

3

Nature Trail

Chapter Notes:

1. Introduction to the Nature Trail

- **The Trip:** Students went on a nature trail to Pachmarhi, Madhya Pradesh.
- **The Guide:** They were guided by Abha Didi, a Nature Scientist. A nature scientist is someone who studies plants and animals.
- **The Motto:** The unit follows the spirit of 'Vasudhaiva Kutumbakam', which means "the world as one family."

2. Safety Rules (DOs and DON'Ts)

- When visiting a forest or a zoo, we must follow these rules to protect nature and ourselves:
 - **Do not tease or feed animals:** It can be dangerous for you and unhealthy for them.
 - **Do not damage plants:** Do not pluck flowers or break branches.
 - **No Polythene:** Do not bring plastic bags as they harm the environment.
 - **No Weapons:** Do not bring firearms or pets into the forest.
 - **Cleanliness:** Do not throw garbage; keep the forest clean.

3. Diversity in Animals

Animals have unique features (body parts) that help them survive and eat.

A. Land Animals

- **Elephant:** Has a long trunk to reach for food and drink water.
- **Indian Giant Squirrel:** A large, red-coloured squirrel found in Pachmarhi.
- **Spectacled Monkey:** The state animal of Tripura is the Spectacled Monkey, named for the white patches around its eyes.
- **Gaur (Bison):** Looks like a buffalo but is much stronger with shorter horns.

B. Birds (Beaks and Claws) - A bird's beak and claws tell us about its eating habits:

- **Sparrow:** Short, strong beak to crack seeds.
- **Sunbird:** Long, thin beak to drink nectar from flowers.
- **Eagle:** Sharp, curved beak and sharp claws to catch and tear prey.
- **Hornbill:** Has a "headgear" on its forehead that looks like a horn.
- **Owl:** Has very sharp eyesight to see in the dark at night.

C. Water Animals

- **Fish:** Use fins to swim through water.
- **Gharial:** A type of crocodile with a long, narrow, and pointed snout to catch fish.
- **Turtles:** Have strong shells for protection and webbed feet to help them swim.
- **Frogs:** These are special because they can live on both land and in water.

4. Tiny Animals: Insects

Insects have specific features that make them different from other animals:

- **Six Legs:** They have three pairs of legs.
- **Antennae:** They have one pair of antennae to sense their surroundings.
- **Wings:** Many insects (like flies or grasshoppers) have two pairs of wings.
- **Examples:** Ants, beetles, bees, butterflies, and praying mantises.

5. Exploring Plants and Leaves

- **Diversity:** Leaves vary in color, shape, and texture (some are smooth, some are rough).
- **Veins:** The lines we see on a leaf are called veins. They help transport water and nutrients.
- **Leaf Autograph:** You can see the pattern of these veins by placing a leaf under paper and rubbing a crayon over it.

6. The Web of Life

This game helps us understand how all living beings are connected.

- **Interdependence:** A tree provides food for a bird; a river supports fish.
- **Balance:** If one part of the web disappears (e.g., plants are removed), the entire web weakens or collapses.
- **Vasudhaiva Kutumbakam:** This concept teaches us that the world is one family, and we must protect every part of it.

New Terms

New Term	Meaning
• Nature Trail	- A walk in a natural place like a forest to observe plants and animals.
• Nature Scientist	- A person who studies plants, animals, and the environment.
• Feature	- A special characteristic or quality of an animal or plant.
• Beak	- The hard mouth part of a bird used for eating food.
• Claws	- Sharp nails of birds or animals used for catching food or climbing.
• Antennae	- Feelers on the head of insects used to sense surroundings.
• Insect	- A small animal with six legs and usually wings.
• Veins (in leaves)	- Thin lines on leaves that carry water and food.
• Web of Life	- The Connection between living things in nature.
• Conservation	- Protecting and saving nature and natural resources.
• Sustainable Living	- Using natural resources carefully so they are not wasted.
• Footprints	- Marks left by the feet of animals on the ground.
• Nectar	- Sweet liquid found in flowers that birds and insects drink.

