ‘Different Lands, Different Lives’ helps to discover the beauty of diverse landforms by bringing special experiences from plains, deserts, coastal regions and mountains. It will enable students to realise how these landscapes influence the way people in these areas live, from their food and clothing to their houses and festivals. Students will be able to explore the unique plants and animals of these regions, and connect with their local surroundings and deepen their understanding of socio-cultural relationship with nature.

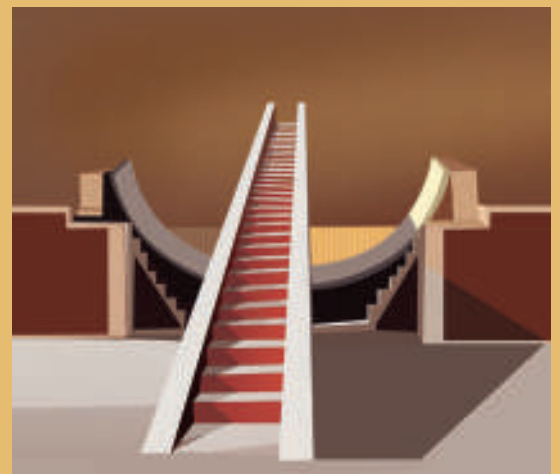
Chapter 10

- ‘Our Sky’ sparks curiosity about the wonders of the sky and the celestial objects like the Sun, the Moon and the stars. Through observation and activities, children will be able to explore, and appreciate the related cultural practices and festivals. They will also observe the shadows formed at different times of the day and derive the cause of their changing lengths.



Teacher to Facilitate

- Encourage students to share their travel experiences in the classroom. Guide them to create unique decorative items using materials from places they had visited and also locally available materials. Help students to conduct hands-on activities with torchlight and explore the shadows.
- Assign students to observe the Moon for a few days and sketch its changing shapes. Encourage them to draw star patterns they see at night.
- Arrange a stargazing session or a visit to a planetarium to deepen the students’ understanding of celestial patterns.





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9

Different Lands, Different Lives



Back to School from Holidays

The classroom was filled with excitement as children talked amongst themselves about their holidays. The desks were filled with colourful pictures and items from the places the children had visited. The teacher asked them to share their experiences.

Chandni talked about her visit to a beach in Odisha. Ritika described her experiences in the desert of Rajasthan, while Gurpreet told stories about a visit to his grandparents' house in Amritsar, Punjab. Finally, Nayan read out from his diary describing his visit to the majestic mountains of Sikkim.



Activity 1



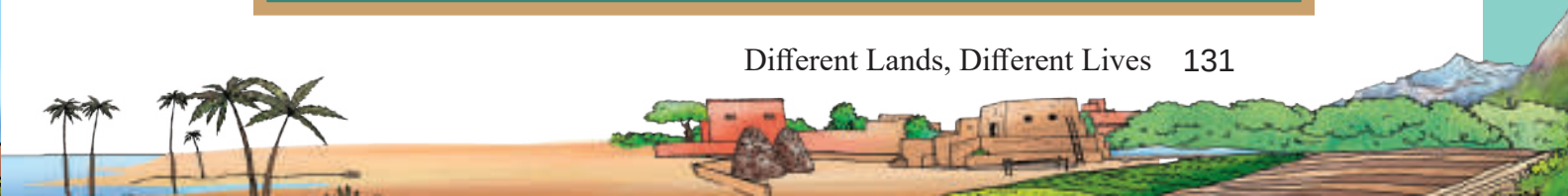
You might have visited some places during your vacation. Write the name of the places and something special about them. Ask two or three of your friends about the places they had visited, and fill the table given below.

Name of the friend	Name of the place	Types of regions (mountains, plains, coastal region, desert, etc.)	Something special about the place
Friend 1		Mountain	Pine trees
Friend 2			
Friend 3			
Friend 4			
Your Name			

- Which type of place do you find interesting?
- What similarities and differences do you find in the place you visited, and those visited by your friends?

Note to the Teacher

Encourage students who stayed at home during vacation to participate in the discussion. Ask them to share their experiences about the places near their house, and to mention their local culture, food, activities, etc.





In the Land of Agriculture, with Gurpreet



Write

Look at the picture above and write your observations:

1. What kind of land do you see in the picture?
2. List the activities that people are engaged in.
3. Which animals do you see in the picture?
4. Do you notice anything unique about the clothing of the people?



Gurpreet exclaimed, “*Jee aayan nu puttār!*” (Welcome my dear child!). He beamed with a smile and said that his grandmother welcomed him with these words. Gurpreet told his friends that there were large fields in the plains of Amritsar. The soil was rich and fertile, and many people were engaged in farming. He added, “Their favourite food is *makki di roti* (roti made with corn flour) and *sarson da saag* (made from mustard leaves) along with a big glass of *lassi*”.



