Lesson-5: Plant Reproduction

10 Periods (40 minutes each)

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

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

Affirming better
Each day is a new opportunity for growth.

Curricular Goals and Objectives (NCF)

To enable the students:

- to explore different plants, their reproduction and seed structure.
- to understand germination, seed dispersal and vegetative propagation.
- to learn about medicinal herbs like Giloy.
- to document plant growth using a seed calendar and journal.
- to develop critical thinking and practical skills through observation.

Methodology

Period 1

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

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

SHOULD DO — 5 MIN.

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 day with positive energy.

Teacher: Before we start the class, let us all say together, 'Each day is a new opportunity for growth.' Repeat after me: 'Each day is a new opportunity for growth.'

MUST DO — 5 MIN.

Teacher: Alright. Today, we are going to begin a new chapter 'Plants Reproduction.' We use a KWL chart to help us organize 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 'L' columns. Take a few minutes to think and write. If you have any questions, feel free to ask.

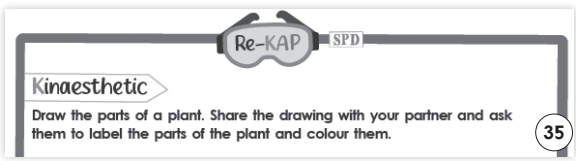
Teacher: Before we start the chapter, we will do a quick Re-KAP, which involves revisiting our previous knowledge through creative activities using Kinaesthetic, Auditory and Pictorial methods to make our learning interactive and engaging, starting with a kinaesthetic activity to get us ready for the new topic.

Kinaesthetic

Teacher: Let us start a Kinaesthetic activity.

Teacher: Today, we are going to do some fun activities to help us understand the parts of a plant. First, let us start with the kinaesthetic activity. I would like you to draw the different parts of a plant. Once you finish, share your drawing with your partner and ask them to label the parts and colour them.

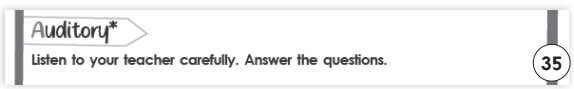
MUST DO — 10 MIN.



(Give time to the students to perform the activity.)

Teacher: Fantastic work, everyone.

Auditory



Teacher: Now, let us move to the auditory activity. I will ask you a few questions and I need you to listen carefully. Are you ready?

MUST DO — 10 MIN.

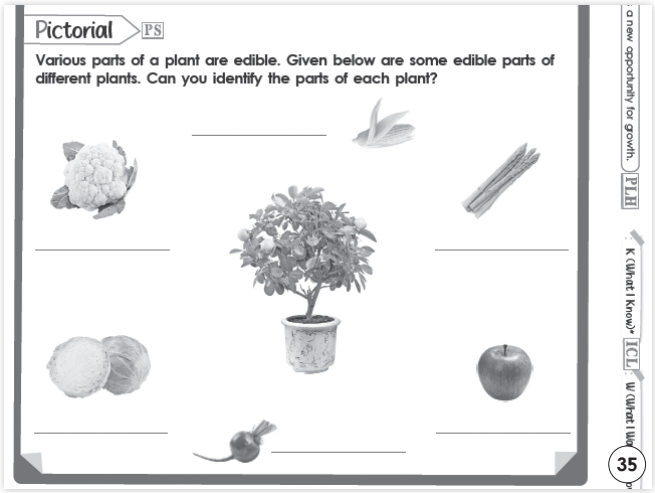
Teacher: Let us start. Plants use air, water and sunlight to prepare their own food by a process called photosynthesis. Plants take in carbon dioxide and give out oxygen to make their food.

1. Name the process by which plants make their food.
2. Which gas is taken in by the plants for their food-making process?

(Wait for students to answer)

Teacher: Great listening. Keep it up.

Pictorial



Teacher: Now, let us move on to the pictorial activity. Look at the pictures on page 35 of your Main Course Book. I would like you to write the names of the parts of each plant.

MUST DO
10 MIN.

(Wait for students to name the part of each plant and discuss the correct answers.)

Teacher: Brilliant. You all did a fantastic work identifying the parts of plants.

Differentiated Activities

110 km/hr

Which part of the plant stores food and helps in vegetative propagation in potatoes?

80 km/hr

Which edible part of the plant is an apple?

40 km/hr

Which part of the plant is a carrot?

Home Task

Look around your kitchen and identify five different vegetables or fruits. Write down their names and classify them based on the part of the plant they belong to (root, stem, leaf, flower, fruit or seed).

Period 2

Interacting better

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

Teacher: Today, we are going to start with an activity called 'Interacting Better'. I would like you to take a moment to think about it and discuss it with your partner: Where do plants get their food from? How do they make it? Talk to your partner and share your ideas.

MUST DO
10 MIN.

(Give time to the students to perform the activity.)

(Use CRM signs to settle the class.)

Teacher: Now, open your Main Course Books to page 36 with a story. I would like you to read it carefully on your own. Take your time and once you finish, we will discuss it together.

MUST DO
30 MIN.

(Give students time to read the animated story quietly.)

Teacher: Great. I can see that you all have read the story. Now, let us discuss a few questions based on what you have learned.

Teacher: What did Ryan enjoy doing during his holiday?

Teacher: That is right. Gardening can be so much fun. What did Ryan learn about plants from Dtaa (his grandfather)?

Teacher: Excellent. Ryan learned about vegetative propagation. Can someone explain what vegetative propagation means?

Teacher: Well done. It is indeed a method where new plants grow from a part of the parent plant other than seeds.

Teacher: Now, think about this – how are we different from plants? Discuss with your partner for a moment and then share your thoughts.

Teacher: Great responses. We can walk, talk and see, unlike plants. However, plants have their own ways of living too. How do plants breathe and reproduce?

Teacher: Fantastic. Plants may not move like us, but they do breathe and reproduce, just like all living things. Well done, everyone. I am so proud of your observations. Let us continue exploring more about plants in our next lesson.

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

Differentiated Activities

110 km/hr

What is the main advantage of vegetative propagation compared to growing plants from seeds?

80 km/hr

Name one plant that can reproduce through vegetative propagation.

40 km/hr

What do plants need to make their food?

Home Task

Observe three different plants in your surroundings and identify whether they reproduce through seeds or vegetative propagation. Write their names and explain how they reproduce in one or two sentences.

Period 3

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

Teacher: Great. Let us begin with a fun rapid-fire round. I will ask quick questions about plants and you have to answer as fast as you can. Are you ready?

SHOULD DO

05 MIN.

Teacher: What is the name of the process by which plants make their food? (Photosynthesis)

Teacher: Which part of the plant takes in carbon dioxide? (Leaves/Stomata)

Teacher: What is the function of roots? (To absorb water and nutrients, and anchor the plant in the soil)

Teacher: What do plants release into the air during photosynthesis? (Oxygen)

Teacher: Give an example of a plant that grows through vegetative propagation. (Potato/Ginger)

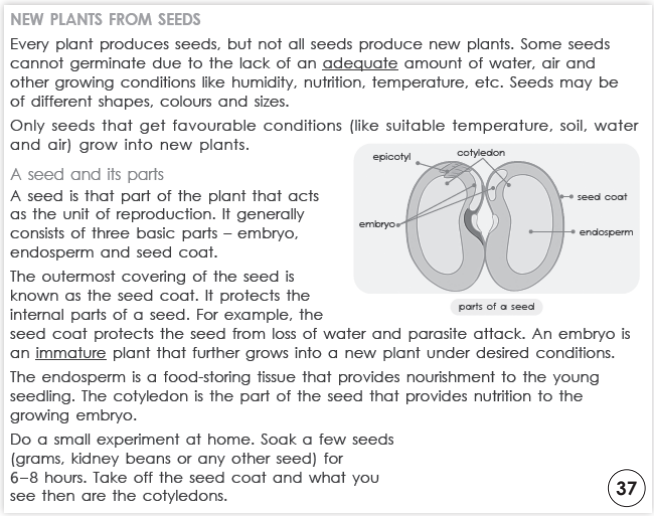
Teacher: Fantastic work, everyone. You all gave quick and correct answers. Now, let us continue with today's lesson.

Teacher: Today, we are going to learn about how new plants grow from seeds.

MUST DO

20 MIN.

(The teacher will read the first four paragraphs of page 37 aloud and provide explanations to ensure that the students understand the content.)



NEW PLANTS FROM SEEDS

Every plant produces seeds, but not all seeds produce new plants. Some seeds cannot germinate due to the lack of an adequate amount of water, air and other growing conditions like humidity, nutrition, temperature, etc. Seeds may be of different shapes, colours and sizes.

Only seeds that get favourable conditions (like suitable temperature, soil, water and air) grow into new plants.

A seed and its parts

A seed is that part of the plant that acts as the unit of reproduction. It generally consists of three basic parts – embryo, endosperm and seed coat.

parts of a seed

The outermost covering of the seed is known as the seed coat. It protects the internal parts of a seed. For example, the seed coat protects the seed from loss of water and parasite attack. An embryo is an immature plant that further grows into a new plant under desired conditions.

The endosperm is a food-storing tissue that provides nourishment to the young seedling. The cotyledon is the part of the seed that provides nutrition to the growing embryo.

Do a small experiment at home. Soak a few seeds (grams, kidney beans or any other seed) for 6–8 hours. Take off the seed coat and what you see then are the cotyledons.

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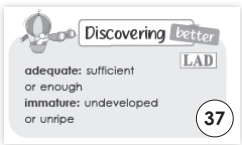
Discovering better

Explain the terms mentioned in the 'Discovering better' activity mentioned on page 37 of the Main Course Book.

Teacher: Have you ever observed seeds closely?

Teacher: Great. Do all seeds grow into new plants?

Teacher: Excellent. Some seeds do not grow into plants. Can you think of reasons why this might happen?



Discovering better

LAD

adequate: sufficient or enough

immature: undeveloped or unripe

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Teacher: Yes, that is correct. Seeds need the right conditions to grow, such as water, air and the right temperature. What happens if these conditions are not available?

Teacher: Well done. Now, can you name some seeds you have seen at home or in the market?

Teacher: Wonderful. Every seed has different parts that help it grow into a plant. Let us focus on these parts. What do you think the different parts might do?

Teacher: Great effort. A seed has three main parts – the embryo, the endosperm and the seed coat. Who can tell me what the seed coat does?

Teacher: That is right. It protects the seed from losing water and from attacks by parasites.

Teacher: Now, let us talk about the embryo. What do you think an embryo does inside the seed? Discuss and share your answers.

Teacher: Fantastic. The embryo is a tiny plant that grows when conditions are right. What about the endosperm? What do you think it provides to the growing plant?

Teacher: Excellent answers. The endosperm stores food for the young plant until it can make its own food. Another important part is the cotyledon. Can you guess what it does?

MUST DO
15 MIN.

Teacher: Very good. The cotyledon provides nutrition to the growing embryo.

