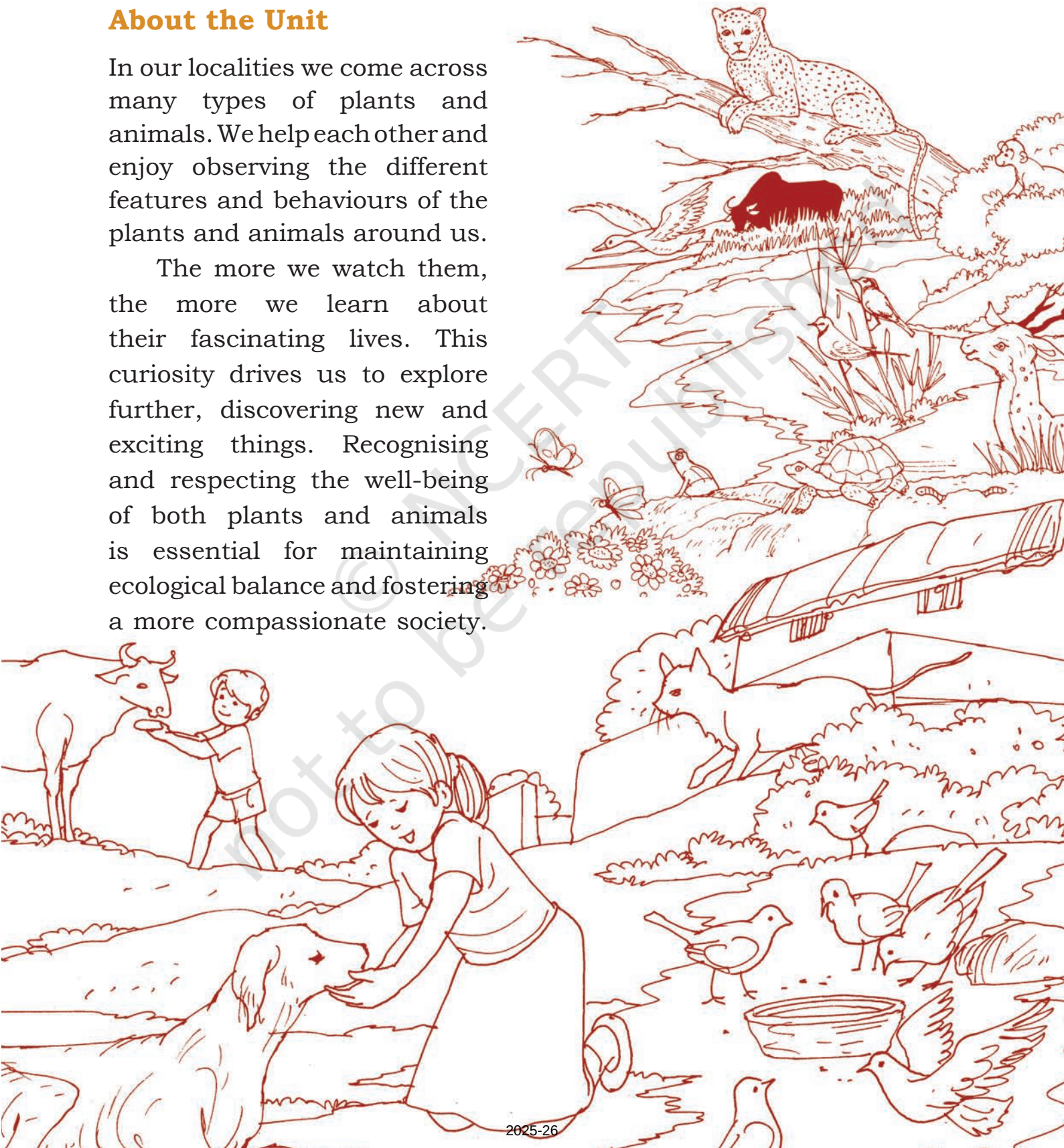
Unit 2

Life Around Us

About the Unit

In our localities we come across many types of plants and animals. We help each other and enjoy observing the different features and behaviours of the plants and animals around us.