Write

1. What is the most popular food in your region? Can you list the main ingredients used in its preparation?

Name of the food item: _____

Ingredients: _____

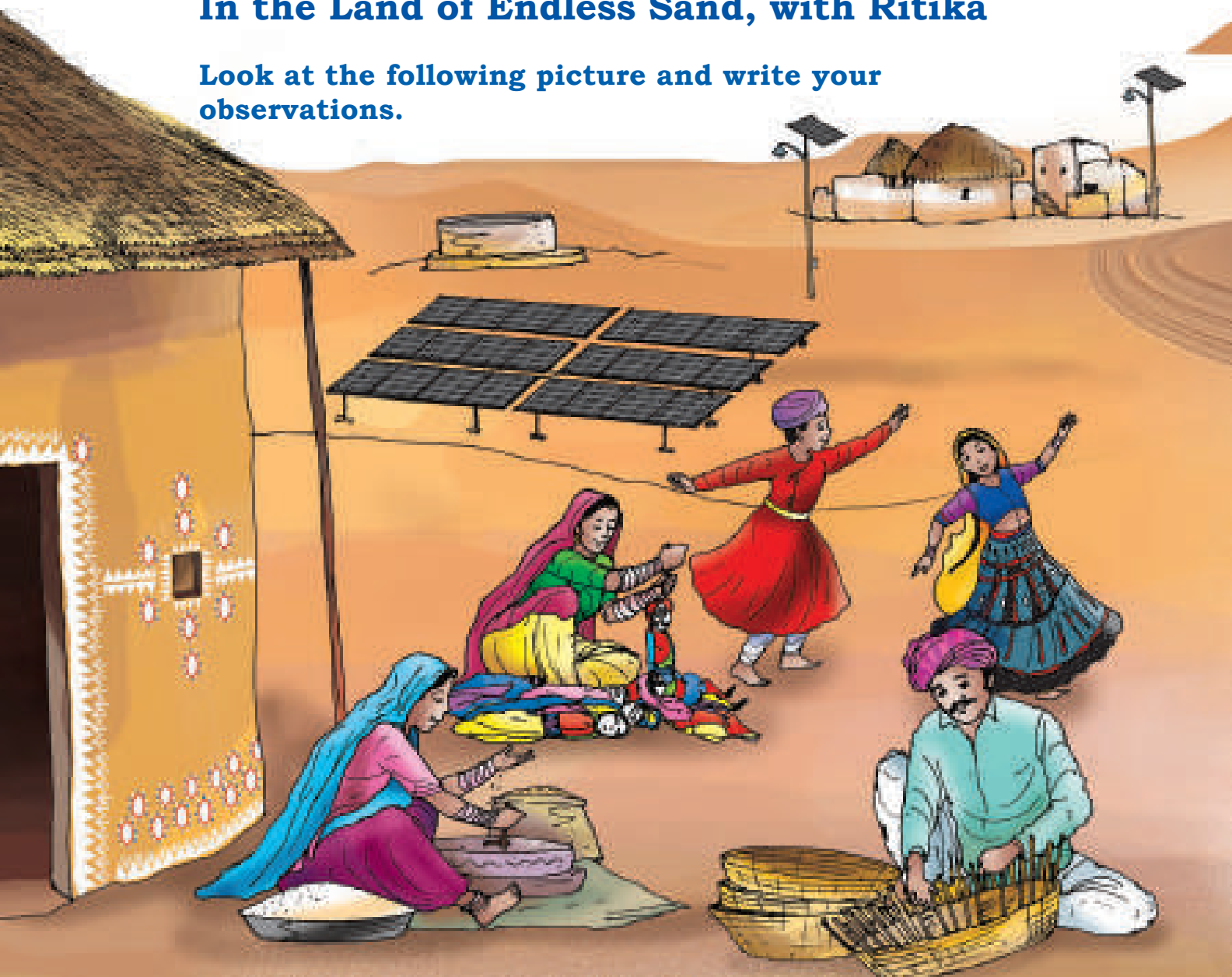


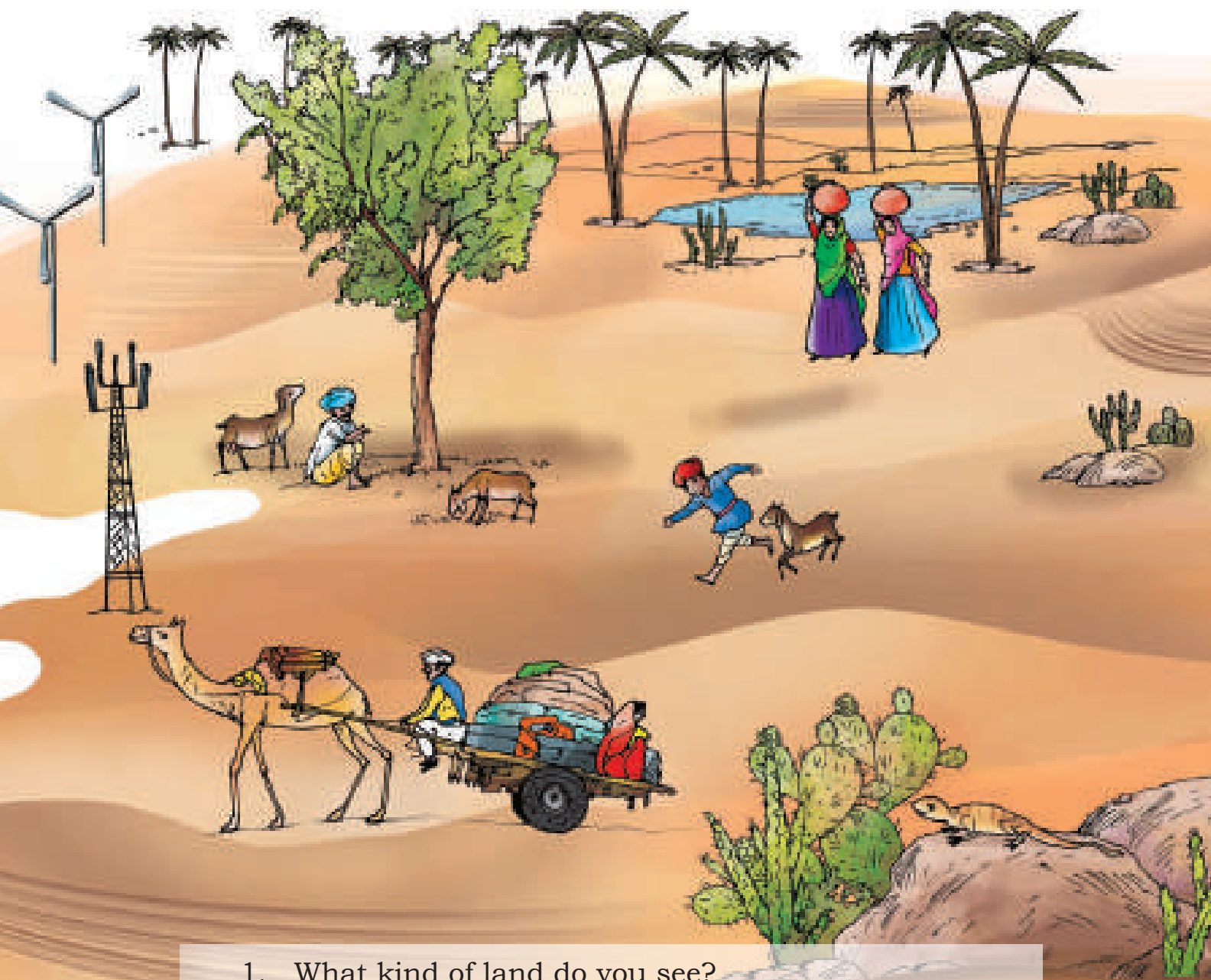


The Golden Temple, also known as Sri Harmandir Sahib, is one of the most important Gurudwaras of the Sikhs. The structure of the Gurudwara is gold plated and has a serene *sarovar* (water tank) surrounding it. The Golden Temple offers a *langar sewa* (community kitchen service) which serves free meals to all. It is one of the world's largest community service operations, where people volunteer to cook, serve and wash the dishes.

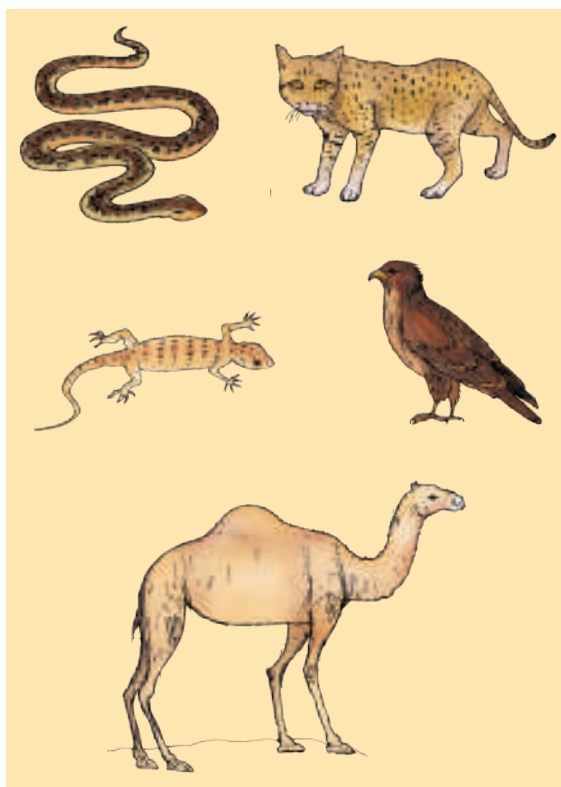
In the Land of Endless Sand, with Ritika

Look at the following picture and write your observations.





1. What kind of land do you see?
2. What types of plants do you see in the picture? How are they different from the plants you see in your locality?
3. Is there something unique about the way people in this village are dressed?
4. How do you think people travel in deserts?
5. What do you like the most in the picture?



A desert is a dry place with very little rainfall. Different kinds of plants like the cactus, *khejri* and *babool* grow in these areas. They can survive on very little water. Some plants such as the cactus store water in their stems.

Animals and birds like camels, lizards, wild cats, pythons and eagles are found in the deserts. The camel is called the ship of the desert.

Ritika showed the colourful bangles and a *bandhini dupatta* that she had brought from Rajasthan. "Women wear these with beautiful *ghaghras* while dancing. Men wear colourful turbans, and play the *khartal* and *sarangi*."