Write (Page 37)

Q 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)

Ans. Rules that should be followed while we are in a zoo or a forest:

- (a) We should not feed birds.
- (b) We should not tease animals.
- (c) We should not damage trees and flowers.
- (d) We should not throw garbage in the forest.

Discuss (Page 37)**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.

Q. Why are these rules important to be followed?

Ans. These rules are important because they protect the safety of both humans and animals, keep the environment clean and healthy, and ensure that nature remains undisturbed for everyone to enjoy. Following them helps us live in harmony with the environment, following the spirit of "the world as one family."

Activity 1 (Page 39)

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:

Ans.

1. **Animals on land:** Deer, Nilgai (blue bull), Bison (Wild buffalo), Monkey, Bear.
2. **Birds in the sky:** Parrots, Blue Jay Birds, Small flying birds (sparrow-like birds)

Write (Page 40)**Q. 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

Ans.

Name of the Animal/Bird	Feature
• Elephant	- Long trunk to take food and water
• Sparrow	- Short and strong beak to crack seeds
• Tiger	- Sharp teeth and claws for hunting
• Rabbit	- Long ears to hear sounds
• Peacock	- Colorful feathers and long tail

Write (Page 40)

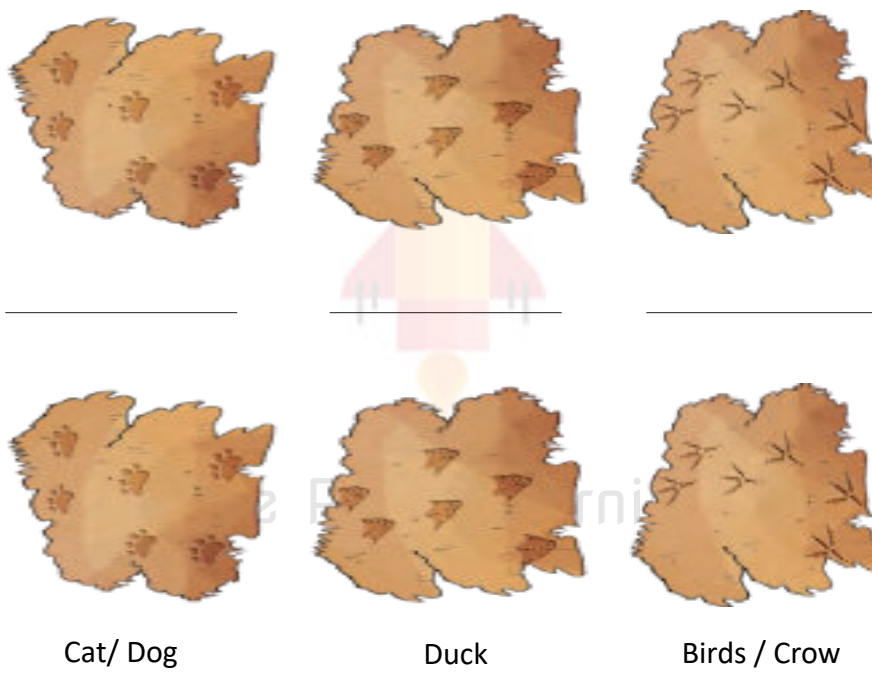
Q. Compare its features with the squirrels you see in your area.

Ans. Here are the main differences between the Indian Giant Squirrel and local squirrels in points:

- **Size:** The Indian Giant Squirrel is much larger and can grow up to 3 feet long (including the tail), while local squirrels are quite small.
- **Colour:** The giant squirrel has a bright reddish-maroon or brownish coat, whereas common local squirrels are usually grey or light brown with stripes on their backs.
- **Tail:** Its tail is exceptionally long, thick, and bushy, which is much more prominent than the smaller tails of local squirrels.
- **Habitat & Movement:** Indian Giant Squirrels spend almost all their time high up in the forest canopy and can jump up to 6 metres between trees. Local squirrels are frequently seen on the ground and make much shorter jumps.