Teacher: Now, here is something exciting for you to try at home. Take a few seeds, like grams or kidney beans and soak them in water for six to eight hours. Once they are soaked, carefully remove the seed coat and observe what you find inside.

Teacher: I look forward to hearing about your observations in our next class. Well done, everyone. Keep exploring and learning about the wonderful world of plants.

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

Differentiated Activities

110 km/hr

What is the function of the cotyledon in a seed?

80 km/hr

Which part of the seed protects it from water loss and parasites?

40 km/hr

What does a seed need to grow into a plant?

Home Task

Draw and label the different parts of a seed in your notebook and write one sentence explaining the function of each part.

Period 4

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

Teacher: Great. Today, we are going to play a game called 'Guess the Part of the Plant.' I will describe the function of a plant part and you will guess what it is. Raise your hand if you know the answer. Let us begin.

SHOULD DO
5 MIN.

Teacher: I absorb water and minerals from the soil. Who am I? (Roots)

Teacher: I help the plant stand upright and carry water to the leaves. Who am I? (Stem)

Teacher: I use sunlight to make food for the plant. Who am I? (Leaf)

Teacher: I protect the seed until it is ready to grow. Who am I? (Seed Coat)

Teacher: Fantastic guesses, everyone. Let us give ourselves a big round of applause for all the energy you brought to class.

Teacher: Great. Let us give ourselves a big applause for all the energy you brought to the class.

Teacher: Today, we are going to learn about an exciting topic – seed germination.

MUST DO
20 MIN.

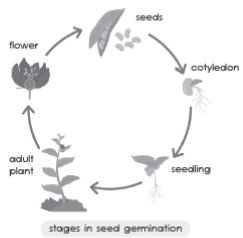
(The teacher will read the last three paragraphs of page 37 and the first four paragraphs of page 38 aloud and provide explanations to ensure that the students understand the content.)

SEED GERMINATION

The growth of a new plant from the embryo present inside the seed is known as seed germination.

Seeds require oxygen from air to produce energy for their growth and germination. Water is essential for the softening of the seed coat, so that the young plant can easily break the coat and come out.

The seed becomes active in the presence of oxygen, sunlight and moisture. Therefore, air, water and sunlight are essential for the development of a germinating seed.



stages in seed germination

Stages of germination

There are five stages of seed germination:

Stage 1: *Imbibition* – A process in which a dry seed absorbs water from the soil and swells up after rehydration.

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Stage 2: *Metabolism* – Upon hydration, metabolic prc enzyme activation (a process in which chemical reac synthesis of cellular respiration* begin. Then, enzymes start to convert stored food into energy.

Stage 3: *Growth initiation* – This energy helps seedlings to grow. The embryo present within the seed develops. When the embryonic root becomes visible, it is the first visible sign of germination.

Stage 4: *Root and shoot* – Roots grow in the downward direction. They take water from the ground. Shoots grow in the upward direction, towards the surface of the soil.

Stage 5: *Establishment of seedling* – As the shoot begins to develop leaves, it shows that the baby plant is now growing into an adult plant.

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Teacher: Take a moment to think – have you ever seen a seed sprouting?

Teacher: Wonderful. What do you think helps a seed to grow?

Teacher: Great. Seeds need certain things to grow. Let us focus on oxygen first. Why do you think seeds need oxygen?

Teacher: Yes, that is correct. Seeds need oxygen to produce energy for their growth. Now, what about water? Why do you think water is important for a seed?

Teacher: Excellent. Water softens the seed coat, making it easier for the young plant to break through. What do you think would happen if a seed did not get enough water?

Teacher: That is right. Without water, the seed coat remains hard and the plant inside cannot come out. Let us talk about sunlight. Why do seeds need sunlight?

Teacher: Fantastic answer. Sunlight helps the seed to grow into a healthy plant. Now, can anyone tell me the three essential things a seed needs to germinate?

Teacher: Well done. A seed needs oxygen, water and sunlight. Let us now imagine a seed that does not get these. What do you think will happen?

Teacher: Exactly. Without the right conditions, a seed cannot grow.

Teacher: Let us go through the stages of seed germination step by step. Who can explain the first stage, 'Imbibition'?

MUST DO
15 MIN.

Teacher: That is right. It is the process where a dry seed absorbs water from the soil and swells up as it rehydrates. What do you think happens next in the 'Metabolism' stage?

Teacher: Good work. During metabolism, the hydrated seed activates enzymes, which help convert stored food into energy for growth. Now, think about the next stage, 'Growth Initiation'. What do you think this energy is used for?

Teacher: Brilliant. This energy helps the embryo inside the seed develop, and the embryonic root becomes the first visible sign of germination. Moving on, can anyone describe what happens in the 'Root and Shoot' stage?

Teacher: Very good. At this stage, the root grows downward to absorb water, while the shoot grows upward toward the surface. Lastly, what do you understand by the stage called 'Establishment of Seedling'?

Teacher: Excellent. As the shoot develops leaves, the baby plant starts growing into an adult plant. You have all done amazing work.

Differentiated Activity

110 km/h

What happens in the metabolism stage of seed germination?

80 km/h

Name the first visible sign of germination.

40 km/h

What does a seed absorb during imbibition?

Home Task

Take a small bowl and soak a few seeds (grams, kidney beans or lentils) in water overnight. Observe the changes, take off the seed coat and write down the different parts you can see inside.

Period 5

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

Teacher: Fantastic. Today, we are going to play 'Guess the Germination Stage.' I will describe what happens at a certain stage of seed germination and you will guess the name of that stage. Let us begin.

SHOULD DO
5 MIN.

Teacher: I am the stage when the seed absorbs water and swells up. Which stage am I? (Imbibition)

Teacher: I am the stage when the seed's stored food starts breaking down into energy. Which stage am I? (Metabolism)

Teacher: I am the stage when the tiny root and shoot begin to emerge from the seed. Which stage am I? (Growth Initiation/Root and Shoot stage)

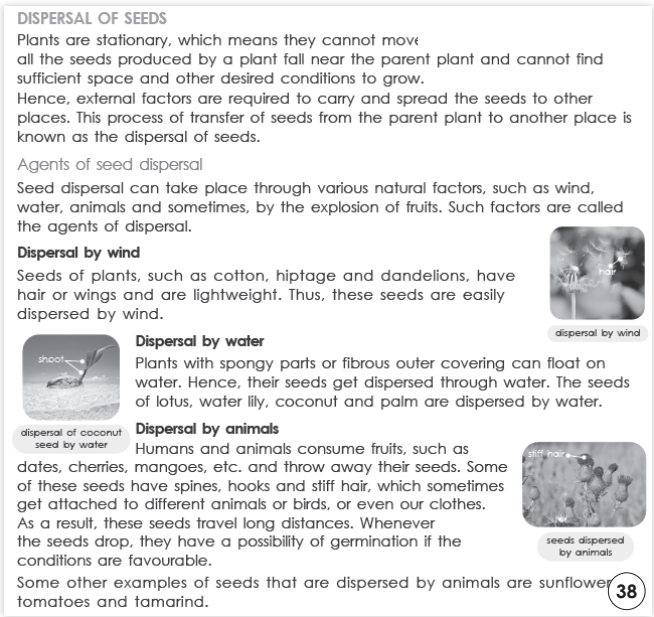
Teacher: I am the stage when the seedling finally becomes stable in the soil with leaves visible above ground. Which stage am I? (Establishment of Seedling)

Teacher: Excellent guesses, everyone. Let us give ourselves a big round of applause for remembering the different stages of seed germination.

Teacher: Great. Let us give ourselves a big applause for all the energy you brought to the class.

Teacher: Today, we will learn about how seeds travel to different places. (The teacher will read the last five paragraphs of page 38 aloud and provide explanations to ensure that the students understand the content.)

MUST DO
15 MIN.



DISPERSAL OF SEEDS

Plants are stationary, which means they cannot move all the seeds produced by a plant fall near the parent plant and cannot find sufficient space and other desired conditions to grow. Hence, external factors are required to carry and spread the seeds to other places. This process of transfer of seeds from the parent plant to another place is known as the dispersal of seeds.

Agents of seed dispersal

Seed dispersal can take place through various natural factors, such as wind, water, animals and sometimes, by the explosion of fruits. Such factors are called the agents of dispersal.

Dispersal by wind

Seeds of plants, such as cotton, hiptage and dandelions, have hair or wings and are lightweight. Thus, these seeds are easily dispersed by wind.

hair

dispersal by wind

shoot

dispersal of coconut seed by water

Dispersal by water

Plants with spongy parts or fibrous outer covering can float on water. Hence, their seeds get dispersed through water. The seeds of lotus, water lily, coconut and palm are dispersed by water.

Dispersal by animals

Humans and animals consume fruits, such as dates, cherries, mangoes, etc. and throw away their seeds. Some of these seeds have spines, hooks and stiff hair, which sometimes get attached to different animals or birds, or even our clothes. As a result, these seeds travel long distances. Whenever the seeds drop, they have a possibility of germination if the conditions are favourable.

stiff hair

seeds dispersed by animals

Some other examples of seeds that are dispersed by animals are sunflower, tomatoes and tamarind.

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Teacher: Since plants cannot move, how do you think their seeds spread to different places?

Teacher: Excellent ideas. The process of spreading seeds from the parent plant to new places is called seed dispersal. Let us explore more about it.

Teacher: There are different agents that help in seed dispersal. Who can explain how wind helps in seed dispersal?

MUST DO
10 MIN.

Teacher: That is correct. Seeds of cotton and dandelions have hair or wings, making them lightweight and easy to be carried by the wind.

Teacher: Now, let us talk about dispersal by water. What

kind of seeds do you think can float on water?

Teacher: Well done. Seeds of lotus, water lily and coconut can float because they have spongy or fibrous outer coverings.

Teacher: Moving on to dispersal by animals. How do animals help in spreading seeds?

MUST DO
10 MIN.

Teacher: Great answer. Some seeds have hooks or spines that attach to animals, while others are eaten and later dropped in different places.

Teacher: Can anyone name some seeds dispersed by animals?

Teacher: Fantastic. Dates, cherries and mangoes are great examples.

Teacher: Now, let us do an activity. I would like you to list down different ways seeds are dispersed and match them with examples from your daily life.

(Give time to the students to complete the activity.)

Teacher: Excellent teamwork. Let us now discuss what you found.

(Discuss the activity with the class.)

You may show the **Animation** on the digital platform.

Differentiated Activity

110 km/h

Which agent disperse the Sunflower seed?

80 km/h

Give an example of a seed dispersed by wind.

40 km/h

Name one factor that helps in seed dispersal.

Home Task

Look around your surroundings and collect different types of seeds. Observe their shapes and sizes. Based on their appearance, predict how they might be dispersed – by wind, water or animals. Write your observations in your notebook and bring them to class for discussion.

Period 6

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

Teacher: Fantastic. Now, let us play a quick game called 'I Spy a Seed Essential.' I will say 'I spy…' and give a clue about something seeds need to grow. You must guess what it is. Ready?