Ask your family members about the folk songs and dances from your region, and note them down in the table below.

Dance form	Folk music



Traditional houses in the desert are made of mud and thatched roofs. Many of the houses also have tankas (water tanks) for storing water. Some of the popular delicacies of the state are *dal-bati-churma* and *ker sangri*.





Jaisalmer Fort

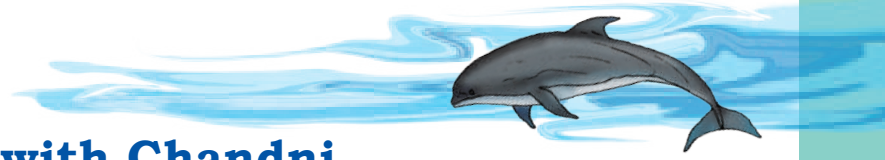
The Jaisalmer Fort is an example of a desert fort, with tall and thick walls made of golden coloured sandstone. The fort also stands out as one of the inhabited forts in the region. Satyajit Ray shot this fort extensively in his movie, '*Sonar Kella*'.



Discuss

Why do you think water is scarce in the desert?





On the Seashore, with Chandni

Look at the picture given below and write your observations.

1. List the different kinds of activities that the people are doing.
2. What kinds of trees are found near the sea, and how are they different from those in the deserts and plains?
3. List the fun activities you would like to do on a beach.
4. What is special about the dresses people wear in the coastal regions?

Chandni visited Puri, which is a coastal city in Odisha. Puri has amazing sand beaches where many artists create beautiful sand art. On the beaches, we can find various types of sea shells, including *shankh* (conch shell) which is blown during *pooja* in temples and houses.



07:00 AM

Saw fishermen riding in boats in the vast sea.



08:00 AM

Collected sea shells on the sea shore.



7:00 PM

Watched an Odissi dance performance.