Activity 2 (Page 43)

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



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

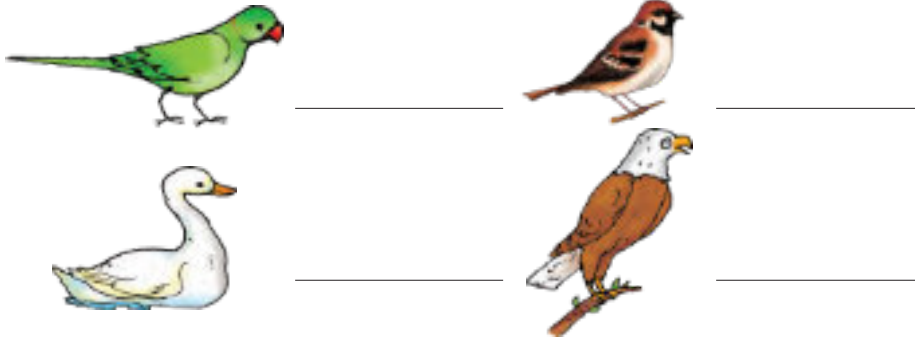
Ans. Students should observe and draw the footprint of any animal, such as a dog, cat, cow, or bird, in the given space.

Example: Footprint of a dog.

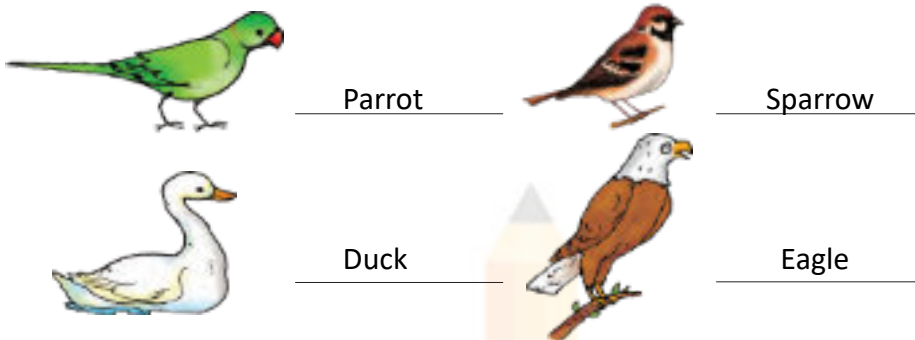


Write (Page 44)

Q. Name the birds shown below.



Ans.



Activity 3 (Page 45)

Q. 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	

Ans.

Food Item	Appropriate Tool(s)
• Grains	- Toothpick
• Berries	- Spoon
• Nuts	- Pair of sticks
• Pieces of fruits	- Spoon

Activity 4 (page 47)

Q 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: _____

Ans.

My Bird Diary

- Name:** Sparrow
- Date:** 14 March 2026
- Head colour:** Brown and grey
- Back colour:** Brown
- Wing colours:** Brown with black and white
- Beak shape:** Short and strong
- Throat colour:** Light grey
- Colour of legs:** Light brown
- Appearance:** Small bird with short tail and strong beak.
- Interesting Facts:** Sparrows eat seeds and insects and are commonly found near houses and trees.

Q 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	

Ans.