SHOULD DO
5 MIN.

Teacher: I spy something that seeds absorb to swell and break open the seed coat. (Water)

Teacher: I spy a gas that seeds need for energy during germination. (Oxygen)

Teacher: I spy a form of energy that helps a new plant produce its own food after sprouting. (Sunlight)

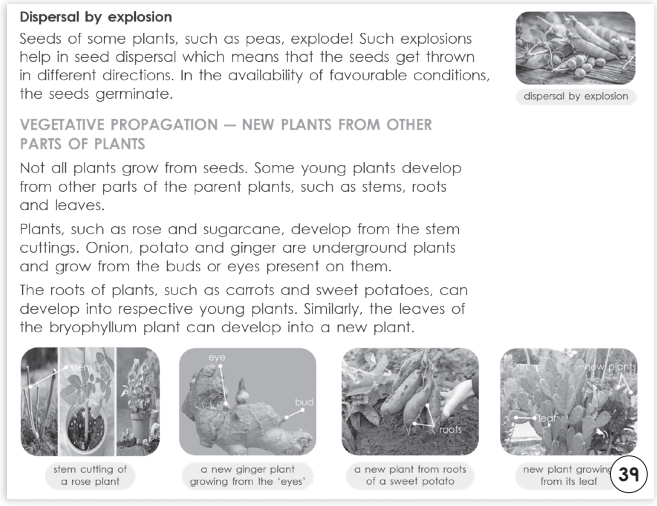
Teacher: I spy something seeds do not like if it is too low or too high because it stops growth. (Temperature)

Teacher: Wonderful answers. Water, oxygen, sunlight and the right temperature are all crucial for seed germination. Let us give ourselves a big applause for all the energy you brought to the class.

Teacher: Today, we will start by learning about dispersal by explosion.

MUST DO
15 MIN.

(The teacher will read the first four paragraphs of page 39 aloud and provide explanations to ensure that the students understand the content.)



Dispersal by explosion

Seeds of some plants, such as peas, explode! Such explosions help in seed dispersal which means that the seeds get thrown in different directions. In the availability of favourable conditions, the seeds germinate.

dispersal by explosion

VEGETATIVE PROPAGATION — NEW PLANTS FROM OTHER PARTS OF PLANTS

Not all plants grow from seeds. Some young plants develop from other parts of the parent plants, such as stems, roots and leaves.

Plants, such as rose and sugarcane, develop from the stem cuttings. Onion, potato and ginger are underground plants and grow from the buds or eyes present on them.

The roots of plants, such as carrots and sweet potatoes, can develop into respective young plants. Similarly, the leaves of the bryophyllum plant can develop into a new plant.

stem cutting of a rose plant | a new ginger plant growing from the 'eyes' | a new plant from roots of a sweet potato | new plant growing from its leaf

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Teacher: Have you ever seen peas scatter when a pod bursts open?

Teacher: Yes, that is exactly what happens in nature. Some plants, like peas, burst open when their seeds are mature, helping them spread far and wide. Why do you think this helps the plant?

Teacher: Exactly. When the seeds land in a suitable environment, they germinate and grow into new plants. Now, can anyone tell me how plants grow besides seed dispersal?

Teacher: Yes, many plants grow from seeds, but do you think all plants grow only from seeds?

Teacher: You are right. Today, we are going to explore another way plants grow. It is called vegetative propagation. Does anyone know what this means?

Teacher: It is when new plants grow from different parts of a parent plant, such as stems, roots or leaves. Let us find out more.

MUST DO
10 MIN.

Teacher: First, let us talk about stems. Some plants, like rose and sugarcane, grow from stem cuttings. What do you think happens when you plant a stem cutting in the soil?

Teacher: That is correct. Now, look at onions, potatoes and ginger. These plants grow underground. What do you notice on a potato?

Teacher: Exactly. Those eyes or buds help the plant grow

into a new one. Let us move to another part of plants – **roots**. Can anyone name a vegetable that grows from roots?

Teacher: Yes. The roots of these plants develop into new ones. Now, let us look at leaves. Have you ever seen tiny plants growing from the edge of a leaf?

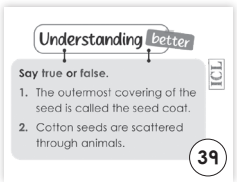
Teacher: Yes, the bryophyllum plant. Its leaves grow into new plants when placed in the soil.

Understanding better

Teacher: Let us do the understanding better activity given on page 39.

MUST DO
5 MIN.

Teacher: I shall read out the two statements and you will say whether you think it is true or false. Here is the first one: 'The outermost covering of the seed is called the seed coat.'



Teacher: If you said 'true,' you are correct. Well done. Now, here is the second statement: 'Cotton seeds are scattered through animals.'

Teacher: If you said 'false,' you are correct. Wonderful. Great discussion, everyone.

Poster

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

(Please display the posters prominently in the classroom to reinforce the learning about different stages of vegetative propagation and seed germination. Encourage students to observe the posters and discuss the different stages of vegetative propagation and seed germination.)

MUST DO
5 MIN.

You may show the **Slideshow** on the digital platform.

Differentiated Activity

110 km/h

What is the method of seed dispersal in peas?

80 km/h

Which part of the plant helps sugarcane grow?

40 km/h

What plant has leaves that grow into new plants?

Home Task

Find a plant at home that grows from its stem, roots or leaves. Draw and label its parts. Write a short paragraph explaining how it propagates.

Period 7

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

Teacher: Fantastic. Now, let us play a quick game. I will describe a plant and you will tell me which part helps it grow into a new one. Ready?

SHOULD DO
5 MIN.

Teacher: This plant has eyes and you often eat it mashed or fried. (Potato)

Teacher: Correct. This plant has long roots and people enjoy eating it in soups or raw in salads. (Carrot)

Teacher: Well done. This plant can grow from a small cutting of its stem and is used to make sugar. (Sugarcane)

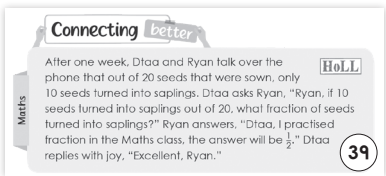
Teacher: Fantastic. Now, let us try one last one. This plant's seeds burst open when they are mature, spreading in different directions. (Peas)

Teacher: Wonderful. Let us give ourselves a big applause for all the energy you brought to the class.

Connecting better

Teacher: We shall begin with 'Connecting Better.' Let us look at a brief scenario about Dtaa and Ryan. They planted twenty seeds and only ten turned into saplings. Dtaa asked Ryan, 'If ten seeds turned into saplings out of twenty, what fraction is that?' Ryan replied, 'I practised fractions in Mathematics class, so the answer must be one-half.' Dtaa exclaimed, 'Excellent, Ryan.'

MUST DO
10 MIN.



Teacher: Please read this scenario and reflect on how they found that fraction. Think quietly for a moment, then share with a partner what fraction you see and why it is one-half. You may also give another example from your own experiences where you have come across fractions in everyday life.

Teacher: After your discussion, we shall hear a few thoughts. You may explain how you approached the idea of half and whether you know of any other real-life situations where halves are helpful.

Laughing better

Teacher: Next, let us look at 'Laughing Better.' You will see a riddle: 'How did the tree make so many friends?'

MUST DO
5 MIN.

Teacher: The answer is, 'It branched out.' Please think about why this answer is amusing and how it connects to plants.

(Let students think and discuss.)

Healing better

Teacher: Next, read 'Healing Better.' It mentions Giloy, which helps boost immunity, improves digestion and treats certain ailments. Reflect on why a plant could have these medicinal properties. Think of other plants you know with health benefits.

MUST DO
5 MIN.

Grasping better

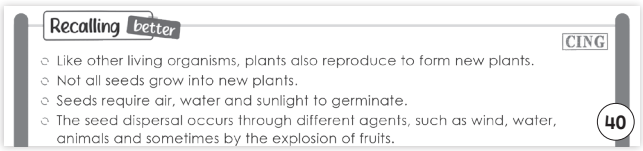
Teacher: In 'Grasping Better,' you will notice the term 'cellular respiration.' This is the process by which cells derive energy from food. Please connect this concept to the growth of new plants and how they use energy from their stored food during germination.

MUST DO
5 MIN.

Recalling better

Teacher: Let us recall some important facts about how plants reproduce. First, do plants grow in the same way as animals or do they have their own method of reproduction?

MUST DO
10 MIN.



Teacher: That is correct. Plants reproduce to form new plants. Now, think about seeds. Do all seeds grow into new plants? Why do you think some do not?

Teacher: Well done. Now, let us talk about what seeds need to germinate. What are the three essential things a seed requires to sprout and grow?

Teacher: Excellent answers. Air, water and sunlight are necessary for germination. Now, let us move on to seed dispersal. How do seeds travel from one place to another? Think about what helps them spread.

Teacher: Great thinking. Seeds disperse through wind, water, animals and sometimes even by the explosion of fruits. Can you think of an example where a seed is carried by the wind or by an animal?

Teacher: Fantastic observations. Finally, apart from seeds, how else can plants reproduce? Consider different parts of a plant that can grow into a new one.

Teacher: That is absolutely right. Plants can also reproduce through their stems, buds, roots and leaves. Now, take a moment to reflect on everything we have discussed.

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

(Instruct students to bring their Workbook in their next class.)

Differentiated Activity

110 km/h

Which property does Giloy help with apart from boosting immunity?

80 km/h

Which process helps a seed get the energy it needs to grow into a plant?

40 km/h

Name one common agent of seed dispersal.

Home Task

The 'Trying better' activity on page 39 of your Main Course Book.

Period 8

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

Teacher: Great. I will call out a part of a plant and you have to act out what it does. Ready?

SHOULD DO
5 MIN.

Teacher: Roots – Spread your legs wide and press your feet firmly on the ground as if you are gripping the soil.

Teacher: Stem – Stand tall and stretch your arms up like a strong stem holding leaves and flowers.

Teacher: Leaves – Wiggle your fingers like leaves waving in the wind while collecting sunlight.

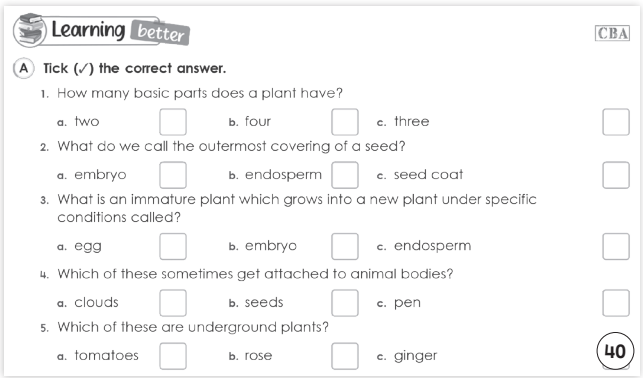
Teacher: Flowers – Open your hands wide like petals blooming in the sun.

