

Lesson-9: The Plant and Animal Life of India

Theme 6: How Was Our Country Made?

11 Periods (40 minutes each)



Learn Better (Main Coursebook), Stay Ahead (Workbook), Book of Holistic Teaching, Book of Project Ideas, Poster, CRM signs



Animation, Animated Activities, Concept Map, Dictionary, eBook, I Explain, Quiz, Slideshow, Test Generator

Affirming better

Nature's beauty makes me happy.

Curricular Goals and Objectives (NCF)

To enable the students:

- to explore the flora and fauna of India and understand their ecological importance.
- to examine animal adaptations to extreme climates and learn about notable Indian scientists in ecology.
- to develop empathy for living beings and contribute to community welfare.
- to understand the role of medicinal plants in health and document scientific observations.

Methodology

Period 1

Teacher: Good morning, students. How are you all today?

Teacher: Great. Before we dive into our lesson, let us take a moment to relax and focus our minds with a short meditation. Ready?

Teacher: Sit comfortably in your chair, with your back straight and feet flat on the ground. Close your eyes gently and take a deep breath through your nose. Hold it for a moment, then slowly breathe out through your mouth. Let us do these three more times. Breathe in... and breathe out. As you breathe, imagine your mind becoming clear and ready to learn.

Open your eyes and smile at your friends. Let us start our lesson with positive energy.

Confirming better

Teacher: Before we start the class, let us all say together something positive, 'Nature's beauty makes me happy.' Repeat after me: 'Nature's beauty makes me happy.'



Confirming better Nature's beauty makes me happy.

PLH 61

Teacher: Alright. Today, we are going to begin a new chapter 'The Plant and Animal Life of India.' We use a KWL chart to help us organise our thoughts and learning. I have made a KWL format on the blackboard. Please take out your notebooks and draw the same format.

K	W	L

Teacher: Let us start by filling out the 'K' and 'W' columns. Take a few minutes to think and write. If you have any questions, feel free to ask.

Teacher: Before we start the chapter, we will do a quick Re-KAP, which involves revisiting our previous knowledge through creative activities using Kinaesthetic, Auditory and Pictorial methods to make our learning interactive and engaging.

Kinaesthetic

Teacher: Good morning, students. Today, let us begin with a fun activity. Work with your partner, draw a plant and colour it. Then, ask your partner to label different parts of the plant.

Kinaesthetic

Work with your partner. Draw a plant and colour it. Then, ask your partner to label the different parts of the plant.

61

(Give the students time to complete the activity.)

Teacher: Observe your drawing carefully and discuss with your partner why each part is important.

(Let the students discuss the drawing.)

Teacher: Well done. Now, let us move to the next part of our lesson.

Auditory

Teacher: Now, let us use our listening skills. Listen carefully, as I will ask questions based on what I say. I want you to pay attention to every detail. Ready?

MUST DO

10 MIN.

Auditory*

Listen to your teacher carefully. Answer the questions.

61

Teacher: In a colourful garden, a little girl named Tara loved to explore plants. One day, she learned about the parts of a plant. The roots were like strong hands, holding the plant tight in the soil. The stem stood tall like a friend, helping the plant reach for the sky. Tara looked at the leaves, which were like little green fans, soaking up sunlight to make food.

1. What do the roots do for the plant?
2. Why are leaves important for a plant?

(Ask questions, allowing students to respond.)

Teacher: Brilliant responses. You were all listening very carefully. Now, let us move to our next activity.

Pictorial

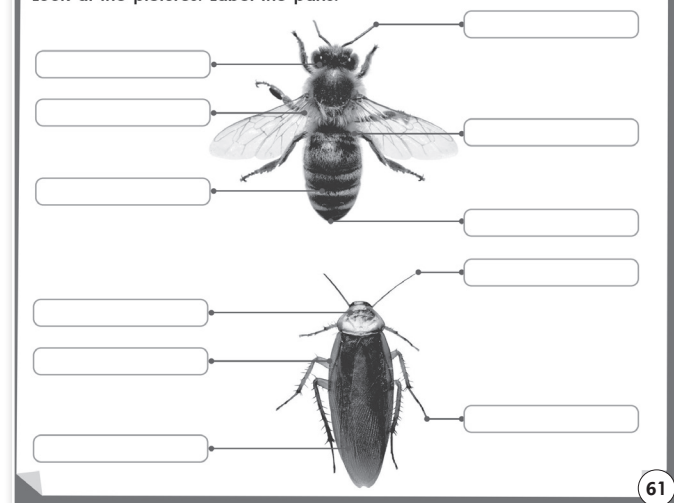
Teacher: Look at the pictures in your book. You can see a honeybee and a cockroach. Each of these insects has different parts. Your task is to label the body parts of both insects.

MUST DO

10 MIN.

Pictorial PS

Look at the pictures. Label the parts.



61

Teacher: Take a close look at their wings, legs and antennae. Label each part in the correct place.

Teacher: Fantastic. Now, let us check our understanding further.

Differentiated Activities

110 km/hr



What is the function of the antennae in insects?

80 km/hr



Name any two body parts of a honeybee.

40 km/hr



What helps the cockroach to sense its surroundings?

Home Task

Observe an insect in your surroundings and draw it in your notebook. Label its parts and write one function of any two body parts.

Period 2

Teacher: Good morning, students. How are you all today?

Teacher: Great. Let us do a quick activity. Ready?

Interacting better

Teacher: Yes. Turn to your partner and ask them to name some domestic animals.

MUST DO

10 MIN.



Interacting better

Ask your partner to name some domestic animals?

ICL

62

Teacher: Listen carefully to their answers and try to think of more examples together.

(Let the students discuss with their partners.)

(Use CRM sign to settle the class.)

Teacher: Great discussion. You have all shared some wonderful ideas.