The more we watch them, the more we learn about their fascinating lives. This curiosity drives us to explore further, discovering new and exciting things. Recognising and respecting the well-being of both plants and animals is essential for maintaining ecological balance and fostering a more compassionate society.



Note to the Teacher

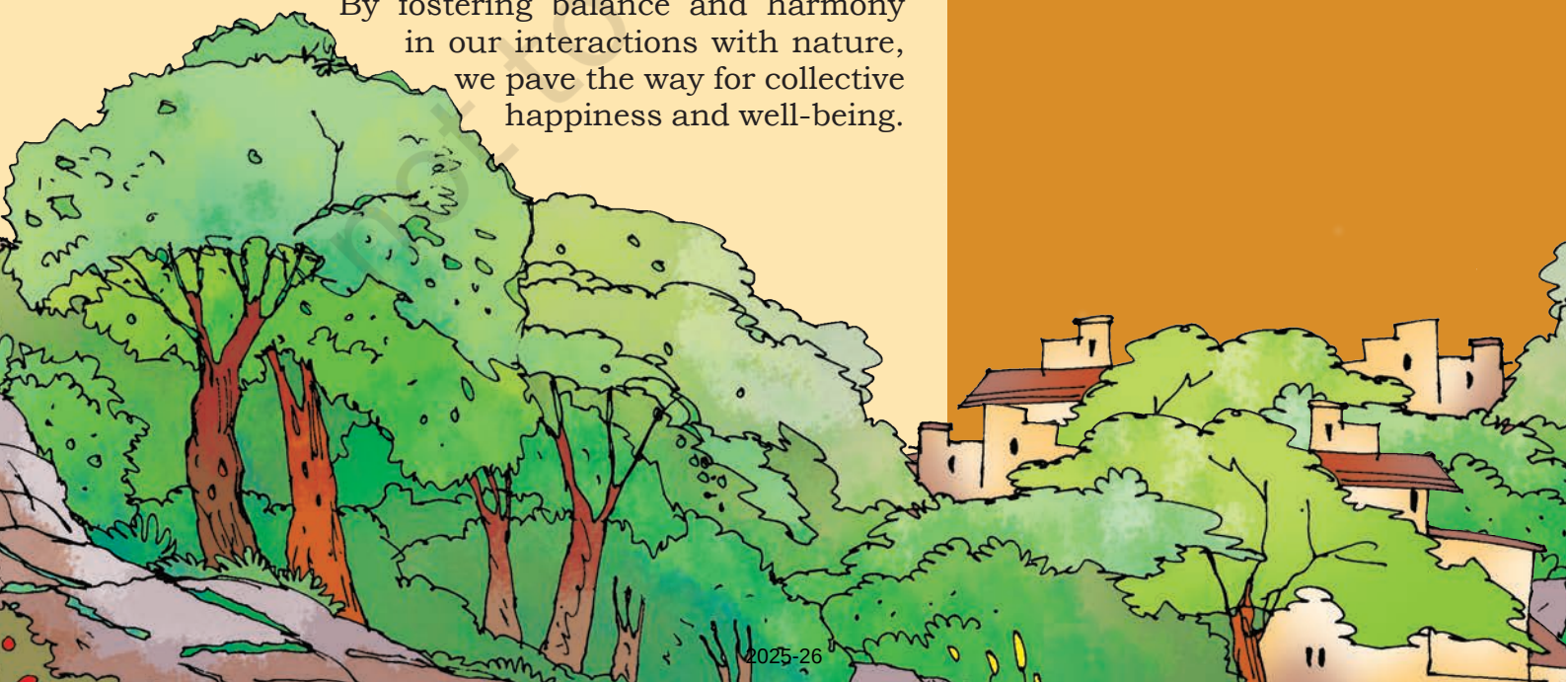
This unit is about 'Life Around Us'. The key concepts covered in these chapters are listed below.