Teacher: Seeds – Curl up into a small ball and pretend you are waiting to grow.

Teacher: That was amazing. Well done, everyone. Let us move on to our lesson.

Teacher: Wonderful. Let us give ourselves a big applause for all the energy you brought to the class.

Learning better



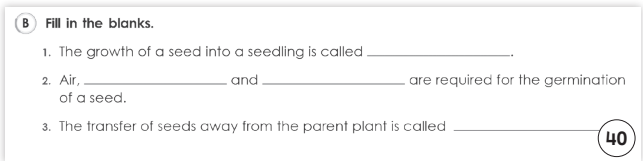
Teacher: Everyone please open page 40 of your Main Course Book. We have an exercise called 'Learning Better.' In part 'A' of 'Learning better' you have to tick the correct answer. Are you ready to get started?

MUST DO
10 MIN.

Teacher: Great. Let us begin with the first question. How many basic parts does a plant have?

Teacher: The correct answer is four. Well done.

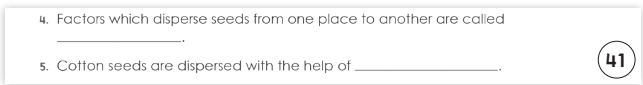
(Similarly complete all five questions)



B Fill in the blanks.

1. The growth of a seed into a seedling is called _____.
2. Air, _____ and _____ are required for the germination of a seed.
3. The transfer of seeds away from the parent plant is called _____

40



4. Factors which disperse seeds from one place to another are called _____.
5. Cotton seeds are dispersed with the help of _____.

41

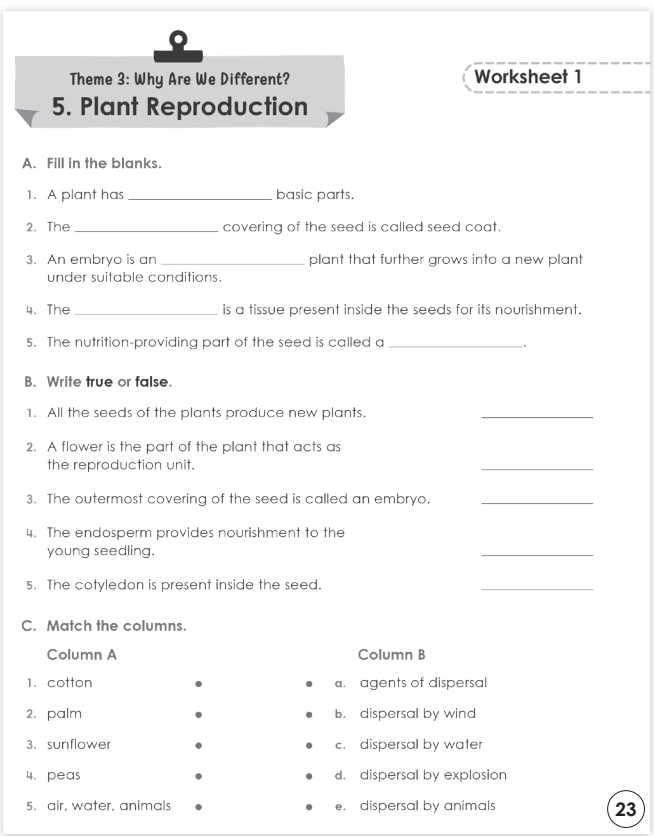
Teacher: Let us start part 'B' of the 'Learning better' section, you have to fill in the blanks. Are you ready to get started?

MUST DO
10 MIN.

Teacher: Great. Let us begin with the first question. The growth of a seed into a seedling is called _____. Think carefully and fill in the blanks.

(Similarly complete all five questions)

Workbook 1



Theme 3: Why Are We Different?

5. Plant Reproduction

Worksheet 1

A. Fill in the blanks.

1. A plant has _____ basic parts.
2. The _____ covering of the seed is called seed coat.
3. An embryo is an _____ plant that further grows into a new plant under suitable conditions.
4. The _____ is a tissue present inside the seeds for its nourishment.
5. The nutrition-providing part of the seed is called a _____.

B. Write **true** or **false**.

1. All the seeds of the plants produce new plants. _____
2. A flower is the part of the plant that acts as the reproduction unit. _____
3. The outermost covering of the seed is called an embryo. _____
4. The endosperm provides nourishment to the young seedling. _____
5. The cotyledon is present inside the seed. _____

C. Match the columns.

Column A		Column B
1. cotton	a.	agents of dispersal
2. palm	b.	dispersal by wind
3. sunflower	c.	dispersal by water
4. peas	d.	dispersal by explosion
5. air, water, animals	e.	dispersal by animals

23

Teacher: Let us do some activities from the workbook. Everybody, please open page 23 of your workbook and answer the questions given in worksheet - 1.

MUST DO
15 MIN.

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

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

Differentiated Activities

110 km/hr

Which part of the plant helps in vegetative propagation in potatoes?

80 km/hr

Which plant part helps transport water from roots to leaves?

40 km/hr

Which part of the plant makes food using sunlight?

Home Task

Observe three different plants around your home or neighbourhood. Identify whether they reproduce through seeds or vegetative propagation. Write their names and explain how they reproduce in one or two sentences. Draw and label their parts in your notebook.

Period 9

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

Teacher: Fantastic. Let us start our lesson with a fun guessing game called 'Guess the Plant Part.' I will describe a part of a plant and you have to guess what it is. Raise your hand if you know the answer. Let us begin.

SHOULD DO
5 MIN.

Teacher: I anchor the plant into the soil and absorb water and nutrients. Who am I? (Roots)

Teacher: I transport water and nutrients from the roots to the rest of the plant. Who am I? (Stem)

Teacher: I am green and make food for the plant using sunlight. Who am I? (Leaf)

Teacher: I protect the seed and help it grow into a new plant. Who am I? (Seed Coat)

Teacher: I am colourful and attract bees and butterflies to help the plant reproduce. Who am I? (Flower)

Teacher: Fantastic. You all are doing great. Now, think of another plant part and describe it to your partner. See if they can guess it.

Learning better

C **Write short answers in your notebook.**

1. What is an embryo?
2. Kavita's mother told her that potatoes grow when farmers sow a part of the potato in the soil. What type of method is used by farmers for growing potatoes?
3. What is germination?

41

Teacher: Today, we will dive into some exciting questions about Plant Reproduction. Everyone, please open page 41 of your Main Course Book. We have an exercise called 'Learning Better.' In part 'C' of the 'Learning better' section, you have to write a short answer. Are you ready to get started?

MUST DO
10 MIN.

Teacher: Let us begin with the first question. What is an embryo?

(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)

D **Write long answers in your notebook.**

1. Describe the various stages of germination.
2. Write in detail about the different agents of seed dispersal.

41

Teacher: Great. Let us explore some long-answer questions. Let us begin with the first question. Describe the various stages of germination.

MUST DO
10 MIN.

(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.)

Teacher: After you finish writing your answers, please exchange them with a friend beside you.

Workbook 2

Worksheet 2

A. **Fill in the blanks.**

1. The growth of a seed into a _____ is called germination.
2. _____ is essential for the softening of the seed coat.
3. The seeds of the plants become active in the presence of _____.
4. _____, water and sunlight are the desired conditions for the development of a germinating seed.
5. The growth of _____ takes place in downward direction.

B. **Rearrange the letters to make words related to the plants.**

1. BRYOEM _____
2. SPERMENDO _____
3. EDSE ATCO _____
4. LEDONCOTY _____
5. LINGSEED _____

C. **Write true or false.**

1. A seed grows into a young plant upon germination. _____
2. The growth of roots takes place in the upward direction. _____
3. The growth of shoot takes place in the upward direction. _____
4. Plants can move on their own. _____
5. All the seeds produced by a plant cannot grow into new plants. _____

24

Teacher: Let us do some activities from the workbook. Everybody, please open page 24 of your workbook and answer the questions given in worksheet - 2.

MUST DO
10 MIN.

(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 22 under the title 'Plant Reproduction.' 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
5 MIN.

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

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

Differentiated Activities

110 km/h

Which part of the seed provides nourishment to the growing embryo?

80 km/h

What do seeds need to germinate?

40 km/h

What is the outer covering of a seed called?

Home Task

Refer to the book of Project Ideas, page 15 under the title 'Plant Reproduction.' This project should be assigned to the students to work on. Ensure that the students understand the project requirements and provide any necessary guidance or materials they might need. Encourage them to explore and learn about plant reproduction through this engaging project.

Period 10

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

Teacher: Today, we will play a game called 'Guess the Seed'. I will describe a seed and you will guess which plant it belongs to. Raise your hand if you know the answer. Let us begin.

SHOULD DO
5 MIN.

Teacher: I am small, round, and used to make cooking oil. Birds love to eat me too. Who am I? (Sunflower seed)

Teacher: I have a hard outer shell and can grow into a tall tree near water. My name is also the name of my fruit. Who am I? (Coconut seed)

Teacher: I am tiny and light, and I travel far when the wind blows. I am found on fluffy white plants. Who am I? (Cotton seed)

Teacher: I am found inside a juicy red fruit. People eat my fruit raw or in ketchup. Who am I? (Tomato seed)

Teacher: I am hidden inside a green pod. When I am fully grown, I burst out and spread in all directions. Who am I? (Pea seed)

Teacher: Excellent guesses, everyone. Give yourselves a big round of applause for your enthusiasm. Now, let us learn more about how seeds grow into plants.

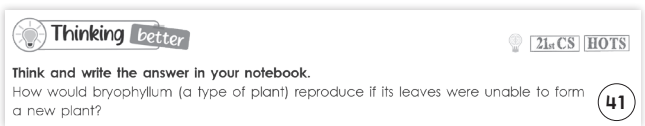
Discuss the project assigned in the previous period, focusing on helping students understand the objectives and addressing any challenges they faced.

MUST DO 5 MIN.

Thinking Better

Teacher: Let us begin with a question to make you think. How would bryophyllum reproduce if its leaves were unable to form a new plant? Take a moment to think and write your answer in your notebook.

MUST DO 10 MIN.



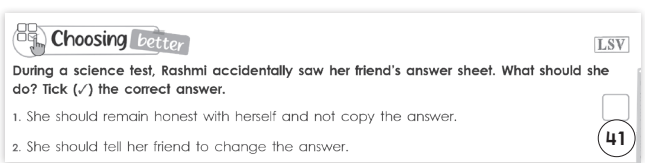
Teacher: Now, who would like to share their thoughts? Explain how bryophyllum usually reproduces and what would happen if its leaves could not grow into new plants.

Teacher: Excellent thinking. Now, let us move on to a real-life situation.

Choosing Better

Teacher: Imagine you are in a science test. Rashmi, one of your classmates, accidentally sees her friend's answer sheet. What should she do? Here are two choices:

MUST DO 5 MIN.