62

Teacher: Today, we will explore a picture story about Maria and her father visiting a botanical garden. I

MUST DO

30 MIN.

want you to look at the pictures carefully, read the text and observe what Maria is learning. Pay attention to the details—what she sees, what she asks and how her father responds. Take your time to understand each scene. (Pause while students read the picture story)

Teacher: Great. Now, let us discuss the story. What did Maria notice when she entered the botanical garden?

Teacher: That is a lovely observation. Maria saw many different plants and animals in the garden. Her father appreciated her curiosity and shared that our country is rich in flora and fauna.

Teacher: Why do you think India has such a rich variety of flora and fauna? Think about the different climates and regions in our country.

Teacher: Well said. India's diverse weather, landforms and regions help many plants and animals to live and grow here. That is why we find so many different kinds of life across the country.

Teacher: Now, Maria and her father talk about marigolds. What type of soil is best for growing marigolds and why?

Teacher: Wonderful answer. Maria admired the marigolds, and her father told her that loamy soil is best for growing them. It is rich in nutrients and holds water well, helping the flowers grow healthy and strong.

Teacher: Great observations. Maria also noticed something near the water. What did she see and what question did she ask her father?

Teacher: That is right. Maria saw ducks swimming and was curious about the different types of birds in India. Her father explained that our country is home to many kinds of birds, each adding to our biodiversity.

Teacher: Now, let us think a little deeper. How do plants and animals shape India's history, culture and wealth? Reflect on what Maria's father explained.


Teacher: Excellent thoughts. Plants and animals are not only part of our environment but have also helped shape our culture, traditions, and economy. They play an important role in our festivals, stories, and even in how people make a living.

Teacher: Fantastic responses. You have understood the story well.


 You may show the **Dictionary** and **eBook** on the digital platform.

Differentiated Activities

110 km/hr

 Why does India have such a rich variety of flora and fauna? Give two examples of plants or animals unique to specific regions in India.

80 km/hr

 What type of soil is best for growing marigolds?

40 km/hr



Name one factor that affects plant growth.

Home Task

Write down one way in which plants are important to India's culture. Then, name one plant that is commonly used in Indian traditions and explain its significance.

Period 3

Teacher: Good morning, students. How are you all today?

SHOULD DO

5 MIN.



Teacher: Great. Let us begin today's lesson with a quick game. I will ask some questions and you have to answer them. Ready?

Teacher: Which part of a plant helps in absorbing water? (Roots)

Teacher: What do leaves prepare for the plant? (Food)

Teacher: Which insect has two pairs of wings and helps in pollination? (Bee)

Teacher: What do we call the hard outer covering of a cockroach? (Exoskeleton)

Teacher: Which part of the plant turns into a fruit? (Flower)

Teacher: Well done, everyone. Now, let us start today's lesson.

(The teacher will read the first four paragraphs of page 63 aloud and provide explanations to ensure that the students understand the content.)

Teacher: Let us begin by understanding two important terms—flora and fauna. Who can tell me what plant life on Earth is called?

MUST DO

10 MIN.



Teacher: Well done. Plant life on Earth is called flora. Now, what do we call animal life?

WHAT ARE FLORA AND FAUNA?

Plant life on the Earth is known as flora and animal life is called fauna.

FLORA OF INDIA

India has a wide variety of climates and habitats. As a result, it has one of the richest floras in the world. More than 46,000 species of plants are present in India.

63

Teacher: Excellent thinking. Animal life is known as fauna. Now, let us talk about the flora of India. India has a wide variety of climates and habitats. What do you think this leads to?

Teacher: Absolutely. It results in a rich variety of plants. The different climates allow many plant species to thrive. Can you guess how many species of plants are found in India?

Teacher: Impressive answer. More than 46,000 species of plants grow in India, making its flora one of the richest in the world. Now, let us take a closer look at some specific regions.

Teacher: Now, let us explore the flora in the mountains. What kind of trees do you think grow in mountain regions?

MUST DO

10 MIN.



Flora in the mountains

Trees, such as pine, spruce and maple, are found in the mountain areas.



63

Teacher: Very good. Trees like pine, spruce and maple are commonly found in the mountains. Look at this picture. Can you identify the tree shown in the picture?

Teacher: Fantastic. This is a pine tree. Why do you think trees like pine grow well in the mountains?

Teacher: That is correct. They can survive in cold temperatures and at high altitudes. Now, let us look at another region—the plains.

Teacher: Most areas in the plains are covered with different types of grasses and trees. Can you name some trees that grow in the plains?

MUST DO

15 MIN.



Flora on the plains

Most of the areas in the plains are covered with different types of grasses and trees, such as cedar, fir and deodar. We can also see flowering plants, such as sunflowers and asters, in plains.

63

Teacher: Well done. Cedar, fir and deodar are commonly found in the plains. Look at the picture given near the paragraph of flora on the plains. What tree do you see here?

Teacher: Very good. This is a cedar tree. Apart from trees, do we also see flowering plants in the plains?

Teacher: That is right. The plains have many flowering plants as well. Can you name some of them?

Teacher: Fantastic. Sunflowers and asters are some of the flowering plants that grow in the plains. Now that we have explored the flora in different regions, let us move on to some activities.

Differentiated Activities

110 km/hr



What is the main reason for India having such a rich variety of flora?

80 km/hr



Name two trees found in the mountains and two found in the plains.

40 km/hr



What do we call plant life on Earth?

Home Task

Write down one reason why pine trees grow well in mountains. Then, name one flowering plant that grows in the plains and describe its appearance.

Period 4

Teacher: Good morning, students. How are you all today?

Teacher: Great. Let us begin today's lesson with a quick game. I will ask

SHOULD DO

5 MIN.

some questions and you have to answer them. Ready?

Teacher: What do we call animal life on Earth? (Fauna)

Teacher: How many species of plants are found in India? (More than 46,000)

Teacher: Name one tree that grows in the mountains. (Pine/Spruce/Maple)

Teacher: Which type of trees, apart from cedar, grow in the plains? (Fir/Deodar)

Teacher: What are two flowering plants found in the plains? (Sunflowers, Asters)

Teacher: Well done, everyone. Now, let us start today's lesson.