10:50 AM

Went for a boat ride, and saw turtles and many other wonderful creatures.



12:30 PM

Mother bought a Sambalpuri saree.

04:00 PM

Enjoyed sand art on the beach.



In the coastal regions, many people depend on fishing for their livelihood. People of Odisha enjoy traditional dishes, such as *dalma*, *pakhala*, *chhena poda*, *rasagola*, etc.

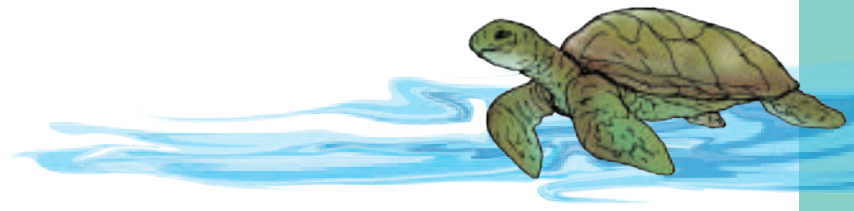


Activity 2

Let us Create

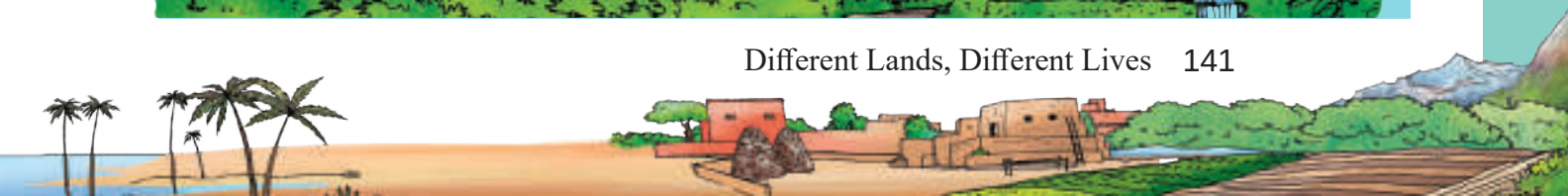
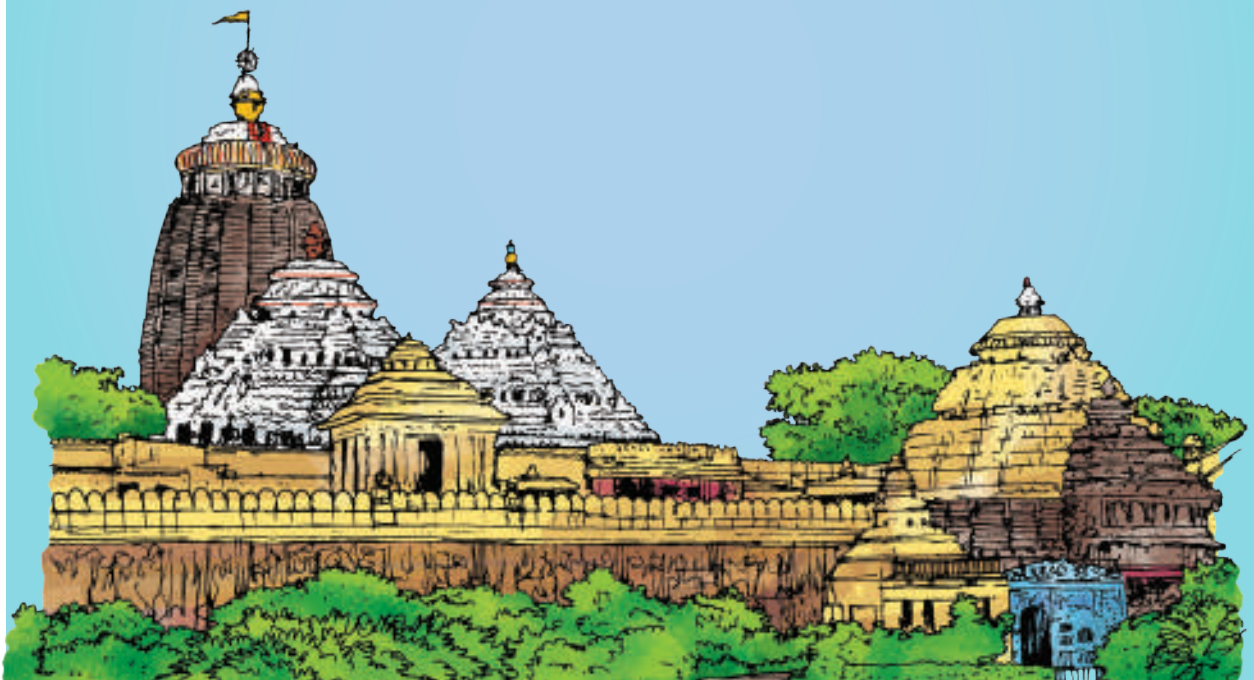


Use one coastal item to create a fun decor object like a photo frame, a necklace, a painted pebble, a mini basket or a sand art jar. Add your own creative twist and display your work in the class! You can use any other locally available materials to create the decor items.



Shree Jagannath Temple

Shree Jagannath Temple in Puri is one of the most popular temples in India. It is a beautifully carved temple, with huge gates. The city of Puri is famous for Rath Yatra, a grand chariot festival where thousands of people joyfully pull huge, colourful chariots of the deities — Jagannath, Subhadra and Balabhadra.





Discuss

1. Write your observations on how the life around a coastal region differs from the life in a desert.
2. Why is it important to keep our beaches clean?