1. Remain honest and not copy the answer.
2. Tell her friend to change the answer.

Teacher: Think carefully before choosing. Discuss with your partner why honesty is important in learning.

Teacher: Great discussions. Who would like to share their response and explain their reasoning?

Teacher: Well done. Honesty helps us learn better and making ethical choices is always important. Now, let us revise what we have learnt.

Revising Better

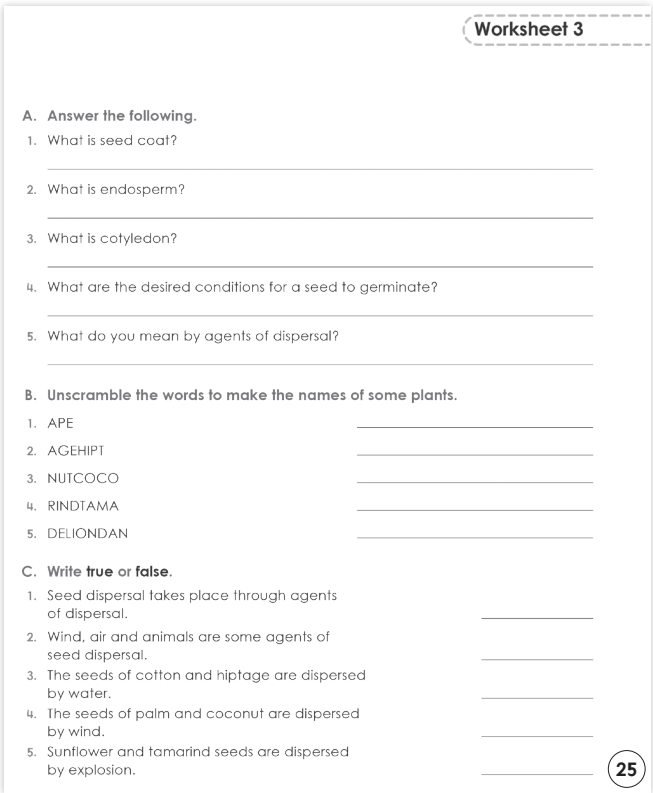
Teacher: It is time to revise. I want each of you to write about vegetative propagation and its examples in your Little Book.

MUST DO 5 MIN.

Teacher: What does vegetative propagation mean? How do plants like potatoes, onions and bryophyllum reproduce? Write your answers in your own words.

Teacher: Wonderful effort. You are all doing an excellent work of understanding this concept.

Workbook 3



Teacher: Let us do some activities from the workbook. Everybody, please open page 25 of your workbook and answer the questions given in worksheet - 3.

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

MUST DO 10 MIN.

Teacher: Now, let us fill in the last column of the KWL chart.

Teacher: In this column, we will write what we have learned in this chapter.

Teacher: Think about the topics, we have learned and write them neatly in the 'L' column of the chart.
(Wait for students to fill in the chart.)
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 Activity

110 km/h

Name one plant that reproduces through vegetative propagation.

80 km/h

What is the method of reproduction in bryophyllum?

40 km/h

How does an onion plant reproduce?

Home Task

The 'Creating better' activity on page 41 of the Main Course Book.

Learning Outcomes

The students will:

Domain	Learning Outcome
Physical Development	improve fine motor skills through hands-on activities like drawing, cutting plant parts, soaking seeds, and creating seed art.
Socio-Emotional and Ethical Development	enhance teamwork and collaboration through peer discussions and partner activities while developing a sense of responsibility in handling plants and appreciating the importance of nature in everyday life.
Cognitive Development	develop cognitive skills by understanding and recalling seed germination and dispersal, differentiating between vegetative propagation and seed reproduction, and applying knowledge to predict plant growth in different conditions.
Language and Literacy Development	develop listening and comprehension skills through auditory activities, expanding vocabulary with terms like 'germination,' 'endosperm,' and 'dispersal,' and enhancing writing skills through short and long-answer questions.
Aesthetic and Cultural Development	foster creativity and appreciation for natural resources through a butterfly art project using seeds while recognising the cultural significance of plants like Giloy in traditional medicine.
Positive Learning Habits	cultivate positive learning habits by developing observation skills through home experiments, encouraging curiosity and exploration in interactive discussions, and fostering critical thinking with reflection-based activities like 'Thinking Better.'

Starry Knights
Hope you had an excellent teaching session with the learners. Share a few anecdotes here.

Give yourself a STAR.

Lesson-6: Animal Around Us

9 Periods (40 minutes each)

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

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

Affirming better: I care for all creatures.

Curricular Goals and Objectives (NCF)

To enable the students:

- to classify animals based on their habitats, movement, and respiratory systems.
- to understand animal migration and adaptation to different climates.
- to appreciate scientific contributions and the role of Ayurveda in animal and plant life.
- to develop critical thinking and communication skills by solving real-world problems.

Methodology

Period 1

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

MUST DO 5 MIN.

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 day with positive energy.

Teacher: Before we start the class, let us all say together, 'I care for all creatures.' Repeat after me: 'I care for all creatures.'

MUST DO 5 MIN.

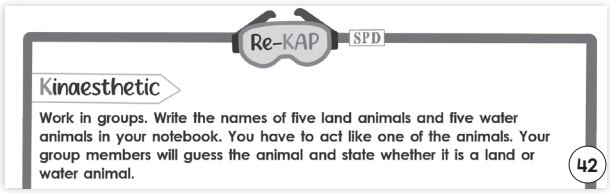
Teacher: Alright. Today, we are going to begin a new chapter 'Animals Around Us.' We use a KWL chart to help us organize our thoughts and learning. I have made a KWL format on the blackboard. Please take out your notebooks and draw the same format.

K	W	L

Teacher: Let us start by filling out the 'K' and 'L' 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, starting with a kinaesthetic activity to get us ready for the new topic.

Kinaesthetic



Teacher: Let us start a Kinaesthetic activity. We will play an acting game in groups. I need everyone to form groups of four or five students. Each group will write the names of five land animals and five water animals in their notebooks. Then, one of you will act like an animal and your group members will guess which animal it is and whether it lives on land or in water.

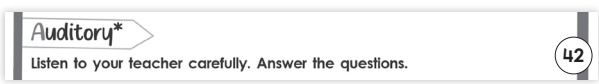
MUST DO 10 MIN.

Teacher: Get ready and let us begin.

(Give time for students to act and guess.)

Teacher: Fantastic efforts. I could see some great creativity. Now, let us move to the next activity.

Auditory



Teacher: I need you to listen carefully and I will ask you a few questions after that. Are you ready?

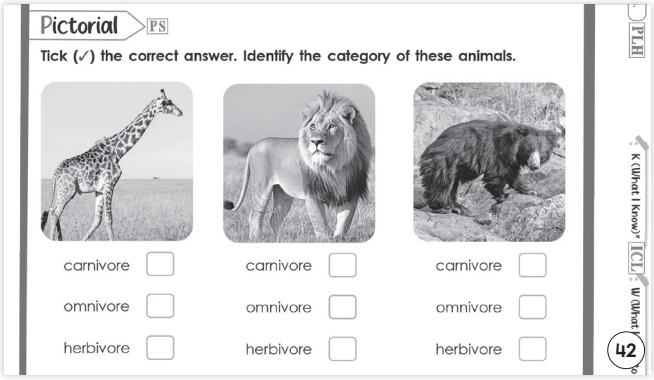
MUST DO 10 MIN.

Teacher: Let us start. Animals that fly are called aerial animals. Almost all birds and insects can fly with their wings. Bat is the only mammal capable of flying.

1. What are the animals that can fly called?
2. Name a mammal that can fly.
   (Wait for students to answer)

Teacher: Great listening. Keep it up.

Pictorial



Teacher: Now, let us move on to the pictorial activity. Look at the pictures on page 42 of your Main Course Book. Identify the category of these animals and tick the correct answer.

MUST DO
10 MIN.

(Wait for students to name the part of each animal and discuss the correct answers.)

Teacher: Brilliant. You all did a fantastic job identifying the parts of plants.

Differentiated Activities

110 km/h

Name one land animal that is a herbivore.

80 km/h

Give an example of an omnivore.

40 km/h

What do we call animals that eat only meat?

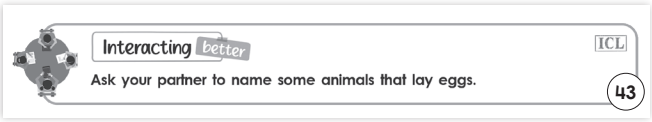
Home Task

Look around your surroundings and observe different animals. Write down the names of four animals you see and classify them as carnivores, herbivores or omnivores. Also, mention if they live on land, water or both.

Period 2

Interacting better

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



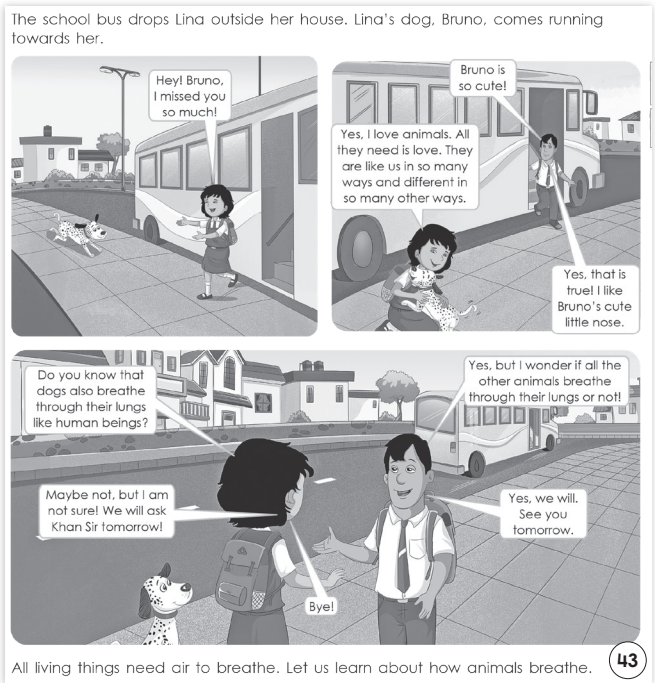
Teacher: Today, we are going to start with an activity called 'Interacting Better'. You have to ask your partner to name some animals that lay eggs.

MUST DO
10 MIN.

Take five minutes to discuss and think of as many examples as possible. Once you have finished, we will share our answers with the class and discuss them together.

(Give students time to discuss and respond.)

(Use CRM signs to settle the class.)



Teacher: Excellent. Now, we are going to explore how animals breathe. Before we begin, I would like you to carefully observe the pictures in the story and read the text on your own.

MUST DO
20 MIN.

Teacher: As you read, think about how Lina and her friends discuss their pet dog, Bruno. Please pay close attention to their conversation about how animals breathe.

(Give students time to read and observe.)

Teacher: Now that you have read the story, let us discuss some questions to check your understanding. When Lina steps off the school bus, what is the first thing she does?