Chapter 4: Getting to Know Plants introduces us to the diverse range of plants that thrive in our surroundings. Through observation, individuals become familiar with their physical features, importance, and diversity. They harness their creativity by utilising their leaves, flowers, fruits, and other parts of the plant. Additionally, they explore the essential requirements for a plant's survival and take proactive steps to nurture them, ensuring they receive the necessary care and sustenance.

Chapter 5: Plants and Animals Live Together shows the relation between plants and animals, by exploring their innate ability to support each other through observation. Individuals explore the diverse range of animals in their surroundings, studying their habits and habitats. Emphasising harmony, they prioritise nurturing the soil, animals, and plants, fostering a balanced coexistence within the shared ecosystem.

Chapter 6: Living in Harmony shows us that we are all deeply connected to plants and animals. Some of these plants and animals reside near our homes, while others dwell at a distance. It is essential to extend kindness to all living beings, nurturing and caring for them. By fostering balance and harmony in our interactions with nature, we pave the way for collective happiness and well-being.

- Have a display of animal mobiles, masks hanging from the ceiling; create animals and green areas using miniatures of animals and potted plants.
- Prepare flash cards of animals, birds, insects, flowers, and plants.
- Keep handy authentic and age-appropriate short videos and films, storybooks and poems related to the above concepts.
- Visits and Visitors: Plan a visit to a nature park, farm, animal shelter, or plant nursery, or visit professionals working there who can talk to the children.