Activity

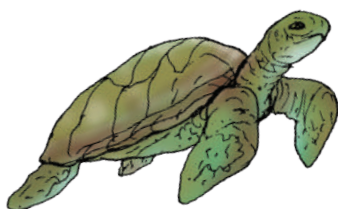
3

Can you identify these creatures?

sea turtle
corals

crab
seaweed

dolphin
starfish



Living with Challenges

People living in coastal regions face several difficulties. Chandni told her friends that strong winds and cyclones hit the coastal regions of Odisha quite often. It affects the lives of people, animals and trees adversely.



Do you know?

The coastal states experience cyclones from time to time. People study cyclones, and find out methods to protect the lives and resources. In recent years, the Government of Odisha has won national and international awards for saving people during cyclones by early warnings, advance preparations, and effective management.



Discuss

1. What are the adverse effects of a cyclone?
2. How can communities be better prepared for such situations?

Note to the Teacher

Show the images of cyclone affected areas and explain how cyclones impact life.



In the Mountains, with Nayan





Look at the picture above and write your observations.

1. What type of animals do you see in the picture?
2. How are the dresses worn by people living in the mountains different from those worn in your region?
3. Describe the trees found in the mountains.

Mountains are rocky landforms that rise high above the ground. They are usually cold. Many of the Himalayan mountains are covered in snow. Mountains often have steep slopes and are surrounded by valleys. We find mountains in different parts of our country. Nayan visited Sikkim, which is also in the Himalayan mountains.

Date: 10 February 2024

Place: Gangtok

Dear Diary,

The weather was cool, and the air felt clean and refreshing. We stayed in Gangtok, where the locals were nice and kind. They guided us to a magical spot to view Mount Kangchenjunga. When the sunlight turned the snow-capped peaks golden, it looked like a stunning painting! We also enjoyed delicious Sikkimese food like warm *thukpa*, and sweet and soft *sel roti*.

The locals wear beautiful traditional dresses like the *bakhu*, *dumdyam*, and *Gunyo cholo*. I also enjoyed a yak ride. Yaks are commonly used there for mountain travel.



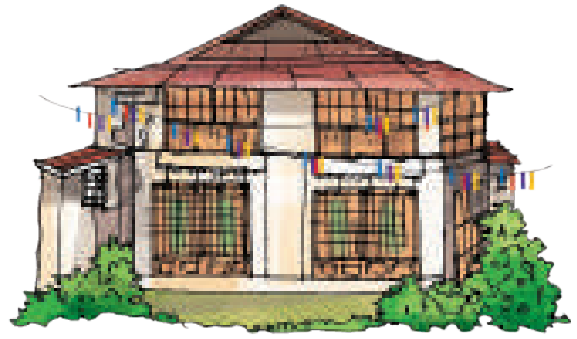
The pictures depict the vibrant diversity of Sikkim's plants and animals, rich culture, unique food, traditional housing, colourful clothing, and the lively festival of *Loosong* and *Namsoong*. Trees like oak, pine, walnut and chestnut are also found there.





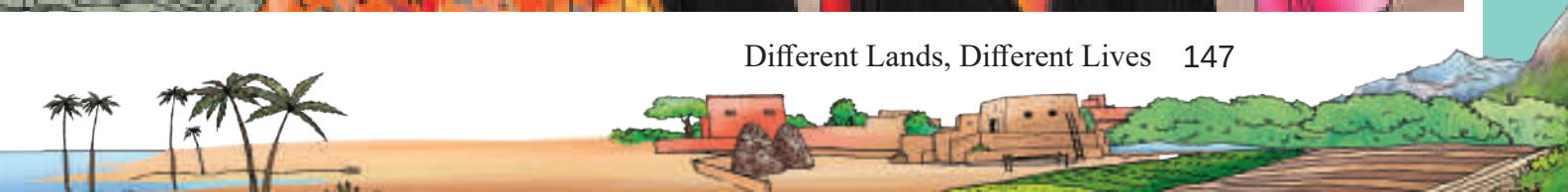
Discuss

1. How does the cold climate in mountain regions affect the way people live and dress?
2. What traditional clothes are worn in your region? How do they match with the local climate?
3. Why do you think certain trees, like pine and oak, grow better in the mountains?
4. How do animals like yak survive in the cold climate of Sikkim?



Do you know?