(The teacher will read the fifth and sixth paragraphs of page 63 aloud and provide explanations to ensure that the students understand the content.)

Teacher: Let us begin by exploring the flora found in coastal plains. Can you think of some plants that might grow in these areas?

MUST DO

15 MIN.

Flora on coastal plains

Coastal plains have plants, such as lupine and horsetail. Trees, such as oak and magnolia, are found here. Some non-flowering plants, such as ferns and mosses, are also found in these areas.



lupine plants

63

Teacher: Well done. Coastal plains have plants such as lupine and horsetail. What about trees? Which trees do you think are commonly found in these regions?

Teacher: Excellent answer. Oak and Magnolia trees grow in coastal plains. Apart from flowering plants, do you think there are any non-flowering plants found here?

Teacher: That is absolutely right. Non-flowering plants such as ferns and mosses also grow in coastal plains. Now, let us move on to the desert region.

Teacher: Deserts have very different conditions compared to coastal plains. What is one major challenge for plants growing in deserts?

MUST DO

10 MIN.



agave plants

Flora in the deserts

Due to the lack of water and fertile soil, the desert area has vegetation that is drought-resistant. Some examples of flora found in these regions are cactus and agave.

63

Teacher: Well said. The lack of water and fertile soil makes it difficult for most plants to grow in deserts. So, what kind of vegetation do you think is found in deserts?

Teacher: That is correct. Desert plants are drought-resistant, meaning they can survive with very little water. Can you name some examples of plants found in deserts?

Teacher: Fantastic. Cactus and agave are two plants that can survive in the desert. These plants store water in their stems, helping them thrive in such dry conditions. Now, let us check our understanding with an activity.

Understanding better

Teacher: Let us now reflect on what we have learned. If I say, 'Flora refers to the plants of any region,' is this statement true or false?

MUST DO

10 MIN.

Teacher: Well done. That is true. Now, think about this—'Trees such as pine and spruce are found in the plains.' Is this statement correct?

Teacher: Great observation. That statement is false. Pine, spruce and maple grow in mountain regions, not the plains. Now, let us explore some more questions together.



You may show the **I Explain** on the digital platform.

Understanding better

Say yes or no.

1. Flora refers to the plants of any region.
2. Trees such as pine, spruce are found in the plains.

63

Differentiated Activities

110 km/hr



Which type of plants can survive with very little water in the desert?

80 km/hr



Name one tree found in the coastal plains.

40 km/hr



What do we call the plants found in a particular region?

Home Task

Write down one feature that helps desert plants survive in dry conditions. Then, name one non-flowering plant found in the coastal plains.

Period 5

Teacher: Good morning, students. How are you all today?

SHOULD DO

5 MIN.

Teacher: Great. Let us begin today's lesson with a quick game. I will ask some questions and you have to answer them. Ready?

Teacher: What type of soil is found in the desert? (Sandy soil)

Teacher: Name two flowering plants that grow in coastal plains. (Lupine, Horsetail)

Teacher: What kinds of plants are ferns and mosses? (Non-flowering plants)

Teacher: Which plant found in deserts stores water in its stem? (Cactus)

Teacher: What is one reason why plants in coastal plains can grow well? (Presence of moisture)

Teacher: Well done, everyone. Now, let us start today's lesson.

(The teacher will read the seventh and eighth paragraphs of page 63 and the first paragraph of page 64 aloud and

provide explanations to ensure that the students understand the content.)

Teacher: Today, we will learn about the fauna of India. Who can tell me what fauna refers to?

MUST DO

10 MIN.

FAUNA OF INDIA

India has over 1,300 species of birds and over 90,000 species of animals.

63

Teacher: Well done. Fauna refers to animal life. India has a rich variety of animal species. Can you guess how many species of birds are found in India?

Teacher: That is correct. India has over 1,300 species of birds. Now, what about the number of animal species?

Teacher: Excellent. There are over 90,000 species of animals in India. With such a great variety, let us explore the animals found in different regions.

Teacher: Let us start with the animals that live in mountainous regions. What do you think some of these animals might be?

MUST DO

10 MIN.

Animals on mountains

Animals found in these regions are snow leopard, bighorn sheep, and chamois among others. Birds such as the Himalayan quail, Himalayan monal, satyr tragopan,



bighorn sheep

63

black-headed jay can also be seen in the mountain regions.

64

Teacher: Very good. Some of the animals found in mountain regions include the snow leopard, bighorn sheep and chamois. Birds also live in these regions. Can you name any birds that might be found in the mountains?

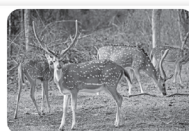
Teacher: Well done. Birds such as the Himalayan quail, Himalayan monal and satyr tragopan are found in these regions. Look at this picture. Can you name the animal shown here?

Teacher: That is right. This is a bighorn sheep. Another bird found in mountain regions is the black-headed jay. Now, let us move on to animals found in the plains.

Teacher: Plains are very different from mountains. Most of the animals living in the plains are herbivores. Can you think of some herbivorous animals?

MUST DO

15 MIN.



deer

Animals on the plains

Most of the animals that live on the plains are herbivores, such as bison, deer and elk. Such animals, especially

bison, move in large groups called herds. Birds, such as the yellow-headed blackbird and chestnut-collared longspur, are also found in the plains.



yellow-headed blackbird

64

Teacher: Great. Animals such as bison, deer and elk are herbivores found in the plains. How do bison move in the plains?

Teacher: Correct. They move in large groups called herds. Now, let us talk about birds found in the plains. Can you name any?

Teacher: Well done. Birds such as the yellow-headed blackbird and the chestnut-collared longspur are found in the plains. Look at this picture. What bird do you see here?