Chapter 4

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Getting to Know Plants

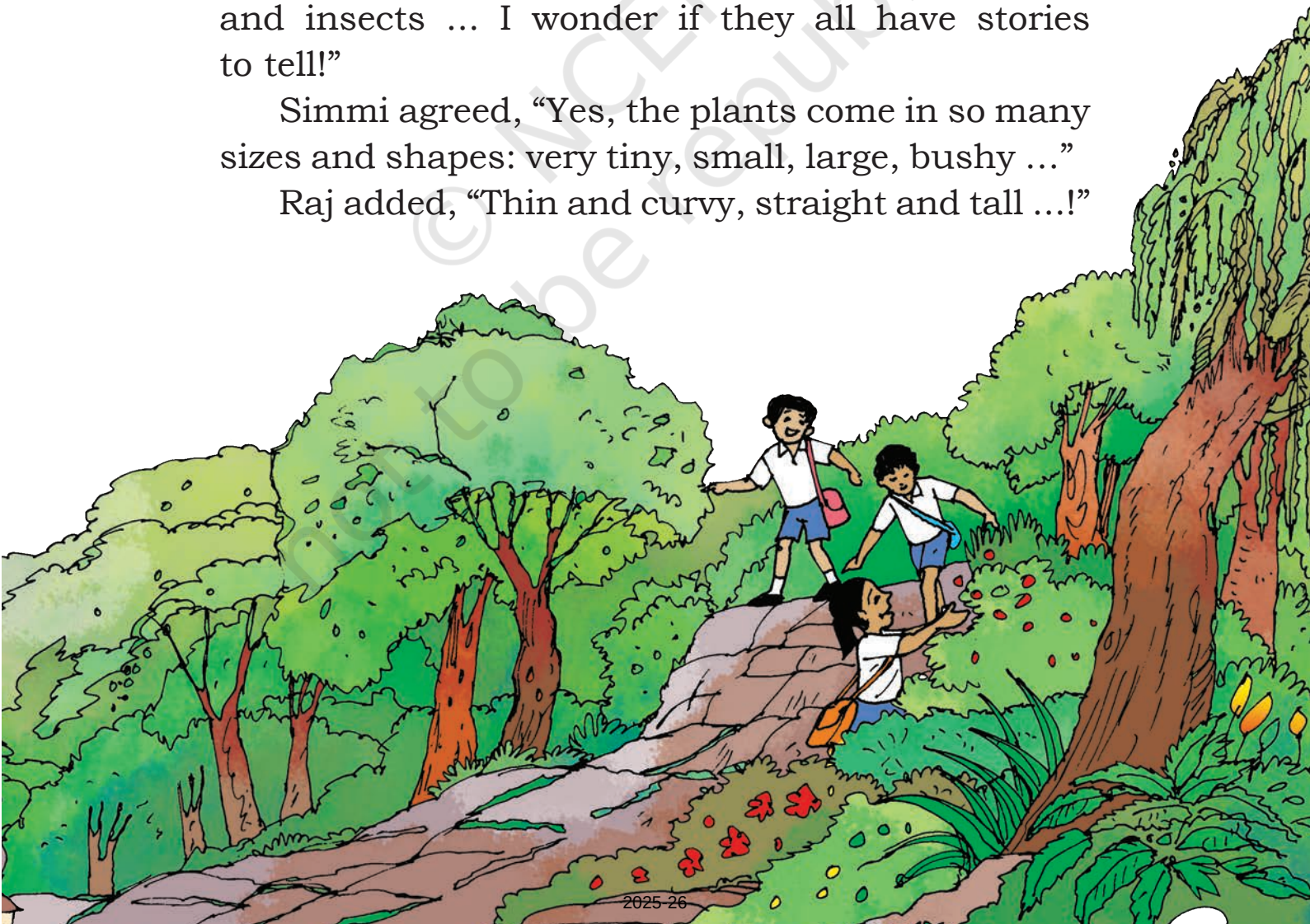
So Many Kinds of Plants

Gopu, Simmi and Raj walk to school every day. On the way they see beautiful flowers, mountains and streams.

One day, Gopu exclaimed, "Isn't nature just amazing? There are so many kinds of plants, birds and insects ... I wonder if they all have stories to tell!"

Simmi agreed, "Yes, the plants come in so many sizes and shapes: very tiny, small, large, bushy ..."

Raj added, "Thin and curvy, straight and tall ...!"



Gopu said, "Some leaves are rough and some smooth. I love to touch and smell them."

Simmi said, "Look, this *jamun* tree has nice thick and shiny leaves! Isn't it your special tree, Raj?"

Raj agreed, "Yes, it is! You remember its tiny white flowers? And remember the little green fruits, which in a few days turned red and then purple? We enjoyed plucking the ripe purple fruits from the tree!"

Simmi smiled, "It's such fun to walk under the cool shade of these trees."

Trees have a big trunk of wood and many branches that spread out with leaves on them. Trees have roots that go deep down into the soil.

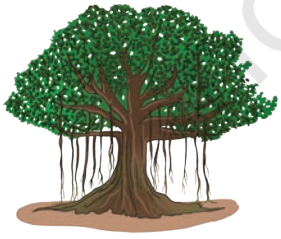
Trees

Mango

Coconut

Khejri

Jackfruit



Banyan

Amaltas

Peepal

Chinar

Write

Write the names of trees that you can recognise. Try to remember where you have seen these trees. Which of these trees have you seen near your home or on your way to school?

Shrubs

"All plants don't grow tall like trees. Look at this plant with pretty red flowers. It doesn't have a big trunk like a tree," said Gopu.

"Instead, it has many brown, woody stems," added Raj.

"These bushy-looking plants are called **shrubs**. Our *tulsi* plant at home is a shrub," informed Simmi.

Shrubs are medium-sized plants with several woody stems and branches growing close to the ground.

Hibiscus

Rose

Holy Basil (*tulsi*)

Curry leaf

Do you know?

The pulses (*dal*) we eat — *toor* (pigeon peas), *masoor* (red lentils), *moong* (green gram) and *urad* (black gram) — are all seeds of shrubs.

Toor *Masoor* *Moong* *Urad*

Write

- Write the names of some shrubs. Have you seen any of the shrubs shown in the pictures above?
- Do you know what they are called in your mother tongue?

Herbs and Grasses

"We have mint and tomato plants at home. Their stems are soft and green", said Raj.

"My grandmother told me that plants with tender stems that do not become woody are called **herbs**", added Gopu.

Simmi pointed to the grass, "Look at all these different grasses. They too have soft, green stems. Their leaves are long, thin and flat."