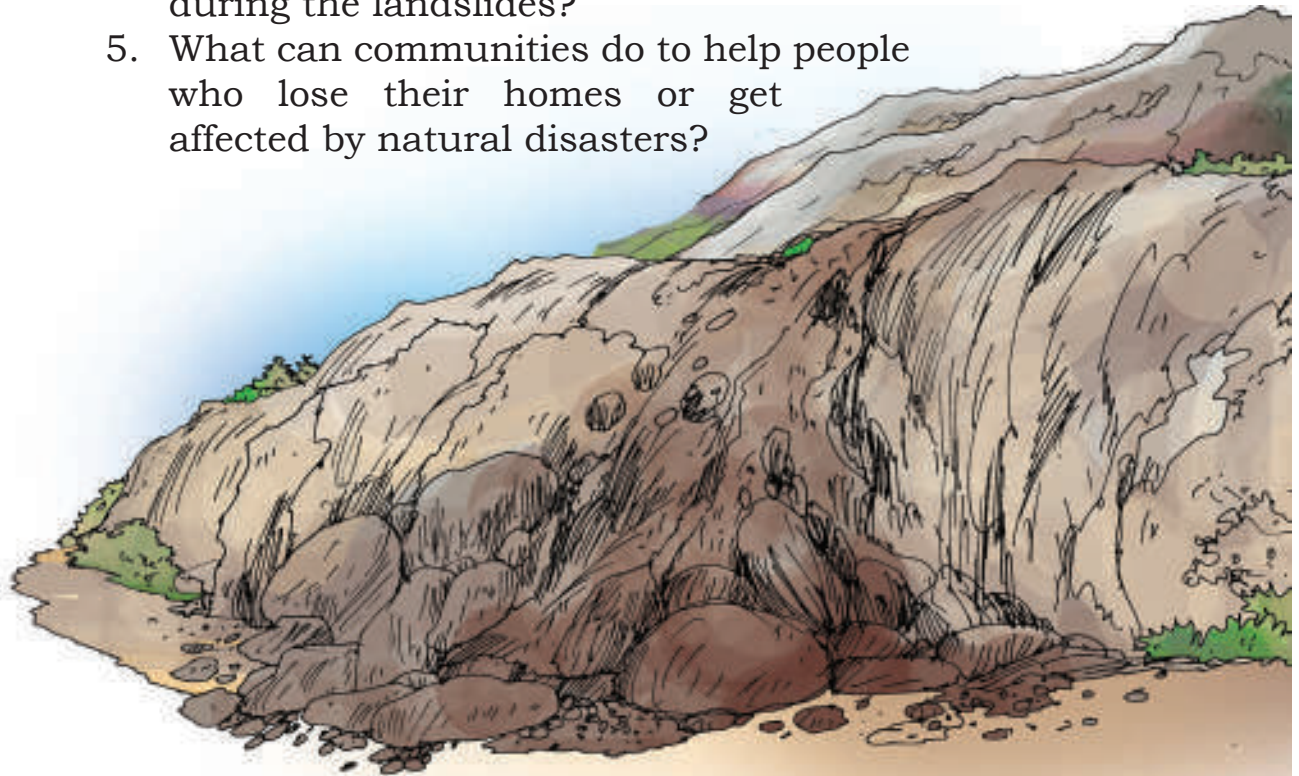
Loosong and *Namsoong* is one of the most significant festivals in Sikkim. This joyful festival marks the start of the Sikkimese New Year. It is an occasion to celebrate the hard work of the farmers. People enjoy the festival with various local dishes, traditional games, and a mask dance called *chaam*.





DISCUSS

1. Why do you think traditional houses in Sikkim are built with wood and have slanting roofs?
2. Does your house have any feature that is similar to the houses in the mountains?
3. Why are landslides common in mountains during the rainy season?
4. What do you think can be done to keep people safe during the landslides?
5. What can communities do to help people who lose their homes or get affected by natural disasters?





Life in my Landform

Draw the landform around you in the space given below. Name the area, the type of landform, some interesting features of the people, their professions, food, houses, plants and animals.

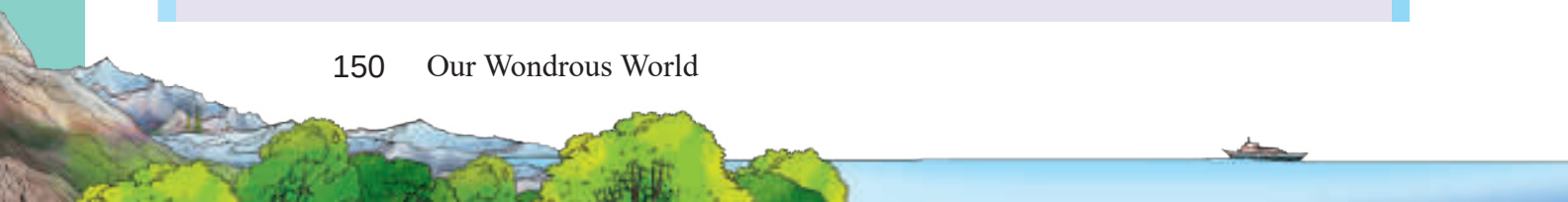
A large, empty rectangular box with rounded corners, intended for drawing a landform. The box is white and occupies the central portion of the page.