Name of the Animal	Movement
• Fish	- Swims
• Crab	- Walks
• Frog	- Jumps
• Turtle	- Walks and swims
• Crocodile	- Crawls and swims
• Snake	- Slithers
• Duck	- Walks and swims
• Swan	- Swims
• Otter	- Swims and runs

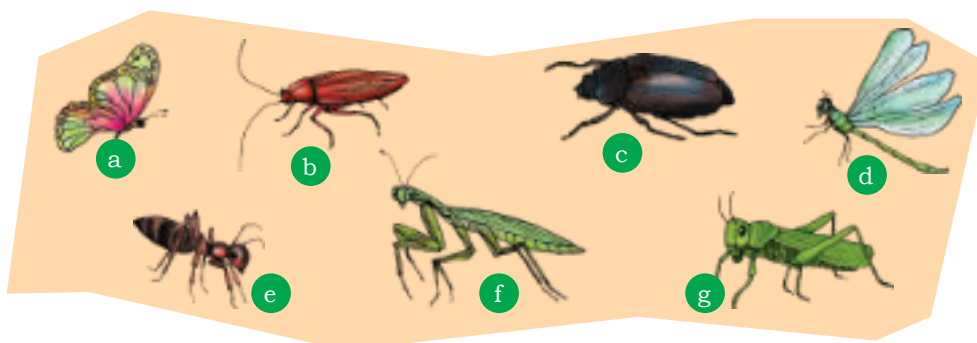
One Point Learning

Write (Page 49)

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

Ans. The insects found at home and in our surroundings are ants, houseflies, mosquitoes, butterflies, bees, and cockroaches.

Q 2. Name the insects shown below.



Ans.