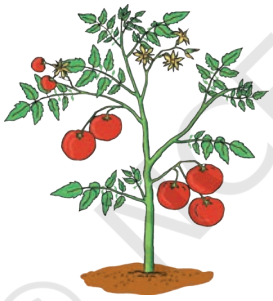
"You're right Simmi! Do you think grasses are types of herbs too?" enquired Gopu.

Herbs are smaller plants with soft stems that do not become woody. Grasses are types of herbs.

The leaves of **grasses** are thin and flat and their stems are hollow. Watch for different kinds of grasses around you. How many kinds do you notice?

Herbs

Mint

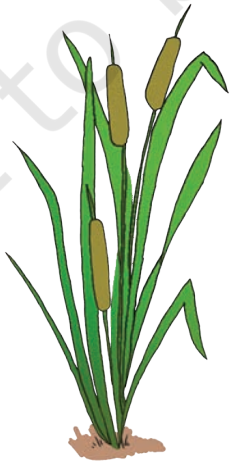


Tomato

Coriander

Mustard

Grasses



Wild Grasses

Do you know?

The grains you eat — paddy (rice), wheat, *bajra, jowar, ragi*, etc., are seeds of large grasses!


Paddy


Wheat


Bajra


Ragi


Jowar

Sugarcane and bamboo are tall grasses. Bamboo is a special kind of grass, which stays alive longer than just a year.


Sugarcane


Bamboo

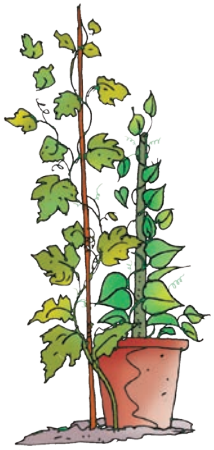
Write

Write the names of some herbs that you have seen and where you have seen them.

Climbers and Creepers

"Look! There is a vine winding up this tall tree!" exclaimed Raj.

Gopu agreed, "Wow yes! My friend George has a money plant in his house. I was surprised to see how it spreads upwards. It looks like it is slowly climbing the wall."



Simmi explained that the money plant has a long and thin stem. It cannot stand up by itself. If it finds nothing to climb on, it just creeps and spreads on the ground.

"The pumpkin plant is also like a creeper too. I saw it spreading its branches on the ground," said Raj.

Climbers and Creepers have thin and flexible stems. The plants that grow by climbing on other plants for support are climbers and the plants that grow by creeping along the ground are creepers. Some climbers even take their food from the plant on which they climb.

Climbers

Money Plant

Jasmine

Bottle Gourd

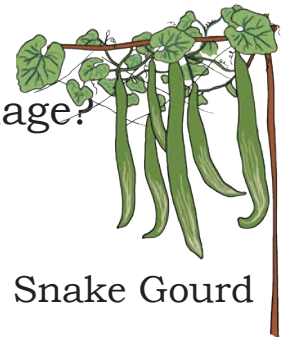
Creepers

Watermelon

Pumpkin

Guess

- Is this a creeper or a climber?
- What do you call it in your language?



Snake Gourd

Write

- Write the names of some climbers or creepers that you have seen and where you have seen them. Are any of them in the pictures given on page 53? What are they called in your language?
- Name these plants in your language. Say if they are a tree, shrub, climber or creeper.

Marigold (*Banthi* in Telugu)	***Neem*** (*Bevugida* in Kannada)	***Jujube* or *ber*** (*Boroi* in Manipuri)

Activity 1

- Stand, in groups of two to four, next to any tree or shrub that is in or near your school.
- Now look around, as far as you can see. Remember to look down near your feet as well!
- How many kinds of trees, shrubs, herbs, grasses, climbers or creepers can you spot?

Note to the Teacher

Use the local names of various locally available plants. The difference between creepers and climbers may be demonstrated by showing children the real plants. Remember that some plants can behave either like climbers or creepers depending on the structural support available to them.

Activity 2

Make Friends with a Plant!

Choose one plant, preferably a shrub with a thick stem or a tree that you want to make friends with. You can do this by yourself or with a group of your classmates.