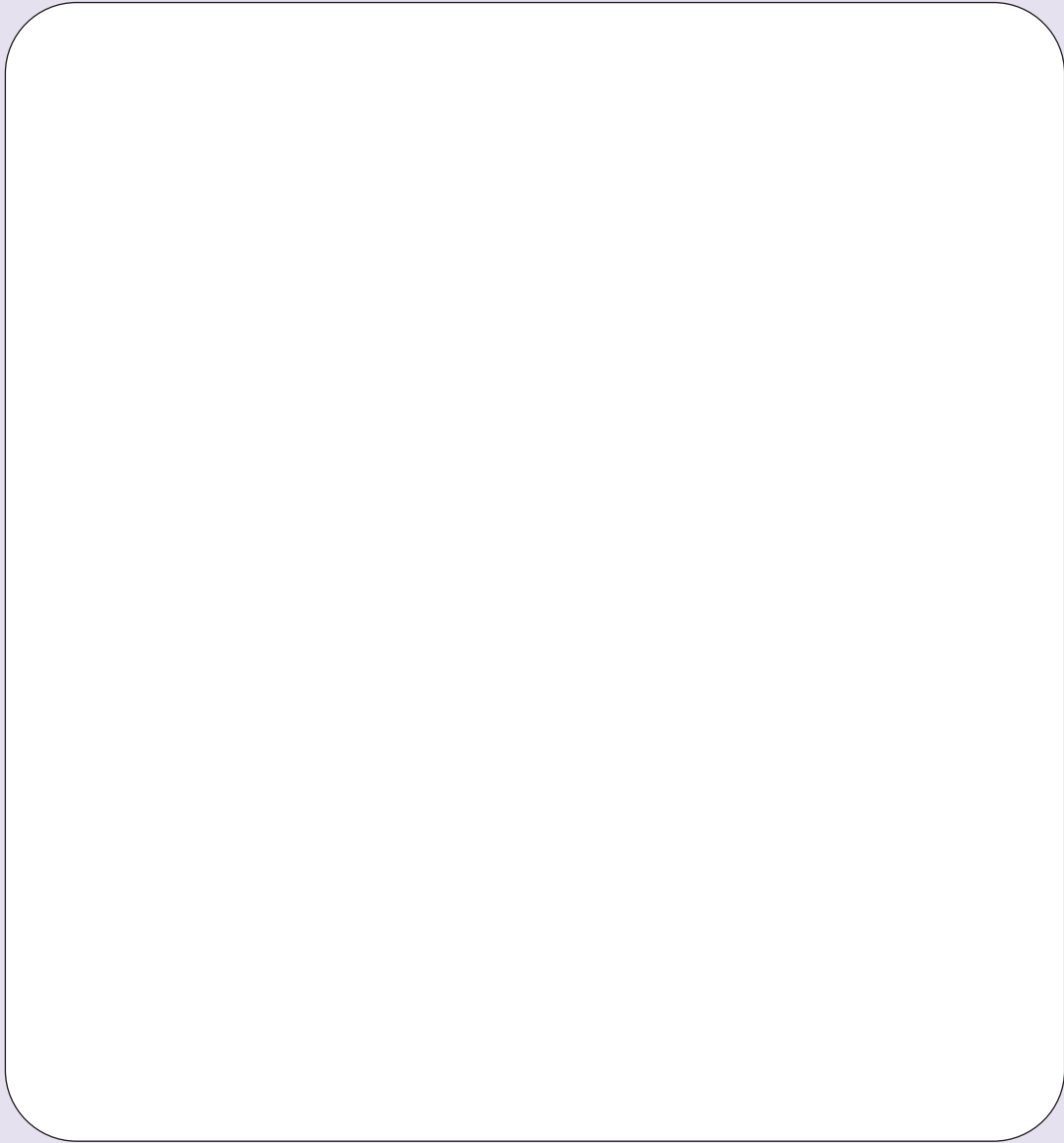
Let us reflect

1. Compare life in the mountains and plains by capturing the differences in trees, animals, houses, clothes, food, festivals and art forms.

Category	Plains	Desert	Coastal	Mountains
Trees				
Animals	Cows and buffaloes with shorter fur			
Housing				Wooden houses with sloping roofs
Clothing				
Food				
Festivals				
Art forms				



2. Design and draw a landform by combining your favourite features from mountains, plains, coasts, and deserts.



- (a) What made you choose different features for your landform?
- (b) How does each feature benefit people, animals or plants?
- (c) What difficulties might people face living in your landform?

Note to the Teacher

Conduct an activity on the diversity of your state.





10 Our Sky

Have you ever looked up at the sky? It appears different at various times of the day. The colour of the sky changes in the morning, afternoon and at night. The Sun's colour also appears to change. Even, the size and the shape of the Moon seem to change over time. The activities of birds, animals, trees and humans also vary during the course of the day.

Pictures of the Sky



Draw

Draw a picture of the sky as it appears in the morning, afternoon and at night, in the spaces given below.

Morning Sky

Afternoon Sky

Night Sky





Write

Write down what you observe in the sky during the morning, afternoon and at night, in the table given below. A few boxes are filled for you. You may expand your table by adding new points.

Morning Sky	Afternoon Sky	Night Sky
Orange colour of the sky		
	Sunlight is strong	Moon and stars
Orange Sun		

- Share your observations with your classmates and compare them.
- Have you observed any change in the activities, and the behaviour of animals and plants at different times of a day? Discuss these changes with your friends and make a list.

Can you guess the brightest object in the sky? It is the Sun! In fact, it is so bright that the other stars cannot be seen when it is present in the sky. The Sun gives us light and heat.

In the sky, the Sun is the most visible object. The Sun appears to rise in the morning. Then, it seems to move up till it comes overhead. Slowly, it appears to move downwards on the other side of the sky till it disappears. We all enjoy this visible journey of the Sun in the sky.



DISCUSS

Have you observed the changes during sunrise and sunset?

When the Sun rises:

1. How does the sky look?
2. What do the birds and animals do?
3. What changes do we find at home?

When the Sun sets:

1. How does the sky look?
2. What do the birds and animals do?
3. What changes do we find at home?



Note to the Teacher

Encourage students to observe and share various changes in the activities, and the behaviour of plants and animals, including humans at different times of the day.

The Shadows

Have you ever noticed your shadow moving along with you? If you run, the shadow seems to be running with you. If you make different poses, the shape of the shadow changes. Let us explore some interesting things about the shadows.



In the pictures above, what are the differences in the shadows? Shadows at morning are long, noon shadows are short and shadows at evening are long again. However, the evening shadows appear in the opposite direction of morning shadows.





Find out

Let us try something interesting.



1. Take a torch and a stick. Close the doors and windows to make the room dark.
2. Hold the stick in one place and turn on the torch. Shine the torchlight on the stick.
3. Observe the changes in the shadow of the stick, in the following situations:
 - (a) Move the stick back and forth.
 - (b) Change the direction of the torch.

Think and answer the following questions.

- If we change the distance of the source of light from the stick (an object), how will the shadow change?
- If we change the direction of the torch (source of light), how will the shadow change?

If the object is close to the source of light, the shadow is bigger. If the direction of the source of light changes, the direction of the shadow also changes. We observe that shadows in the morning and evening form in different directions. Why does this happen?



Draw

Draw the position of the Sun and corresponding shadows in the images given below.