Teacher: Yes, she sees her pet dog, Bruno, running towards her. She is very excited and happily calls out to him, saying, "Hey! Bruno, I missed you so much!"

Teacher: How does Lina feel when she sees Bruno, and how do you know?

Teacher: Yes, she feels happy and excited. We can tell from her cheerful expression and the way she runs towards Bruno with open arms.

Teacher: What does Lina say about animals?

Teacher: Yes, she says that all animals need love. She also shares that animals are like humans in some ways but different in others. This shows her kindness and care for animals.

Teacher: How does Lina's friend react to Bruno?

Teacher: Yes, he finds Bruno very cute and appreciates his little nose. This shows that he also likes animals.

Teacher: What question does Lina's friend ask about how dogs breathe?

Teacher: Yes, he asks if dogs breathe through their lungs like human beings. This means he is curious about how animals' bodies work.

Teacher: Do dogs breathe the same way as humans? How do you know?

Teacher: Yes, they do. Dogs breathe through their lungs, just like humans. Lina and her friend are unsure about the details, so they decide to ask their teacher, Khan Sir, the next day.

Teacher: What question does Lina's friend have about how other animals breathe?

Teacher: Yes, he wonders whether all animals breathe through their lungs or if some use different ways to breathe. This shows his curiosity about the natural world.

Teacher: How does the conversation end between the two friends?

Teacher: Yes, they decide to find out more about the topic and agree to ask their teacher the next day. They say goodbye cheerfully, showing their excitement to learn more.

Teacher: Very well done, everyone.

Teacher: Let us do some rapid-fire questions to revise our learning.

COULD DO
10 MIN.

Teacher: Name one herbivore animal. Example: Cow, deer, etc.

Teacher: Name one omnivore animal. Example: Bear, crow, etc.

Teacher: What do we call animals that eat only meat? - Carnivores

Teacher: Which mammal can fly? - Bat

Teacher: What are flying animals (like birds and insects) called? - Aerial animals

(Use rapid questioning to keep students engaged. Encourage them to respond quickly and confidently. Encourage the correct responses. Discuss the correct answers with the class.)

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

Differentiated Activities

110 km/h

Name an animal that breathes through spiracles.

80 km/h

What is the breathing organ of a fish?

40 km/h

How do frogs breathe apart from their lungs?

Home Task

Observe three different animals in your surroundings. Write down how they breathe and whether they use lungs, gills, skin or spiracles. Draw and label their breathing organs.

Period 3

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

Teacher: Great. Today, we are going to play a game called 'Guess the Animal.' I will describe an animal and you will guess what it is. Raise your hand if you know the answer. Let us begin.

SHOULD DO
5 MIN.

Teacher: I have feathers, I lay eggs, and many of my kind can fly high in the sky. Who am I? (A bird)

Teacher: I breathe through my gills and live in water. Who am I? (A fish)

Teacher: I am a mammal because I produce milk for my babies, but I can also fly. Who am I? (A bat)

Teacher: I have slimy skin, can hop on land, and lay eggs in water. Who am I? (A frog)

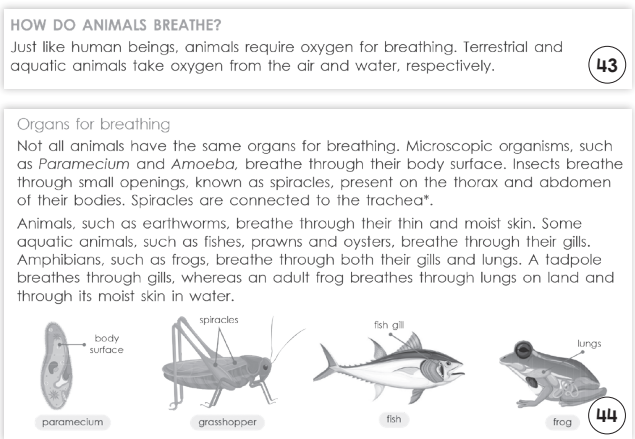
Teacher: I breathe through spiracles on my body, and many of my kind can crawl or buzz around. Who am I? (An insect)

Teacher: Great. Let us give ourselves a big applause for all the energy you brought to the class.

MUST DO
20 MIN.

Teacher: Today, we are going to learn about how animals breathe.

(The teacher will read the last paragraph of page 43 and the first two paragraphs of 44 aloud and provide explanations to ensure that the students understand the content.)



HOW DO ANIMALS BREATHE?

Just like human beings, animals require oxygen for breathing. Terrestrial and aquatic animals take oxygen from the air and water, respectively.

43

Organs for breathing

Not all animals have the same organs for breathing. Microscopic organisms, such as *Paramecium* and *Amoeba*, breathe through their body surface. Insects breathe through small openings, known as spiracles, present on the thorax and abdomen of their bodies. Spiracles are connected to the trachea*.

Animals, such as earthworms, breathe through their thin and moist skin. Some aquatic animals, such as fishes, prawns and oysters, breathe through their gills. Amphibians, such as frogs, breathe through both their gills and lungs. A tadpole breathes through gills, whereas an adult frog breathes through lungs on land and through its moist skin in water.

44

Teacher: Now, tell me, do all living things need air to breathe?

Teacher: That is correct. Just like humans, animals require oxygen for breathing. Terrestrial animals take oxygen from the air, while aquatic animals take it from water. What do you think—do all animals have the same breathing organs?

Teacher: Very good. Let us now explore the different ways animals breathe. Microscopic organisms like Paramecium and Amoeba breathe through their body surface. Can anyone guess how insects breathe?

Teacher: Correct. Spiracles are small openings present on the thorax and abdomen of their bodies. These spiracles are connected to the trachea. Now, think about earthworms. How do they breathe?

Teacher: Well done. Now, let us talk about aquatic animals like fishes, prawns and oysters. What do they use to breathe?

Teacher: Yes. Fishes and other aquatic animals breathe through gills. But what about amphibians, such as frogs? Do they breathe in only one way?

Teacher: Excellent. A tadpole breathes through gills, whereas an adult frog breathes through lungs on land and moist skin in water. Now, let us reinforce what we have learned with some quick activities.

Teacher: Let us match the animals with their breathing organs. I will say the name of an animal and you will tell me how it breathes. Ready?

COULD DO
10 MIN.

Teacher: Paramecium? (Body surface.)

Teacher: Grasshopper? (Spiracles.)

Teacher: Fish? (Gills.)

Teacher: Frog? (Gills as a tadpole, lungs and moist skin as an adult.)

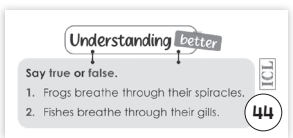
(Discuss and explain the correct answer with the class.)

Teacher: Great work. Now, let us challenge ourselves further.

Understanding better

Teacher: Let us play a quick game called 'True or False' to check our understanding. Listen carefully and if you think the statement is true, say 'True.' If you think it is false, say 'False' and explain why.

MUST DO
5 MIN.


Understanding better
Say true or false.
1. Frogs breathe through their spiracles.
2. Fishes breathe through their gills.
44

Teacher: First statement – Frogs breathe through their spiracles.

Teacher: Now, the second statement – Fishes breathe through their gills.

Teacher: Fantastic responses. You all are thinking critically. Let us keep going and explore more about how animals breathe.

Differentiated Activities

110 km/h

Name an insect that breathes through spiracles.

80 km/h

Name one aquatic animal that breathes through gills.

40 km/h

How do earthworms breathe?

Home Task

Find and write about one more animal that breathes in a unique way. Describe how it breathes and why that method suits its habitat.

Period 4

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

Teacher: Let us play a game called 'Guess the Animal Habitat.' I will describe a habitat and you will guess which animal lives there. Raise your hand if you know the answer.

SHOULD DO
5 MIN.

Teacher: I live in water, have gills to breathe, and swim using my fins. Who am I? (Fish)

Teacher: I live on land, have fur on my body, and give birth to my babies. Who am I? (Dog or any mammal)

Teacher: I can fly in the sky, I have feathers, and I lay eggs. Who am I? (Bird)

Teacher: I can live both on land and in water, and I have moist skin. Who am I? (Frog)

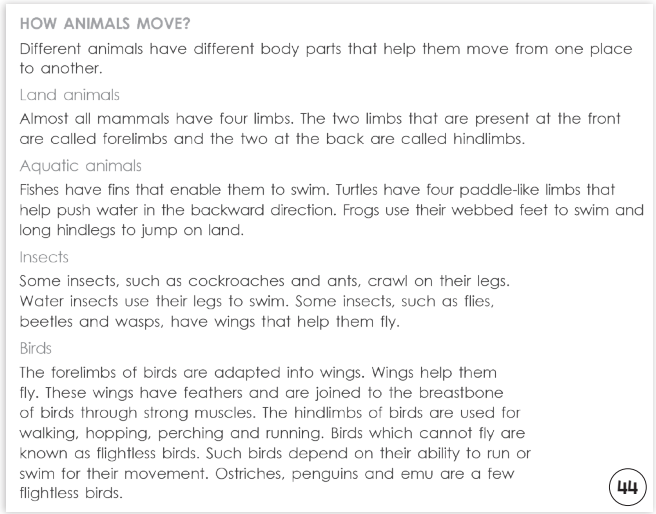
Teacher: I crawl on the ground, have many legs, and breathe through spiracles. Who am I? (Insect)

Teacher: Excellent. You all did a wonderful job identifying animals based on their habitats. Now, let us get ready for our lesson.

Teacher: Today, we are going to learn about how animals move.

(The teacher will read the last five paragraphs of page 44 and the first paragraph of page 45 aloud and provide explanations to ensure that the students understand the content.)

MUST DO
25 MIN.


HOW ANIMALS MOVE?

Different animals have different body parts that help them move from one place to another.

Land animals

Almost all mammals have four limbs. The two limbs that are present at the front are called forelimbs and the two at the back are called hindlimbs.

Aquatic animals

Fishes have fins that enable them to swim. Turtles have four paddle-like limbs that help push water in the backward direction. Frogs use their webbed feet to swim and long hindlegs to jump on land.

Insects

Some insects, such as cockroaches and ants, crawl on their legs. Water insects use their legs to swim. Some insects, such as flies, beetles and wasps, have wings that help them fly.

Birds

The forelimbs of birds are adapted into wings. Wings help them fly. These wings have feathers and are joined to the breastbone of birds through strong muscles. The hindlimbs of birds are used for walking, hopping, perching and running. Birds which cannot fly are known as flightless birds. Such birds depend on their ability to run or swim for their movement. Ostriches, penguins and emu are a few flightless birds.

44


Reptiles

Reptiles, such as tortoise, crocodiles and lizards crawl. Snakes have plates that are attached to their ribs. While moving, these plates or scales act as feet and the ribs act as legs.

reptiles crawl

45

Teacher: How do animals move?

Teacher: Yes, tell me do all animals move in the same way?

Teacher: Great. How many limbs do most mammals have?

Teacher: Excellent. Tell me what do we call the front two limbs? What about the back two?

