Chapter 3: Nature Trail

CONTENTS 9 exercises · 24 questions

3.1	Safety Rules — Zoo and Forest	2 Q
3.2	Animals in the Forest	3 Q
3.3	Footprints at the Pond	2 Q
3.4	Birds — Beaks and Food	2 Q
3.5	Bird Diary and Water Animals	2 Q
3.6	Tiny Animals — Insects	2 Q
3.7	Leaves — Identification and Observation	2 Q
3.8	Leaf Autograph Activity	1 Q
3.9	Web of Life — Reflection Questions	8 Q

3.1 Safety Rules — Zoo and Forest

Q1 Can you think of rules that should be followed while you are in a zoo or a forest? (Give examples beyond the one provided.)

Sample answer: (b) We should not tease or disturb animals. (c) We should not make loud noises that scare the animals. (d) We should not damage or pluck plants, flowers, or branches.

Q2 Why are the safety rules important to be followed in a zoo or a forest?

Safety rules protect animals and plants from being harmed or disturbed. They also keep visitors safe from dangers like wild animal attacks or getting lost. Following these rules helps preserve the natural environment for everyone.

3.2 Animals in the Forest

Q1 Look closely at the picture of the forest and identify the animals. Divide them into two categories: (1) Animals on land, (2) Birds in the sky.

Animals on land: gaur (bison-like animals), deer, monkey. Birds in the sky: Indian roller / blue kingfisher-type bird (large blue bird), green parrots, small sparrow-like flying birds.

Q2 Name some animals including the birds that you have seen. Write any one feature of each of them.

Sample answer: 1. Elephant — has a long trunk to pick up food and water. 2. Sparrow — has a short, strong beak to crack seeds. 3. Dog — has sharp teeth and a keen sense of smell. 4. Crow — has a strong, pointed beak to eat a variety of foods. 5. Butterfly — has colourful wings to attract mates and absorb sunlight.

Q3 Compare the features of the Indian Giant Squirrel with the squirrels you see in your area.

Sample answer: The Indian Giant Squirrel found in Pachmarhi is much larger than the common squirrel we see in our area. It has a striking red-brown and cream coat, while the squirrels near our home are smaller and greyish-brown. Both have bushy tails and climb trees, but the Indian Giant Squirrel's tail is much longer.

3.3 Footprints at the Pond

Q1 Look at the footprints and guess the names of the animals that you think must have come to the pond to drink water.

The footprints shown in the mud are large, rounded paw prints (likely tiger or big cat — no split hoof) and some smaller prints. Animals that could have come to the pond include a tiger, a deer, and a rabbit (as suggested by the text on the page).

Q2 Observe and draw the footprint of any animal in the space given.

Sample answer: Observe the paw print of a dog or a cat at home or in your neighbourhood. Notice the central pad and the four toe pads around it. Draw what you observe carefully, noting the shape and size.

3.4 Birds — Beaks and Food

Q1 Name the birds shown in the pictures (hornbill, peacock, and other birds shown in the chapter).

The four birds shown are: (top-left) parrot — green with a red beak, (top-right) sparrow — small brown bird, (bottom-left) duck — white with an orange beak, (bottom-right) sparrow — brown bird perched on a branch.

Q2 Take different food items like grains, berries, fruits, nuts, etc. Try to pick these food items using a spoon, a toothpick or a pair of sticks. Fill the table with appropriate tool(s) for picking each food item.

Grains — spoon (scooping, like a duck's flat beak). Berries — toothpick (piercing, like a sunbird's long beak). Nuts — pair of sticks used as tongs (gripping, like a parrot's strong curved beak). Pieces of fruits — spoon or pair of sticks (picking, like a crow's sturdy beak).

3.5 Bird Diary and Water Animals

Q1 Go near a tree, listen to birds, observe one bird at a time and write your observations in a Bird Diary (name, date, appearance, beak shape, interesting facts).

Sample answer (Bird Diary entry): Name — Common Myna. Date — (today's date). Appearance — Head colour: black with a yellow patch around the eye; Back colour: brown; Wing colours: brown with a white patch visible in flight. Beak shape — short, pointed, yellow. Throat colour: black. Colour of legs: yellow. Interesting facts: The myna is a very noisy bird; it can mimic other sounds and is often seen hopping on the ground picking insects.

Q2 List the animals which live in and around water bodies. Fill in the table with the animal's name and how it moves.

Fish — swims. Crab — walks (sideways). Frog — jumps (on land) and swims (in water). Turtle — crawls on land and swims in water. Crocodile — crawls on land and swims in water. Snake — slides/slithers on land and swims in water.

3.6 Tiny Animals — Insects

Q1 What are the insects that you find at your home and in your surroundings?