Teacher: Excellent. This is a yellow-headed blackbird. Now that we have explored the fauna of different regions, let us move on to some activities.

Differentiated Activities

110 km/hr



Name two birds found in the mountains and two birds found in the plains.

80 km/hr



What is a group of bison called?

40 km/hr



How many species of birds are found in India?

Home Task

Write down one reason why herbivorous animals, such as deer and bison, live in the plains. Then, name one bird found in the mountains and describe its appearance.

Period 6

Teacher: Good morning, students. How are you all today?

Teacher: Great. Let us begin today's lesson with a quick game. I will ask some questions and you have to answer them. Ready?

SHOULD DO

5 MIN.



Teacher: Which part of the plant helps it stand upright and carry water to other parts? (Stem)

Teacher: Name one insect with antennae that helps it sense its surroundings. (Cockroach/Honeybee)

Teacher: Which plant found in the desert has thick stems to store water? (Agave)

Teacher: Name the bird found in the mountains that has beautiful, colourful feathers. (Himalayan monal)

Teacher: Which plant, found in the coastal plains, does not produce flowers? (Fern or Moss)

Teacher: Excellent responses, everyone. Now, let us begin today's lesson.

(The teacher will read the second and third paragraphs of page 64 aloud and provide explanations to ensure that the students understand the content.)

Teacher: What are some marine animals found in Indian waters?

MUST DO

15 MIN.



Teacher: That is correct. Whales, seals, walrus and dolphins are some of them.



dolphin

Animals in Indian waters

Marine animals, such as whales, seals, walrus and dolphins, are found in the Indian waters. These animals have blubber under the skin which helps them survive the cold water. Fishes, seals, and dolphins also live in the oceans. They can filter the saltwater in their lungs; hence can survive easily in the ocean water. We can also see snails, worms, turtles and beavers in the Indian waters.

64

Teacher: How do these animals survive in cold water?

Teacher: Excellent. They have blubber under their skin, which keeps them warm.

Teacher: What special feature allows fishes, seals and dolphins to survive in ocean water?

Teacher: Yes, they can filter saltwater in their lungs, which helps them live in the ocean.

Teacher: Apart from large marine animals, what other creatures can be found in Indian waters?

Teacher: Great answer. Snails, worms, turtles and beavers are also found in these waters.

Teacher: Well done, everyone. Now, let us move to the next section.

Teacher: Which animals are commonly found in the Thar Desert?

MUST DO

10 MIN.



Animals in the deserts

Animals, such as blackbuck, desert fox and Indian gazelle, are found in the Thar desert. Birds, such as harriers, falcons, kestrels and vultures, are also found in the Thar desert.



blackbuck

64

Teacher: That is right. Blackbuck, desert fox and Indian gazelle are some of them.

Teacher: What kinds of birds are found in desert regions?

Teacher: Excellent. Harriers, falcons, kestrels and vultures live in the Thar Desert.

Teacher: Why do you think these birds are suited for desert life?

Teacher: Great response. Birds like vultures and kestrels are scavengers and hunters, which helps them survive in dry regions.

Teacher: Wonderful discussion. Now, let us check our understanding.

Understanding better

Teacher: Let us complete the 'Understanding better' activity given on page 64 of the Main Course Book. I will read out some statements and you will answer yes or no.

MUST DO

5 MIN.



Understanding better

Say yes or no.

1. Yellow-headed blackbird are found in the mountains.

2. Dolphins are found in the deserts.

ICT

64

Teacher: The yellow-headed blackbird is found in the mountains.

Teacher: Yes, this is incorrect. The yellow-headed blackbird is found in the plains, not the mountains.

Teacher: Dolphins are found in the deserts.

Teacher: Yes, this is incorrect. Dolphins live in the ocean, not in the desert.


Teacher: Great discussion, everyone.

Poster

Teacher: Let us take a moment to look at the poster on the wall.

(Please display and discuss the posters prominently in the classroom to reinforce the learning about the Flora and Fauna of India. Encourage students to observe the posters and discuss the different types of Flora and Fauna of India.)

Teacher: Great observations, everybody.

 You may show the **Animation** and **Concept Map** on the digital platform.

Differentiated Activities

110 km/hr



Which special feature helps marine animals survive in cold waters?

80 km/hr



Name one animal found in the Thar Desert.

40 km/hr



Where do dolphins live?

Home Task

Name one animal that lives in the desert and one that lives in the ocean. Write the feature that helps them survive in their habitat. Bring your observations to class for discussion.

Period 7

Teacher: Good morning, students. How are you all today?

Teacher: Let us begin today's lesson with a quick game. I will ask some questions and you have to answer them.

SHOULD DO

5 MIN.



Teacher: What do we call the animal life found in a particular region? (Fauna)

Teacher: How many species of animals are found in India? (Over 90,000)

Teacher: Name one animal found in the mountains. (Snow leopard/Bighorn sheep/Chamois)

Teacher: What is the name of the bird with a yellow head found in the plains? (Yellow-headed blackbird)

Teacher: What do we call a group of bison moving together? (Herd)

Teacher: Well done, everyone. Now, let us start today's lesson.

Connecting better

MUST DO

10 MIN.



Teacher: Open your books and read the passage under 'Connecting better' given on page 64 of your Main Course Book.

Teacher: Why do we see different kinds of plants and animals in India?

Teacher: Yes. India's climate varies greatly, affecting plant and animal life.

Teacher: What does Maria's father explain about India's climate?

Connecting better

Social Studies

Maria and her father are watching a nature show on TV. Maria asks his father, "Baba, why do we see different kinds of plants and animals in India?" Baba answers, "Maria! In India, the climate changes a lot from one place to another. This is why we have a wide range of plant and animal life. For example, in the dry areas like Rajasthan, we see plants like cactus that need very little water and animals like camels that can live without drinking water for days." Maria smiles.