Name your plant, just like you might name a pet. Take care of the plant by watering it each day. Also protect it as your friend.

Now observe your plant friend closely. Here are a few things to observe — its leaves, flowers and fruits. Are there many, a few or no leaves, flowers and fruits? Record your observations in the table on the next page.

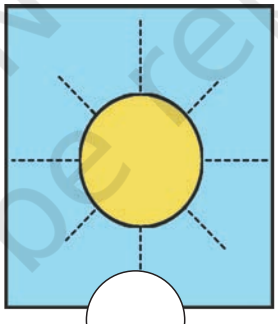
Time and date of observation: _____

Month: _____

Weather on the day you are recording this information:

_____

Visit your plant friend as often as you can and observe it carefully.



Plant parts	Many, a few or none	Colour	Shape (describe or draw)	Any other observation
Leaves				
Flowers				
Fruits				

Activity 3

- Do you find new leaves growing on the plant? Do the colours of the leaves change as they grow larger?
- Do the old brown leaves fall to the ground?
- Do you find flowers appearing or notice any fruit?
- What are other observations you have?

Note down your observations.

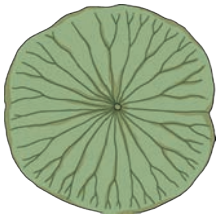
Write

Write about your plant in your notebook.

Leaves of different plants have different colours, shapes and sizes.

Peepal

Mango



Lotus

Khejri

Let us explore further.

Activity 4

- Observe the leaves in your surroundings.
- Draw, colour and label them in your notebook.
- Describe their colour, shape, size, texture and smell to your friend in the class.
- What statements can we make about leaves after doing this activity?

"Leaves smell different from each other. I have noticed that *tulsi*, coriander, curry leaves, mint and lemon grass all have wonderfully different smells," Raj told Simmi.

Simmi told Raj, "Have you ever rubbed a mango leaf and smelled it? I love the smell."

Raj added, "This conversation reminds me of the lovely smell of mangoes! My brother is not able to see but he can immediately smell any fruits nearby, like mango, pineapple, jackfruit, guava or *jamun*."