Teacher: Correct. Can you name a land animal that moves using all four limbs?

Teacher: Great. How do fishes move in water?

Teacher: Excellent. What helps turtles swim?

Teacher: Yes, tell me what special body part helps frogs swim? What helps a frog jump on land?

Teacher: Correct. How do cockroaches and ants move?

Teacher: How do water insects swim?

Teacher: Can all insects only crawl? Can you name an insect that flies?

Teacher: Correct, tell me what body part helps birds fly? What do they use their hindlimbs for?

Teacher: Can all birds fly? What do we call birds that cannot fly?

Teacher: Great. Now tell me how do lizards, crocodiles and tortoises move?

Teacher: Do snakes have legs? If not, how do they move?

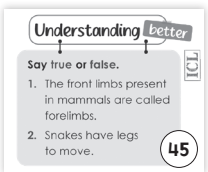
Teacher: Wonderful. You are all thinking carefully. Let us now test our understanding with a quick activity.

Understanding better

MUST DO

10 MIN.

Teacher: Let us play a quick 'True or False' game to check our understanding. Listen carefully and if you think the statement is true, say 'True.' If you think it is false, say 'False' and explain why.


Understanding better

Say true or false.

1. The front limbs present in mammals are called forelimbs.
2. Snakes have legs to move.

ICL

45

Teacher: First statement – The front limbs present in mammals are called forelimbs.

Teacher: Second statement – Snakes have legs to move.

(Wait for the response of the students. Appreciate the correct responses.)

Teacher: Excellent responses.

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

Differentiated Activities

110 km/h

Name one aquatic animal that uses fins to swim.

80 km/h

Name a flightless bird.

40 km/h

How do snakes move?

Home Task

Observe three different animals in your surroundings. Write how they move and which body parts help them. Draw and label their body parts.

Period 5

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

SHOULD DO

5 MIN.

Teacher: Let us play a game called 'Guess My Movement.' I will describe how an animal moves and you have to guess the animal. Raise your hand if you know the answer. Let us begin.

Teacher: I have strong hind legs and I can leap great distances. Who am I? (Frog)

Teacher: I slither on the ground without legs. Who am I? (Snake)

Teacher: I use my wings to glide in the air, but I am not a bird. Who am I? (Bat)

Teacher: I swim using my fins and breathe through gills. Who am I? (Fish)

Teacher: I move slowly on land and carry my shell on my back. Who am I? (Tortoise)

Teacher: Fantastic. You all did a great job identifying the animals based on their movements. Now, let us get ready for the next activity.

MUST DO

10 MIN.

Teacher: Today, we will explore how and why animals migrate.

(The teacher will read the second and third paragraphs of page 45 and provide explanations to ensure that the students understand the content.)


MIGRATION AMONG ANIMALS

The seasonal movement of animals from one place to another is called migration. Animals migrate due to several reasons, such as weather, food, water and shelter.

Birds, such as Siberian cranes, storks and mallard ducks, migrate from other countries to India during winters. Some migratory fishes, such as eels, migrate from rivers to seas and lay eggs there. Some migratory insects, such as locusts, cause severe damage to crops, sometimes resulting in famine*.

Siberian crane (migratory bird)

45

Teacher: Have you ever heard of birds travelling long distances? What do we call this movement from one place to another?

Teacher: Excellent. Migration is the seasonal movement of animals from one place to another. Why do you think animals migrate?

Teacher: Yes. Birds travel great distances to find favourable conditions. They migrate for food, shelter, better weather and breeding. Can you name a bird that migrates to India during winter?

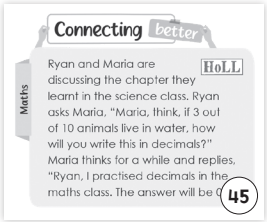
Teacher: Correct. Siberian cranes, storks and mallard ducks migrate to India. But birds are not the only ones that migrate. Can you think of other animals that migrate?

Teacher: Well done. Some migratory fishes, like eels, move from rivers to the sea to lay eggs. Some insects, like locusts, also migrate. Why do you think locust migration can be dangerous?

Teacher: That is right. Locusts can destroy crops, which can lead to famine. Now, let us relate migration to mathematics with a quick discussion.

You may show the **Animation** on the digital platform.

Connecting better



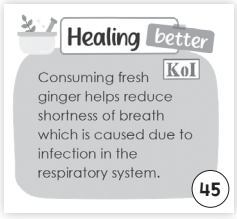
MUST DO

5 MIN.

Teacher: Let us connect what we have learned about animals to a mathematics problem. If 3 out of 10 animals migrate during winter, how will you write this as a decimal?

Teacher: Great thinking. Yes, the answer is 0.3. Understanding numbers helps us study patterns in animal behaviour too. Let us move on to some interesting facts.

Healing better



MUST DO

10 MIN.

Teacher: Can anyone think of a natural ingredient that is used for treating common health problems?

Teacher: Great. One such ingredient is ginger. Have you ever heard of ginger being used to help with a cough or cold?

Teacher: That is right. Ginger has many healing properties. Can you guess how it helps people who have shortness of breath due to a respiratory infection?

Teacher: Yes. Consuming fresh ginger can help reduce shortness of breath by clearing the respiratory system. Why do you think natural remedies like ginger are useful?

Teacher: Well done. Natural remedies can help us feel better without the need for strong medicines in some cases.

Finding better

MUST DO

10 MIN.

Teacher: Let us think about something interesting today. Can all animals jump?

Teacher: Most animals can, but there is one large animal that cannot. Can you guess which one?

Teacher: Yes. Elephants cannot jump. Why do you think that is?

Teacher: That is right. It is because their leg bones are pointed downwards. What do you think happens when an animal jumps?

Teacher: Exactly. They push against the ground to lift themselves up. But since elephants' legs lack the necessary spring, they are unable to push off the ground to jump.

Teacher: Fascinating, is it not? Even though elephants cannot jump, they are strong and have other amazing abilities. Now, let us explore more about how different animals move.

Differentiated Activities

110 km/h

Name a bird that migrates to India in winter.

80 km/h

Name a fish that migrates to lay eggs.

40 km/h

What insect migrates in swarms and damages crops?

Home Task

Observe and find out about one migratory animal in your surroundings or from books. Write its name, where it migrates from and why it migrates.

Period 6

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

Teacher: Now, let us play 'Who Am I?' I will give you a few clues about an animal and you have to guess which one I am talking about. Listen carefully.

SHOULD DO

5 MIN.

Teacher: I am the largest land animal. I have a long trunk and big ears. Who am I? (Elephant)

Teacher: I am a bird, but I cannot fly. I am black and white and waddle when I walk. Who am I? (Penguin)

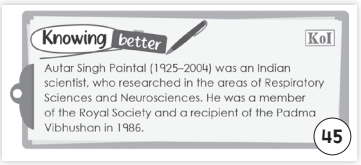
Teacher: I have eight legs and I spin a web to catch my food. Who am I? (Spider)

Teacher: I am known as the 'king of the jungle' and have a loud roar. Who am I? (Lion)

Teacher: I have a long neck and can reach leaves high up in trees. Who am I? (Giraffe)

Teacher: Well done. You are all thinking like animal experts. Now, let us move to the next activity.

Knowing better



MUST DO
10 MIN.

Teacher: Today, we will learn about an important scientist who contributed to respiratory sciences and neurosciences. Can anyone name a scientist who has worked in these fields?

Teacher: Let me introduce you to Autar Singh Paintal. Does anyone know which country he was from?

Teacher: Yes. He was an Indian scientist. What do you think he researched?

Teacher: That is right. He focused on respiratory sciences and neurosciences. Why do you think research in these fields is important?

Teacher: Excellent. Understanding how our respiratory system works helps doctors treat diseases related to breathing. Now, here is something interesting—he was a member of the Royal Society. Does anyone know what that means?

Teacher: Yes, it is a prestigious group of scientists. He was also awarded the Padma Vibhushan in 1986. What do you think this award recognises?

Teacher: Well done. It is one of India's highest civilian honours for exceptional contributions. Learning about scientists like Autar Singh Paintal inspires us to explore and discover. Now, let us discuss how our respiratory system functions.

Grasping better

Teacher: Today, we are going to revise two important words. Let us see if you can recall them. Who can tell me what the trachea is?

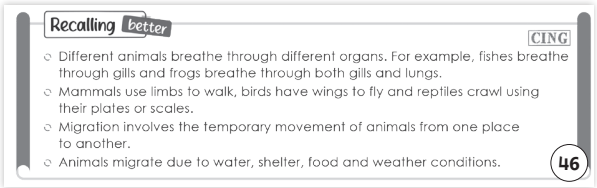
MUST DO
5 MIN.

Teacher: Good attempt. The trachea is a tube that carries air to and from our lungs. Now, let us move on to the second word—famine. Can anyone explain what famine means?

Teacher: Excellent. Famine is an extreme shortage of food.

Teacher: Wonderful thinking. These terms help us understand both our bodies and the world around us. Now, let us use them in sentences to reinforce our learning.

Recalling better



Teacher: Let us quickly recall what we have learned about animals. Can all animals breathe in the same way?

MUST DO
10 MIN.

Teacher: That is right. Different animals breathe through different organs. How do fishes breathe?

Teacher: Excellent. They use gills. What about frogs? Do they breathe only through their lungs?

Teacher: Correct. Frogs can breathe through both gills and lungs at different stages of their life. Now, let us talk about movement. How do mammals move?

Teacher: Yes. Mammals use their limbs to walk. What about birds? How do they move?

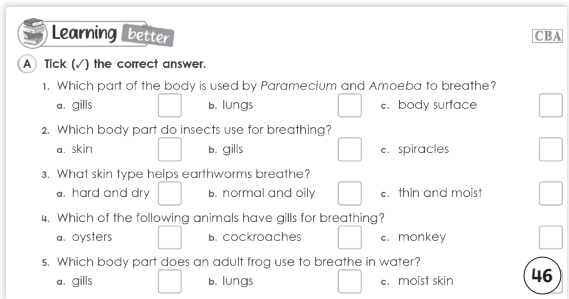
Teacher: Well done. They fly using their wings. Now, can anyone tell me how reptiles move?

Teacher: Great thinking. They crawl using their plates or scales. Now, let us move on to migration. What does migration mean?

Teacher: Exactly. Migration is the temporary movement of animals from one place to another. Can you name some reasons why animals migrate?

Teacher: Brilliant. They migrate for food, water, shelter and better weather conditions. You all have remembered these concepts very well. Now, let us move on to an interesting activity to test our understanding.

Learning better



Teacher: Everyone please open page number 46 of your Main Course Book. We have an exercise called 'Learning Better.' In part 'A' of 'Learning better' you have to tick the correct answer. Are you ready to get started?

MUST DO
10 MIN.

Teacher: Great. Let us begin with the first question. Which part of the body is used by Paramecium and Amoeba to breathe?