HoLL

64

Teacher: Yes, he tells her that different regions have different climates, leading to diverse life forms.

Teacher: Can you give an example of an adaptation of a plant and an animal found in Rajasthan?

Teacher: That is correct. Cactus need very little water and camels can survive without drinking water for days.

Teacher: Why do camels survive without drinking water for days?

Teacher: Well done. Camels store water in their bodies, making them suited for desert life.

Teacher: How does climate influence the diversity of plant and animal life?

Teacher: Excellent answer. Climate determines what kind of plants and animals can survive in a region.

Teacher: Fantastic discussion. Let us move to the next activity.

Knowing better

Teacher: Now, read the passage under 'Knowing better' about Dr Anwaruddin Choudhary.

Teacher: Who was Dr Anwaruddin Choudhary, and why is he known as the 'Birdman of Assam'?

MUST DO

5 MIN.

☐

Knowing better

KoI

Dr Anwaruddin Choudhary, also known as the 'Birdman of Assam', was an Indian scientist known for his works for the wildlife of India. His achievements include OBC-WildWings Conservation Award, Lifetime Achievement Award and Sanctuary Lifetime Service Award.

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Teacher: That is correct. He was a scientist who worked to conserve wildlife.

Teacher: What were some of his achievements in wildlife conservation?

Teacher: Yes, he received the OBC - WildWings Conservation Award and many others.

Teacher: Why is wildlife conservation important?

Teacher: Absolutely. Protecting wildlife helps maintain ecological balance.

Teacher: Well done. Now, let us discuss how we can help others.

Giving better

Teacher: Many people sleep on the streets during winter without warm clothes. How can we help people who sleep on the streets during winter?

MUST DO

5 MIN.

☐

Giving better

Seva

You see people on the streets sleeping around in your neighbourhood or on a footpath during the winters. Ask an adult to help them by providing blankets and warm clothes that are in good condition but not in use any longer.

65

Teacher: Yes, by providing blankets and warm clothes that are in good condition but not in use.

Teacher: Why is it important to help those in need?

Teacher: That is a thoughtful answer. Small acts of kindness can make a big difference.

Teacher: Can you share any experience where you or someone you know helped a person in need?

Teacher: Great. Helping others makes our world a better place.

Finding better

Teacher: Now, turn to the section 'Finding better' and read the passage about Karnataka's biodiversity.

MUST DO

5 MIN.

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Teacher: What does the passage say about Karnataka's forests?

Finding better

CL

Karnataka has a wide diversity of flora and fauna. Its forest area provides habitat for 10 per cent of the total tiger population of India!

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Teacher: Yes, Karnataka has a great diversity of flora and fauna.

Teacher: How much of India's tiger population is found in Karnataka?

Teacher: That is correct. Ten per cent of India's tigers live in Karnataka's forests.

Teacher: Why are forests important for wildlife?

Teacher: Absolutely. Forests provide shelter and food for animals.

Teacher: What do you think would happen if forests are destroyed?

Teacher: Yes, it would lead to the loss of wildlife and imbalance in nature. Now, let us explore how nature provides remedies.

Healing better

Teacher: Read the passage under 'Healing better' about Mahua flowers.

Teacher: What are Mahua flowers used for?

Teacher: That is right. They are used to treat eye, skin and heart diseases.

Teacher: How can plants be beneficial for health?

Teacher: Yes, many plants have medicinal properties that help cure diseases.

Teacher: Can you name any other plant that is used as medicine?

Teacher: Well done. Tulsi and neem are also known for their healing properties.

Teacher: Why do you think traditional knowledge about plants is important?

Teacher: That is a wonderful point. Traditional medicine is based on natural remedies passed down through generations.

Laughing better

Teacher: Why do tigers not play hide and seek?

MUST DO

5 MIN.

☐

Healing better

KoI

Mahua flowers are useful in treating eye, skin and heart diseases.

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Teacher: That is right. They are always spotted.



Teacher: What is the answer to the joke?

Teacher: Yes, it is because their striped fur makes them visible.

Teacher: Wonderful. Now, let us move to the differentiated activities.

 You may show the **Slideshow** and **Animated Activities** on the digital platform.

Differentiated Activities

110 km/hr



What is Dr Anwaruddin Choudhary known as?

80 km/hr



Name one medicinal use of Mahua flowers.

40 km/hr



What do tigers depend on for their habitat?

Home Task

Observe a plant or animal in your surroundings and describe how it is suited to its environment. Write two sentences explaining how it survives in its habitat.

Period 8

Teacher: Good morning, students.
How are you all today?

SHOULD DO

5 MIN.



Teacher: Wonderful. Before we begin today's lesson, let us recall what we learned in the last class. I will ask a few questions, and you will try to answer.

Teacher: What kind of plants grow in dry areas like Rajasthan? (Cactus)

Teacher: Which animal can survive without drinking water for days in the desert? (Camel)

Teacher: Who is known as the 'Birdman of Assam'? (Dr Anwaruddin Choudhary)

Teacher: Which flowers are useful in treating eye, skin and heart diseases? (Mahua flowers)

Teacher: What percentage of India's total tiger population is found in Karnataka's forests? (10 per cent)

Teacher: Great work, everyone. Now, let us begin today's lesson.

Recalling better

Teacher: Today, we will recall what we have learned so far in this chapter. Ready?

Teacher: What do we call the plants and animals found in a specific area?

MUST DO

15 MIN.



Recalling better

CING

- Plants and animals of an area are called flora and fauna, respectively.
- Flora found in mountains are pine and spruce. Fauna found in mountain regions are chamois, Himalayan quail and Himalayan monal.
- Flora found in plains are cedar and fir. Fauna found in plains are bison, deer and yellow-headed blackbird.
- Flora found in deserts are cactus and agave. Fauna found in deserts are Indian gazelles, vultures and kestrels.
- Flora found in coastal plains are ferns and mosses. Fauna found in Indian waters are whale and seals.