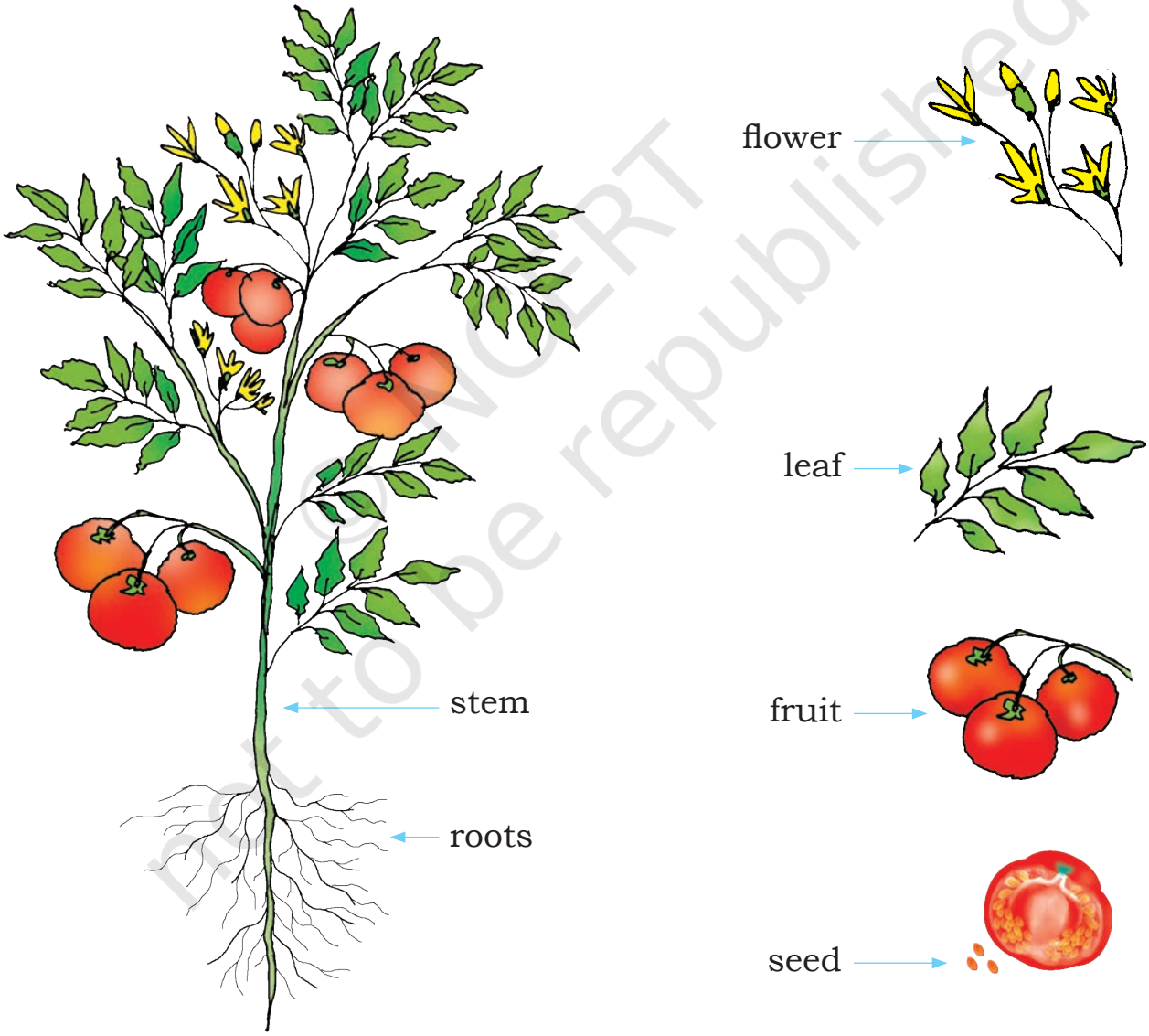
Activity 5

Blindfold yourself while your friend gradually brings a fruit close to you. From how far can you recognise the fruit with your eyes closed? Now repeat the same experiment with pieces of cut fruit. Was it easier to recognise cut fruit by the smell rather than the whole (uncut) fruit? Which fruit could you smell from farthest away? Try this experiment at home too.

Parts of a Plant

While learning about plants we used the names of many parts of plants, like roots, stems, leaves, flowers, fruits and seeds. Let us now look at a picture of a tomato plant and carefully observe the different parts.

- What are the parts of a plant?
- Mark different parts of the plant and label them.



Tomato plant

Activity 6

Get to know Barks

Bark is the hard outer covering of a tree trunk. Touch and look carefully at the bark of a tree. Do you see any animals, insects or plants on it? Press a sheet of paper on the bark. Gently move a crayon or a pencil repeatedly on it. See what you have!

Write the name (or description) of your tree on the reverse of the paper. Now collect all the papers of your friends and see if you can guess the tree just by looking at its bark pattern.

- Did you notice any other animals, birds and insects on the plant?
- What were they doing?

Do you know?

- Sugar is produced from the sugar cane stem.
- Bamboo is the tallest grass.
- Rafflesia seen in Mizoram is the biggest flower and is as big as an umbrella.

Rafflesia Flower

Let us reflect

A. Discuss

1. What would happen if there were no plants?
2. How does the root help a plant to grow?
3. What is the role of the stem?

B. Write

1. List the names of plants that you have seen in your school, park or near your home. Identify what types of plants they are — tree, shrub, herb, grass, climber or creeper.
2. Which particular part of the plant helped you to identify the type of the plant?
3. Describe your favourite plant. Why is it your favourite?

C. Draw

Draw different types of leaves you have seen around you.

D. Make a *rangoli*

Collect leaves and flowers fallen on the ground. Arrange them in patterns to make a *rangoli*. You may also create different animal shapes using the collected leaves.

Source: Leaf Zoo by Arvind Gupta, http://arvindguptatoys.com