Sample answer: I find ants marching in a line on the kitchen floor, mosquitoes near stagnant water, houseflies around food, cockroaches in dark corners, and butterflies near flowering plants in the garden. Dragonflies can be seen near ponds.

Q2 Name the insects shown in the pictures (a) through (g).

(a) butterfly, (b) cockroach, (c) beetle, (d) dragonfly, (e) ant, (f) praying mantis, (g) grasshopper.

3.7 Leaves — Identification and Observation

Q1 During the nature trail, students collected leaves from different plants. Help them identify the plants based on the pictures of the leaves (a) through (g).

(a) mango — broad oval leaf with a prominent central vein, (b) neem — narrow feathery leaflets on a stalk, (c) teak — very large broad leaf with smooth edges, (d) peepal — heart-shaped leaf with a long pointed drip tip, (e) tulsi/basil — small oval leaf with a pointed tip, (f) banyan — large broad oval leaf with a leathery look, (g) guava — oval leaf with slightly wavy edges.

Q2 Observe the leaves of different plants in your neighbourhood and fill the table (draw and name the leaf, colour, shape, texture, any other observation).

Sample answer: 1. Lemon leaf — green, oval, smooth, has a strong citrus smell when crushed. 2. Rose leaf — green with red tinge, oval with toothed edges, slightly rough, has thorns on the stem. 3. Banana leaf — green, very large and broad, smooth surface, tears easily along veins.

3.8 Leaf Autograph Activity

Q1 Do the Leaf Autograph activity — place a leaf vein-side up, cover with paper, rub a crayon over it. What did you observe? Name the plant or tree the leaf belongs to.

Sample answer: When I placed a neem leaf vein-side up and rubbed a crayon over the plain paper, the outline of the leaf and the pattern of its veins appeared on the paper. Each leaf gave a unique pattern. The leaf belongs to the neem tree. The veins of different leaves show different arrangements — some go from a central vein (midrib), others fan out from the base.

3.9 Web of Life — Reflection Questions

Q1 Which animal would you love to be? What special abilities would it give you?

Sample answer: I would love to be an eagle. It would give me the ability to fly high in the sky and see things from far away with sharp eyesight. I could soar over mountains and forests, spotting prey from great distances with my powerful curved beak and sharp talons.

Q2 How do you think different plants and animals are dependent on each other?

Plants and animals depend on each other in many ways. Animals eat plants for food, and some animals also eat other animals. Plants depend on bees and butterflies to carry pollen from flower to flower. Birds and squirrels spread seeds by carrying fruits to different places. When animals die, their bodies decompose and enrich the soil, helping plants grow. This web of dependence keeps nature in balance.

Q3 What is the role of a nature scientist?

A nature scientist studies plants and animals in their natural surroundings. They observe the features, habits, and behaviour of living things, and learn how different species depend on each other. Nature scientists also help us understand how to protect and conserve the environment.

Q4 Solve the puzzle — find the treasures of the forest (word search with animals and plants hidden in the grid).

Words hidden in the puzzle include forest animals and plants. Look for: TIGER, BANYAN, ELEPHANT, DEER, SQUIRREL, SNAKE, OWL, PARROT (search horizontally, vertically, and diagonally).

Q5 Take on the challenge — plan a nature walk with your family or friends. Identify a few plants and animals, study their features and interesting facts to share during the walk.

Sample answer: I will go to our local park and identify: 1. Gulmohar tree — has bright red-orange flowers and feathery leaves; blooms in summer. 2. Common butterfly — has colourful wings; feeds on nectar; helps in pollination. 3. Crow — black bird; intelligent; eats almost everything; makes nests in trees. I will note down these facts and explain them to my family during the walk.

Q6 Do an activity — Role-play: Create a scene of a forest in your classroom. Students perform roles of plants, animals, and visitors. Focus on our role to protect animals and plants.

Guidance: Assign roles — some students play trees, some play animals like deer, birds, and tigers, and others play forest visitors or rangers. The visitors should follow the safety rules (do not tease animals, do not damage plants). At the end, discuss how each living thing in the forest depends on others and what happens if one is removed.

Q7 Let us make a paper turtle using old newspaper or used paper (origami steps 1–9).

Follow the steps shown in the textbook: fold a square sheet of paper in half diagonally to make a triangle, fold again to get a smaller triangle, then fold out four corner flaps to form the four legs, shape the head at one corner, and round the back to form the shell. Use old newspaper to practise — paper turtles are a fun way to remember that turtles have a hard shell that protects them.

Q8 Find out — Write the name of your state animal, bird, and plant.

Sample answer (for Madhya Pradesh): State animal — Barasingha (swamp deer). State bird — Indian Paradise Flycatcher (Dudhraj). State tree — Banyan tree. (Students should find out and write the state animal, bird, and plant of their own state.)