(a) Butterfly

(b) Cockroach

(c) Beetle

(d) Dragonfly

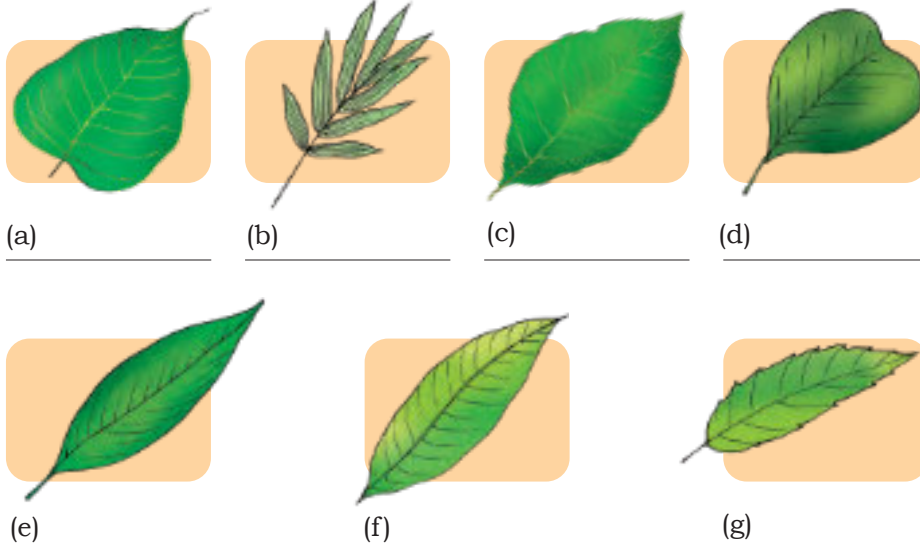
(e) Ant

(f) Praying mantis

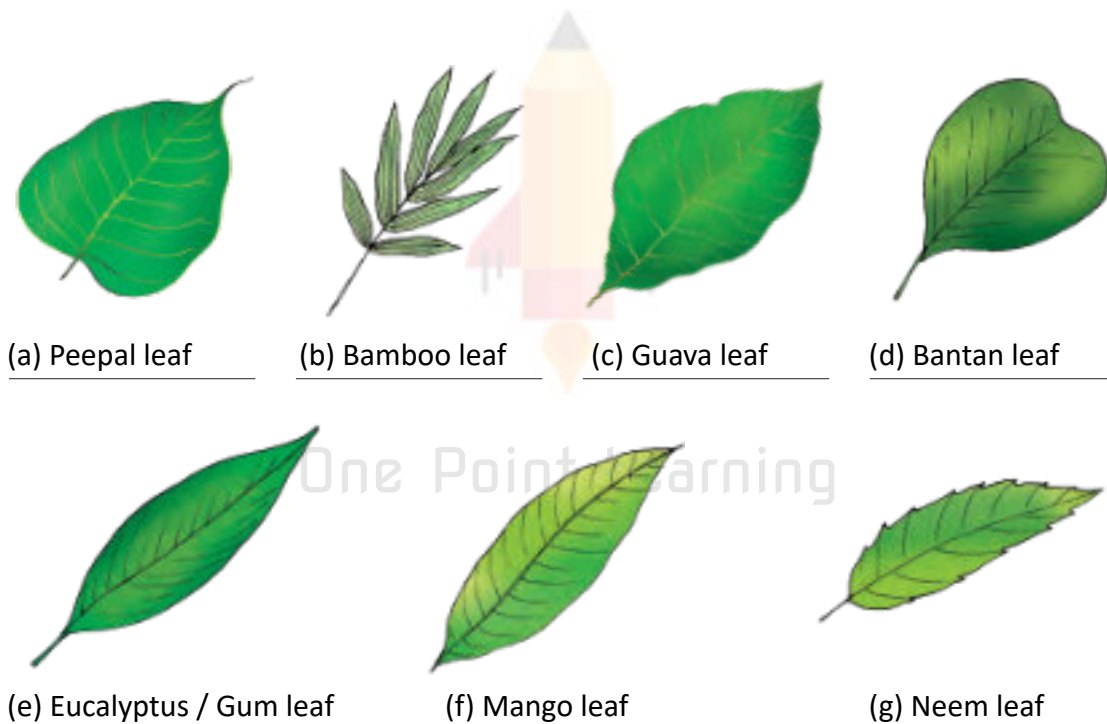
(g) Grasshopper

Activity 5 (Pages 50-51)


Q 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.








Ans.



Q 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

Ans.

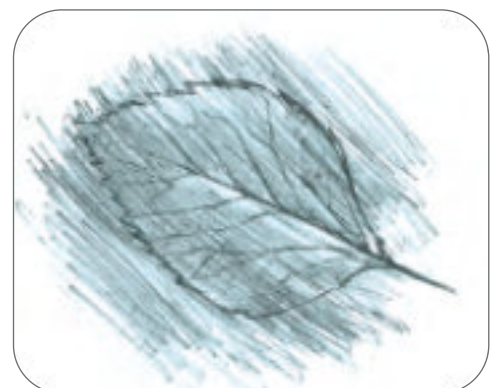
Draw and Name the Leaf	Colour	Shape	Texture	Any Other Observation
 Lemon	→ Green	- Oval	- Smooth	- Strong smell
 Mango	→ Dark green	- Long and narrow	- Smooth	- Thick leaf
 Neem	→ Green	- Small and narrow	- Slightly rough	- Bitter taste
 Banana	→ Light green	- Long and broad	- Smooth	- Very large leaf
 Tulsi	→ Green	- Oval	- Slightly rough	- Pleasant smell

Activity 6 (Page 52)**Leaf Autograph**

Q. 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.

Ans. Name of the plant/tree: Oak tree

Oak leaves usually have lobed (curved) edges and a clear vein pattern, which makes them very good for leaf rubbing or leaf autograph activities.



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.

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!

Ans.

Web of Life Game

In the "Web of Life" game, we imagine how all living and non-living things in nature are connected.

- The Sun gives energy to plants.
- Plants (grass, trees) make food using sunlight.
- Animals like deer and elephant eat plants.
- Birds eat insects or grains.
- Snakes eat small animals like rats or frogs.
- Eagles or big birds eat snakes or smaller birds.
- When plants and animals die, tiny organisms help decompose them and return nutrients to the soil.

This shows that all living beings depend on each other, forming a web of life.