65

Teacher: That is correct. The plants are called flora and the animals are called fauna.

Teacher: Give some examples of flora found in the mountains.

Teacher: Yes, pine and spruce are common mountain plants. Well remembered.

Teacher: Can you name some animals found in the mountain regions?

Teacher: Excellent. Chamois, Himalayan quail and the Himalayan monal are all found in these regions.

Teacher: What types of flora grow in the plains?

Teacher: That is right. Cedar and fir are commonly found in the plains.

Teacher: Which animals are found in the plains?

Teacher: Well done. Bison, deer and the yellow-headed blackbird are all examples of fauna in the plains.

Teacher: Now, let us talk about deserts. What kind of plants are found in deserts?

Teacher: Exactly. Cactus and agave are well adapted to desert life.

Teacher: Can you name some animals found in the deserts?

Teacher: Great answer. Indian gazelles, vultures and kestrels are some of the animals found in deserts.

Teacher: What plants grow in coastal plains?

Teacher: Yes, ferns and mosses are found in coastal areas.

Teacher: Which animals live in Indian waters?

Teacher: That is correct. Whales and seals are commonly found in Indian waters.

Teacher: Fantastic responses, everyone. You have recalled the information very well. Now, let us move on to our next activity.

Learning better

Teacher: Everyone please open page 65 of your Main Course Book.

In Exercise 'A' of 'Learning better' you have to tick the correct answer. Are you ready to get started?

MUST DO

10 MIN.



Learning better CBA

A Tick (✓) the correct answer.

- Flora refers to the _____ life of a place.

a. human	<input type="checkbox"/>	b. plant	<input type="checkbox"/>
c. animal	<input type="checkbox"/>		
- Sunflowers are found on/in the _____.

a. desert	<input type="checkbox"/>	b. plains	<input type="checkbox"/>
c. mountains	<input type="checkbox"/>		
- Chamois is found on the _____.

a. oceans	<input type="checkbox"/>	b. plains	<input type="checkbox"/>
c. mountains	<input type="checkbox"/>		
- The Indian gazelle is found on the _____.

a. deserts	<input type="checkbox"/>	b. plains	<input type="checkbox"/>
c. mountains	<input type="checkbox"/>		
- Beavers are found on the _____.

a. deserts	<input type="checkbox"/>	b. plains	<input type="checkbox"/>
c. Indian waters	<input type="checkbox"/>		

65

Teacher: Great. Let us begin with the first question. Flora refers to the _____ life of a place.

Teacher: The correct answer is plant. Well done.

(Similarly complete all five questions. And discuss the correct answers.)

Teacher: Let us start Exercise 'B' of the 'Learning better' section, you have to write either true or false in the space provided. Are you ready to get started?

MUST DO

10 MIN.

☐

B Write true or false.

- The term fauna is used for the animal population of a place. _____
- Cedar trees are found in the mountains of India. _____
- Asters are found on the plains. _____
- Turtle and beavers are found in the deserts. _____
- The Indian gazelle is found in the Indian waters. _____

66

Teacher: Great. Let us begin with the first question. The term fauna is used for the animal population of a place.

Teacher: Yes. It is true.

(Similarly complete all five questions)

(Instruct the students to bring their workbook in their next class.)



You may start the **Quiz** on the digital platform.

Differentiated Activities

110 km/hr



Which animals are found in mountain regions?

80 km/hr



Name one plant found in the plains.

40 km/hr



What do we call the plants in a specific area?

Home Task

Draw and colour a scenic landscape of either a mountain, desert, coastal plain or plain. Include at least one plant and one animal that belongs to the selected habitat. Label them neatly and write one sentence about how they survive in their environment.

Period 9

Teacher: Good morning, students. How are you all today?

Teacher: Wonderful. Before we begin today's lesson, let us play a quick question-and-answer game to recall what we have learned so far. Listen carefully and try to answer.

SHOULD DO

5 MIN.

☐

Teacher: What do we call the animals found in a specific region? (Fauna)

Teacher: Which trees are commonly found in mountain regions? (Pine, Spruce)

Teacher: What type of plant is commonly found in coastal plains? (Ferns, Mosses)

Teacher: Which birds are found in the deserts? (Vultures, Kestrels)

Teacher: Name one animal found in the plains that is known for its speed. (Deer)

Teacher: Excellent responses, everyone. Now, let us begin today's lesson.

Learning better

Teacher: Let us explore some short-answer questions.

Everyone, please open page 66 of your Main Course Book. In Exercise 'C' of the 'Learning better' section, you

MUST DO

10 MIN.

☐

have to write a short answer. Are you ready to get started?

C Write short answers in your notebook.

- What do you mean by flora and fauna?
- Fishes and dolphins can filter the saltwater in their lungs. Where do these animals live?
- Give examples of one animal each that is found in the Indian mountains, plains, waters and the deserts.

66

Teacher: Great. Let us begin with the first question. What do you mean by flora and fauna?

(Students have to write the answers for the given questions in about 40 to 50 words in their notebook. Wait for the students to write the answers.)

(Similarly, complete all three questions and discuss the correct answer with the class.)

Teacher: Let us explore some long-answer questions. In Exercise 'D' of the 'Learning better', you have to write a long answer. Let us begin with the first question. Write about the flora of mountains and coastal plains of India.

MUST DO

10 MIN.

☐

D Write long answers in your notebook.

- Write about the flora of mountains and coastal plains of India.
- Write about the fauna of the deserts and plains of India.

66

(Students have to write the answers for the given questions in about 100 to 150 words in their notebook. Wait for the students to write the answers.)

(Similarly, complete the second question and discuss the correct answer with the class.)

Worksheet 1

Teacher: Let us do some activities from the workbook. Everybody, please open page 35 of your workbook and answer the questions given in worksheet 1.

MUST DO

15 MIN.

☐

Theme 6: How Was Our Country Made?