Morning



Noon

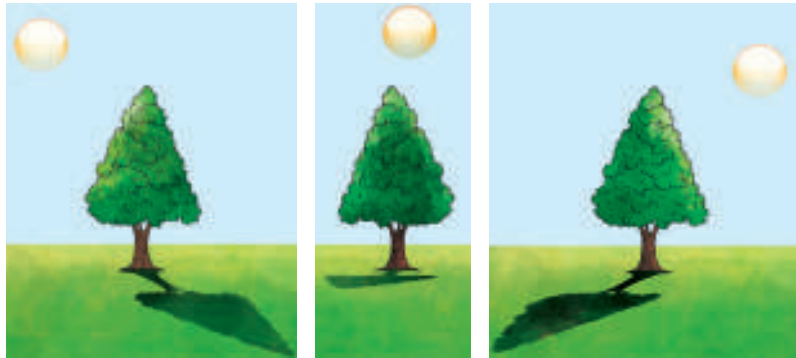


Evening



The Sun appears to move from the East to overhead till noon and then, gradually moves towards the West in the afternoon. The direction of the shadow also changes because of the movement of the Sun.

Shadow formation by the Sun



Morning

Noon

Evening

Do you know?

We can find out the time by looking at the shadows. Ancient people observed this phenomenon and came up with a device to tell time. It is called a sundial.

Raja Jai Singh of Jaipur built Jantar Mantar in Jaipur, Ujjain, Delhi, Varanasi and Mathura. It has a sundial called *Samrat Yantra* which can tell time accurately based on the shadow.



Play with Shadows

It is fun to make different shapes with shadows. Try it with your friends!

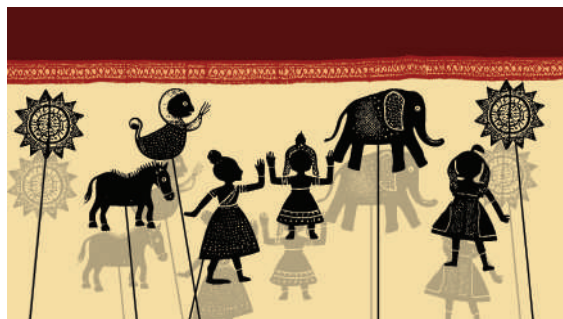


Note to the Teacher

Encourage students to make cut-outs and perform shadow puppetry.

Shadow puppetry has been practiced in India for a long time.

Night Sky



After sunset, the sky dazzles with thousands of twinkling stars. We observe various patterns of stars in the night sky. Draw any pattern you have observed, in the box below:

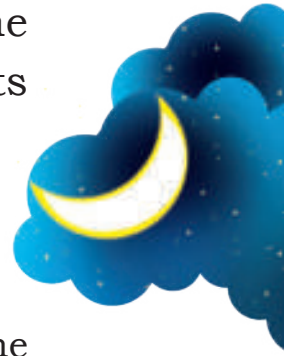


Share the drawing with your friends and discuss the common patterns of stars.

Note to the Teacher

The patterns observed by students may not match with the usually identified patterns, such as *Saptarshi* (Seven Sages). The intention is to encourage sky watching.

The Moon appears to be the biggest object in the night sky. It has always fascinated humans with its beauty and mystery.



Draw

Observe the Moon in the sky and draw the shapes of the Moon you have observed on different nights.

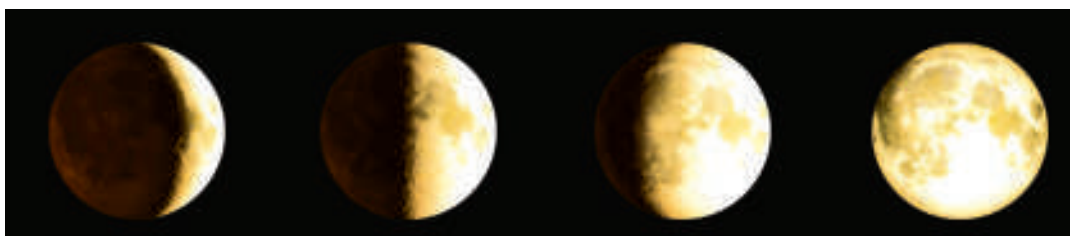


Discuss

Discuss with your friends:

- Is there a pattern to the way the shape of the Moon changes?
- Are there days when the Moon is not visible in the sky?

The shape of the Moon looks different on different nights. On some nights, it is a complete circle. This is known as *Poornima* or the full Moon. On some other nights, it looks like the letter 'C'. On some nights,



it looks like it has been cut down the middle. There are also nights when the Moon is not visible at all. This is known as *Amavasya* or the new Moon, which happens periodically. Therefore, people from ancient cultures used the shape of the Moon to keep count of the days. This gave rise to the earliest calendars.

We celebrate many festivals based on the appearance of the Moon. Diwali is celebrated on the day when there is no Moon in the sky. Rakshabandhan, Guru Poornima and Buddha Poornima are celebrated when the full round Moon is visible in the sky. Eid is celebrated on the day when the Moon is visible on the first night after a New Moon.



Chhath Puja



Karva Chauth



Eid



Pongal



Diwali



Write

Do you celebrate any festivals in your family or community related to the Sun or the Moon? What do you call them in your language?

India's Chandrayaan Mission

You learnt about the Chandrayaan mission in your English and Hindi textbooks of Grade 3. On 23 August 2023, India's Vikram Lander successfully landed on the Moon and collected data about the Moon's surface.



Let us reflect

- Give two differences between:**
 - Day and night
 - Sky in the morning and in the evening
 - Our activities during the day and at night
 - Activities of animals during the day and at night.
- Enquire about something**
A teacher said that the Sun appears to move from East to West during the day. Meera is curious about

this statement and has some questions for her teacher. List at least two questions that she can ask.

3. **Figure it out**

Suppose you stand at the same spot during the morning and the afternoon. In the morning, your shadow points in one direction, while in the afternoon it points in another. Why? Would the length of your shadow be the same at both times?

4. **Get creative with words**

- (a) Write your own poem inspired by the beauty of the sky.
- (b) Complete the riddle below and answer it—

Only one colour, but not one size

Appears with light, looks very nice

What is it?

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