Let us reflect

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

Ans. I would love to be a bird. It would give me the ability to fly high in the sky, see places from above, and travel freely from one place to another.

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

Ans. Plants give food, oxygen, and shelter to animals. Animals help plants by spreading seeds and helping in pollination. In this way, plants and animals depend on each other for survival.

3. What is the role of a nature scientist?

Ans. A nature scientist studies plants, animals, and the environment. They observe nature, learn how living things are connected, and help protect nature and wildlife.

Q 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

Ans.

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.

Ans. Take on the Challenge – Nature Walk

I can plan a nature walk in a nearby park with my family or friends. During the walk, I will observe different plants and animals and share some interesting facts about them.

Examples:

- **Neem Tree** – It has small green leaves. Neem is known for its medicinal uses and helps keep the air clean.
- **Banyan Tree** – It is a large tree with hanging roots. Many birds and animals live on this tree.
- **Squirrel** – It is a small animal with a bushy tail and likes to eat nuts and fruits.
- **Butterfly** – It has colourful wings and helps in pollination of flowers.
- **Sparrow** – It is a small bird with a short beak that eats seeds and grains.

During the nature walk, I will explain these features and interesting facts to everyone and encourage them to protect plants and animals.

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.

Ans.

Role-Play Activity – Protecting Nature

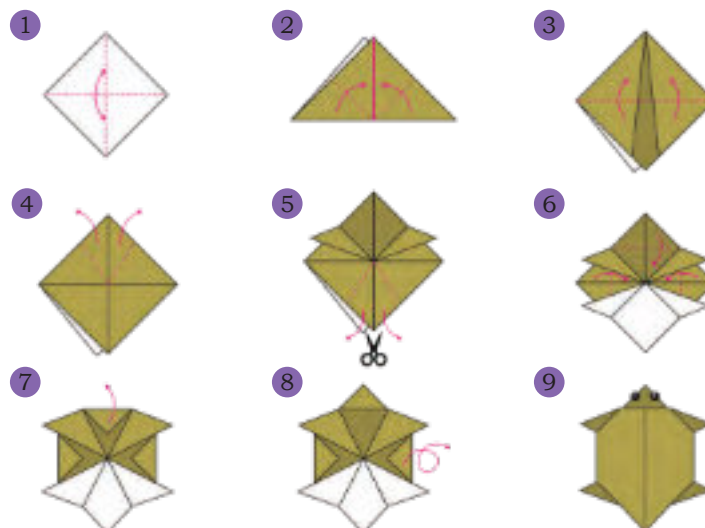
In this activity, we can create a forest scene in the classroom.

- Some students can act as trees, plants, animals, and birds like deer, tiger, rabbit, and sparrow.
- Some students can act as visitors to the forest.
- The visitors should follow rules of the forest, such as not plucking flowers, not feeding animals, and not throwing garbage.

During the role-play, animals and plants can show how they depend on nature for food, water, and shelter. The visitors can promise to protect the forest and care for plants and animals.

Message of the activity: We should respect nature and protect wildlife and forests.

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



Ans. Do it yourself

8. Find out

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

Ans.

1. Rajasthan

- State Animal: Camel
- State Bird: Great Indian Bustard
- State Plant (Tree): Khejri

2. Maharashtra

- State Animal: Indian Giant Squirrel
- State Bird: Yellow-footed Green Pigeon
- State Plant (Tree): Mango Tree

3. Kerala

- State Animal: Elephant
- State Bird: Great Hornbill
- State Plant (Tree): Coconut Tree

4. Karnataka

- State Animal: Elephant
- State Bird: Indian Roller
- State Plant (Tree): Sandalwood Tree

5. Assam

- State Animal: One-horned Rhinoceros
- State Bird: White-winged Wood Duck
- State Plant (Tree): Hollong Tree

6. Gujarat

- State Animal: Asiatic Lion
- State Bird: Greater Flamingo
- State Plant (Tree): Banyan Tree



One Point Learning