9. The Plant and Animal Life of India

Worksheet 1

A. Fill in the blanks.

- The plant life of a place is known as the _____.
- The animal life of a place is known as the _____.
- _____ has one of the richest flora on the Earth.
- Nearly _____ species of plants are present in India.
- The flora of India constitutes _____ of the world's flora.

B. Write true or false.

- India has a very narrow variety of climate and habitats. _____
- India has a very small percentage of the total flora of the world. _____
- Trees, such as pine, spruce and maple, are found in the mountain areas. _____

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- Most of the area in plains is covered with grasses and trees. _____
- Cedar, fir and deodar are examples of mountain trees. _____

C. Unscramble the words to find the names of some trees.

- NIPE _____
- RUSPEC _____
- AMPLE _____
- DDEOAR _____
- STARSE _____

35

(Let the students answer the questions on their own. Then discuss the answer by writing the correct answer on the blackboard.)

Differentiated Activities

110 km/hr



What types of flora are found in mountains and coastal plains?

80 km/hr



What do we call the plants and animals found in a specific region?

40 km/hr



Name one tree found in mountain regions.

Home Task

The 'Creating better' activity (Let us make a forest diorama) given on page 66 of the Main Course Book.

Period 10

Teacher: Good morning, students. How are you all today?

Teacher: Wonderful. Before we begin today's lesson, let us play a quick question-answer game to recall what we have learned so far. Listen carefully and try to answer.

Teacher: What helps marine animals survive in cold waters? (Blubber)

Teacher: Name one bird that lives in the desert. (Vulture, Kestrel, Falcon, Harrier)

Teacher: Which animals in the plains move in herds for protection? (Deer, Bison)

Teacher: What do we call the plants found in coastal plains? (Ferns, Mosses)

Teacher: Which adaptation allows dolphins to survive in saltwater? (Filtering saltwater in their lungs)

Teacher: Excellent responses, everyone. Now, let us begin today's lesson.

Thinking better

Teacher: Wonderful. Let us begin with an interesting thinking activity.

MUST DO

5 MIN.

☐

Thinking better

Think and write the answer in your notebook.

What would happen if the animals living in the Thar had thick fur on their bodies?

67

Teacher: What would happen if the animals living in the Thar Desert had thick fur on their bodies?

Teacher: Think carefully about the conditions in the Thar Desert. Write your answer in your notebook in a few sentences.

Teacher: Once you have written your answers, we will share some responses and discuss them together.

Teacher: Excellent thoughts. You all came up with great ideas. Now, let us move on to our next activity.

Choosing better

Teacher: Listen carefully as I read a situation for you.

MUST DO

5 MIN.

☐

Choosing better

Some animals, such as deer, always move in groups or herds. They do so to protect each other from their enemies. Just like deer, we should also help each other and stay together. Out of the given options, choose the value being discussed. Tick (✓) the correct answer.

- Time management
- Unity as strength

67

Teacher: Some animals, such as deer, always move in groups or herds. They do so to protect each other from their enemies. Just like deer, we should also help each other and stay together.

Teacher: Now, think about the value being discussed in this situation. I will give you two choices:

1. Time management
2. Unity as strength

Teacher: Look at the given options and tick the correct answer in your book.

Teacher: Well done, everyone. Helping each other and staying together makes us stronger.

Worksheet 2

Teacher: Let us do some activities from the workbook. Everybody, please open page 36 of your workbook and answer the questions given in worksheet 2.

MUST DO

15 MIN.

Worksheet 2

A. Fill in the blanks.

1. Sunflower and asters are found in _____ of India.
2. Lupine and horsetail are found in _____ of India.
3. Due to lack of _____ resources and _____ soil, the desert area has vegetation that is drought-resistant.
4. Cactus and agave are found in the _____ of India.
5. Ferns and mosses are found in the _____ of India.

B. Write true or false.

1. Indian flora constitutes 11.4 percent of the world's flora. _____
2. India has one of the richest flora in the world. _____

36

3. Lupine and horsetail are found in the Thar. _____
4. Oak and magnolia are found in the coastal plains. _____
5. Desert area has abundant water resources and fertile soil. _____

C. Rearrange the letters to make meaningful words.

1. LOFRA _____
2. UNafa _____
3. ABHITATs _____
4. LANTP _____
5. LOWERSFUSN _____

36

(Let the students answer the questions on their own. Then discuss the answer by writing the correct answer on the blackboard.)

Book of Holistic Teaching

Refer to the Book of Holistic Teaching, page 25 under the title 'The Plant and Animal Life of India.' Complete the activities mentioned in this section and ensure that the students complete them. These activities are designed to enhance their holistic understanding and engagement with the topic. Provide any necessary support and materials to help the students successfully finish the activities.

COULD DO

10 MIN.

Chapter 9: The Plant and Animal Life of India

Theme 6: How Was Our Country Made?

A English

HoLL MDA

Underline the adjectives in the paragraph given below.

In the national park, Khushi is cheerful after seeing the beautiful flowers moving in the wind like they are waving at her. She also sees a sandal tree which has a mesmerising fragrance. The keeper of the park tells her that the wood of the sandal tree is very expensive.

B Maths

Imagine $\frac{2}{5}$ of the total flora in India is covered with flowering plants. Convert the given fraction to decimal form.

C Social Studies

What kind of flora and fauna do the Himalayas have? Give two examples of each.

25

(Instruct the student to bring their Little Book in their next class.)

Differentiated Activities

110 km/hr



Why do deer move in groups or herds?

80 km/hr



What would happen if desert animals had thick fur?

40 km/hr



Name one animal found in the Thar Desert.

Home Task

The Project Idea, given in the book of Project Ideas, page 19 under the title 'The Plant and Animal Life of India.' This project should be assigned to the students as a home task to work on. Ensure that the students understand the project requirements and provide any necessary guidance or materials they might need.

Period 11

Teacher: Good morning, students. How are you all today?

SHOULD DO

5 MIN.

Teacher: Wonderful. Before we begin today's lesson, let us play a quick question-and-answer game to recall what we have learned so far. Listen carefully and try to answer.

Teacher: Which mountain bird is known for its vibrant and colourful feathers? (Himalayan Monal)

Teacher: What feature helps marine animals like seals and whales stay warm in cold waters? (Blubber under their skin)

Teacher: Which types of plants found in coastal plains do not produce flowers? (Ferns or Mosses)

Teacher: Why do animals like bison move in large herds in the plains? (For protection from predators)

Teacher: What role do plants like Tulsi and Neem play in traditional Indian medicine? (They have healing or medicinal properties.)

Teacher: Excellent responses, everyone. Now, let us begin today's lesson.

Revising better

Teacher: What do we call the variety of plants found in India?

MUST DO

5 MIN.

Teacher: That is correct. The flora of India includes a wide range of plant species found in different regions.

Revising better

Revise and write about the flora of India in your Little Book.

DBI

67

Teacher: Now, take a few minutes to revise and write about the flora of India in your Little Book. Think about what you have learned so far.

Teacher: Once you have completed your writing, we will share some answers and discuss them together.

Teacher: Excellent work, everyone. You have recalled the information very well. Now, let us move on to our next activity.

Pledging better

Teacher: Today, we will take a small pledge. Repeat after me:

MUST DO

5 MIN.

'In my own little way, I pledge to plant more trees and take care of them.'

Pledging better

In my own little way, I pledge to plant more trees and take care of them.

SDGs

SDG 15: LIFE ON LAND

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Teacher: This pledge aligns with Sustainable Development Goal 15: Life on Land, which focuses on protecting, restoring and promoting the sustainable use of ecosystems.

Teacher: Well done, everyone. By making this pledge, we are promising to do our part in protecting the environment.

Worksheet 3

Teacher: Let us do some activities from the workbook. Everybody, please open page 37 of your workbook and answer the questions given in worksheet 3.

MUST DO

15 MIN.

Worksheet 3

A. Fill in the blanks.

- India has a total of _____ species of birds.
- India has a total of _____ species of animals.
- Himalayan Monal is found on the _____.
- Yellow-headed blackbird is found on the _____.
- Walrus and seals are found in the _____.

B. Write true or false.

- Bighorn sheep and chamois are found in the Indian plains. _____
- Bison, deer and elk are found in the mountains of India. _____
- Beavers and turtles are found in the Indian waters. _____
- Desert fox is usually found in the Thar. _____
- Chestnut-collared longspur are found in the Indian plains. _____

C. Match the following.

- | | | |
|--------------------------------|---|--------------------|
| 1. chamois | • | a. 2000 |
| 2. bison | • | b. Indian waters |
| 3. total bird species in India | • | c. Indian plains |
| 4. walrus | • | d. Thar |
| 5. falcon | • | e. Indian mountain |

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(Let the students answer the questions on their own. Then discuss the answer by writing the correct answer on the blackboard.)

You may generate additional practice worksheets using the **Test Generator** given on the digital platform.

Book of Project Ideas

Discuss the project assigned as the home task in the tenth period, focusing on helping students understand the objectives and addressing any challenges they face.

COULD DO

5 MIN.

Chapter 9: The Plant and Animal Life of India

Theme 6: How Was Our Country Made?

Make an online presentation by using **ICT PRO 21st CS** the Internet* to show information about flora and fauna of India. Also, choose any five other countries and show information about their flora and fauna.

- Show brief information about flora and fauna of India. For example, you may write about these:
- **Flora:** Banyan tree, Neem tree, Lotus, Bamboo, Indian Rosewood.
- **Fauna:** Bengal Tiger, Indian Elephant, Peacock, Indian Rhinoceros, Snow Leopard
- Choose five countries with diverse ecosystems. For example: Brazil, Australia, Kenya, Canada and Japan. Explain about the different flora and fauna of these countries.
- Show pictures or videos of flora and fauna present in these chosen countries.
- Show interesting facts about the flora and fauna of India and five chosen countries.

67

Teacher: Now, let us complete the 'KWL' activity.

Teacher: Take out your notebook and fill in the 'L' column. Write what have you learned in this chapter.

(Wait for students to fill in the chart.)

SHOULD DO

5 MIN.



Teacher: Let us all give a huge round of applause to everyone for their hard work and creativity. Great work, everyone. See you in the next class. Have a wonderful day ahead.

Differentiated Activities

110 km/hr



Why is the flora of India diverse?

80 km/hr



Which Sustainable Development Goal (SDG) focuses on protecting life on land?

40 km/hr



What do we call the variety of plants found in a region?

Home Task

Draw and colour an animal that lives in the Thar Desert. Write one sentence about how it survives in the desert environment. Bring your artwork to class for discussion.

Learning Outcomes

The students will:

Domain	Learning Outcomes
Physical Development	<ul style="list-style-type: none">• develop fine motor skills by drawing and labelling different plants and animals in India.
Socio-Emotional and Ethical Development	<ul style="list-style-type: none">• understand the importance of preserving flora and fauna and develop a sense of responsibility towards nature.
Cognitive Development	<ul style="list-style-type: none">• identify and classify different types of flora and fauna found in India based on their habitats.
Language and Literacy Development	<ul style="list-style-type: none">• read and comprehend information about flora and fauna and express their understanding through writing activities.
Aesthetic and Cultural Development	<ul style="list-style-type: none">• appreciate the diversity of India's plant and animal life and its role in shaping culture and traditions.
Positive Learning Habits	<ul style="list-style-type: none">• develop curiosity about the environment and engage in discussions and activities that promote environmental awareness.

Starry Knights

How was the learners' response to the wildlife in India? Did you enjoy the class presentations by the learners? Would you like to share some of their responses?

Reward yourself with a STAR.