Teacher: The correct answer is body surface. Well done. (Similarly complete all five questions)

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

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

Differentiated Activities

110 km/h

Name an animal that migrates to India during winter.

80 km/h

What is the breathing organ of a fish?

40 km/h

What do we call the temporary movement of animals from one place to another?

Home Task

Observe and research one migratory animal. Write about where it migrates from, where it travels to and the reason behind its migration.

Period 7

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

Teacher: Great. Let us start with a quick-thinking game. I will give you a list of four animals and you have to tell me which one does not belong to the group and why. Let us begin.

SHOULD DO — 5 MIN.

Teacher: Cow, Deer, Lion, Goat – Which one is different and why? (Lion – it is a carnivore while the others are herbivores.)

Teacher: Parrot, Crow, Bat, Eagle – Which one is different and why? (Bat – it is a mammal while the others are birds.)

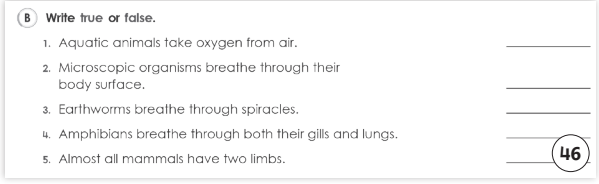
Teacher: Fish, Frog, Dolphin, Shark – Which one is different and why? (Frog – it is an amphibian while the others are aquatic animals.)

Teacher: Tortoise, Crocodile, Snake, Elephant – Which one is different and why? (Elephant – it is a mammal while the others are reptiles.)

Teacher: Penguin, Ostrich, Peacock, Eagle – Which one is different and why? (Eagle – it can fly while the others are flightless birds.)

Teacher: Fantastic. You all are great at spotting differences. Now, let us move on to the next activity.

Learning better



(B) Write true or false.

1. Aquatic animals take oxygen from air. _____
2. Microscopic organisms breathe through their body surface. _____
3. Earthworms breathe through spiracles. _____
4. Amphibians breathe through both their gills and lungs. _____
5. Almost all mammals have two limbs. _____

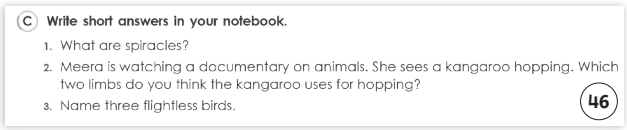
46

Teacher: Today, we will dive into some exciting questions about Animal Around Us. Everyone, please open page number 46 of your Main Course Book. We have an exercise called 'Learning Better.' In part 'B' of the 'Learning better' section, you have to write 'true' or 'false'. Are you ready to get started?

MUST DO — 5 MIN.

Teacher: Great. Let us begin with the first question. Aquatic animals take oxygen from air. Think carefully and write true or false in the space given in front of the statement.

(Similarly complete all five questions)



(C) Write short answers in your notebook.

1. What are spiracles?
2. Meera is watching a documentary on animals. She sees a kangaroo hopping. Which two limbs do you think the kangaroo uses for hopping?
3. Name three flightless birds.

46

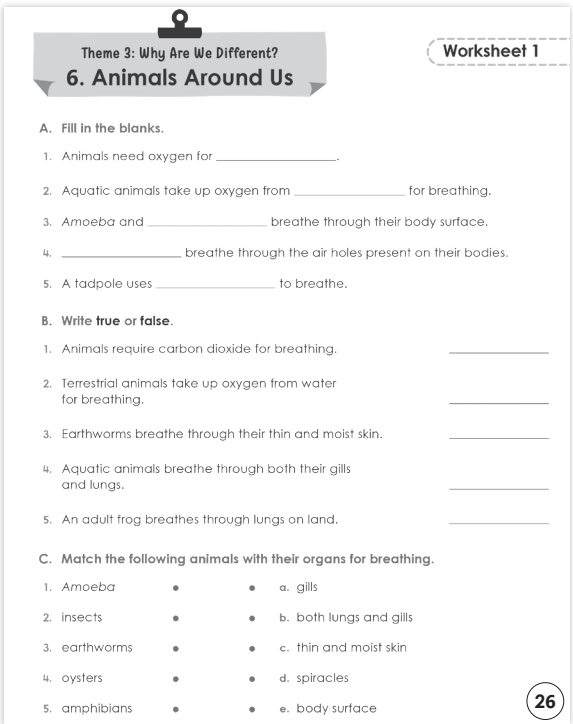
Teacher: Great. Now, let us explore some short-answer questions. In part 'C' of the 'Learning better' section, you have to write short answers. Are you ready to get started? Let us begin with the first question. What are spiracles?

MUST DO — 15 MIN.

(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)

Workbook 1



Theme 3: Why Are We Different?

6. Animals Around Us

Worksheet 1

A. Fill in the blanks.

1. Animals need oxygen for _____.
2. Aquatic animals take up oxygen from _____ for breathing.
3. *Amoeba* and _____ breathe through their body surface.
4. _____ breathe through the air holes present on their bodies.
5. A tadpole uses _____ to breathe.

B. Write **true** or **false**.

1. Animals require carbon dioxide for breathing. _____
2. Terrestrial animals take up oxygen from water for breathing. _____
3. Earthworms breathe through their thin and moist skin. _____
4. Aquatic animals breathe through both their gills and lungs. _____
5. An adult frog breathes through lungs on land. _____

C. Match the following animals with their organs for breathing.

1. *Amoeba*	•	a. gills
2. insects	•	b. both lungs and gills
3. earthworms	•	c. thin and moist skin
4. oysters	•	d. spiracles
5. amphibians	•	e. body surface

26

Teacher: Let us do some activities from the workbook. Everybody, please open page number 26 of your workbook and answer the questions given in worksheet - 1. (Let the students answer the questions on their own. Then discuss the answer by writing the correct answer on the blackboard.)

MUST DO — 15 MIN.

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

Differentiated Activities

110 km/h

Name a mammal that lays eggs.

80 km/h

What do we call animals that are active at night?

40 km/h

Name one bird that cannot fly.

Home Task

The project idea given in the book of Project Ideas, page 15 under the title 'Animals Around Us.' This project should be assigned to the students to work on. Ensure that the students understand the project requirements and provide any necessary guidance or materials they might need. Encourage them to explore and learn about the animals around us through this engaging project.

Period 8

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

Teacher: Let us play a guessing game. I will give you some clues about an animal and you have to guess which one I am talking about. Listen carefully.

SHOULD DO

5 MIN.

Teacher: I have a hard shell and I move very slowly. Who am I? (Tortoise)

Teacher: I have a pouch where I carry my baby. Who am I? (Kangaroo)

Teacher: I sleep upside down in caves. Who am I? (Bat)

Teacher: I have black and white stripes and look like a horse. Who am I? (Zebra)

Teacher: I live in the desert and I can store water in my body. Who am I? (Camel)

Teacher: Fantastic. You all guessed the animals so well. Now, let us get ready for our lesson.

Discuss the project assigned in the previous period, focusing on helping students understand the objectives and addressing any challenges they faced.

MUST DO

5 MIN.

Learning better

D **Write long answers in your notebook.**

1. Describe the various organs that different animals use for breathing.
2. What do you mean by migration? Explain how eels migrate.

47

Teacher: Everyone, please open page number 47 of your Main Course Book. In part 'D' of the 'Learning better' section, you have to write some long-answer questions. Are you ready to get started?

MUST DO

10 MIN.

Teacher: Great. Let us begin with the first question. Describe the various organs that different animals use for breathing.

(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)

Teacher: After you finish writing your answers, please exchange them with a friend beside you.

Thinking better

Thinking better

21st CS HOTS

Think and write the answer in your notebook.

What would happen if animals and birds could not migrate from one place to another?

47

Teacher: Let us begin with a question to make you think. What would happen if animals and birds could not migrate from one place to another? Take a moment to think and write your answer in your notebook.

MUST DO

5 MIN.

(Give students to think and write their answers in their notebooks.)

Teacher: Now, who would like to share their thoughts?

Teacher: Yes. Food shortages could be a big issue. Some animals might not survive due to harsh weather conditions. It could also lead to overcrowding in certain areas, making survival even harder. The food chain could be disrupted, affecting not just migratory animals but also other species in the ecosystem.

Teacher: Excellent thinking.

Worksheet 2

A. **Fill in the blanks.**

1. Most of the mammals have _____ limbs.
2. The limbs that are present at the front are called _____.
3. The limbs that are present at the back are called _____.
4. Turtles have four _____ limbs that help push water backwards.
5. Frogs use their _____ feet to swim.

B. **Rearrange the following jumbled words to make meaningful sentences in your notebook.**

1. all/ almost/ four/ mammals/ have/ limbs.
2. fly/ to/ have/ birds/ wings.
3. is/ bird/ emu/ a/ flightless.
4. to/ walk/ lower/ humans/ limbs/ use/ their.
5. due/ weather,/ migrate/ animals/ to/ water/ food,/ shelter/ and.

C. **Write true or false.**

1. All mammals have two limbs. _____
2. Fishes have lungs that enable them to swim. _____
3. Cockroaches and ants crawl on their legs. _____
4. Water insects use their fins to swim. _____
5. Wasps have wings that help them fly. _____

27

Teacher: Let us do some activities from the workbook. Everybody, please open page number 27 of your workbook and answer the questions given in worksheet - 2.

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

MUST DO
15 MIN.

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

Differentiated Activities

110 km/h

What is the name of the process by which animals shed their old skin?

80 km/h

Which animal is known as the 'ship of the desert'?

40 km/h

What do we call animals that eat both plants and animals?

Home Task

Creating better activity, given on page number 47 of the Main Course Book.

Period 9

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

Teacher: Let us play a guessing game. I will give you some clues about an animal and you have to guess which one I am talking about. Listen carefully.

SHOULD DO
5 MIN.

Teacher: I have sharp claws and a long tail. I am known as the fastest land animal. Who am I? (Cheetah)

Teacher: I can turn my head almost all the way around and I hunt at night. Who am I? (Owl)

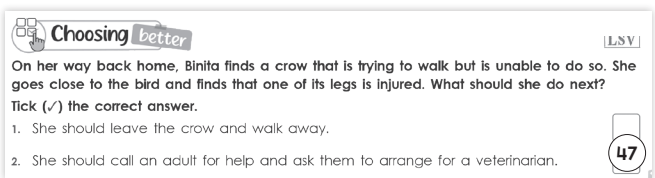
Teacher: I have a strong beak and I can mimic human speech. Who am I? (Parrot)

Teacher: I use echolocation to find my way in the dark. Who am I? (Bat)

Teacher: I have a spiny body and roll into a ball when I feel threatened. Who am I? (Hedgehog)

Teacher: Fantastic. You all guessed the animals so well. Now, let us get ready for our lesson.

Choosing better


Choosing better
LSV
On her way back home, Binita finds a crow that is trying to walk but is unable to do so. She goes close to the bird and finds that one of its legs is injured. What should she do next?
Tick (✓) the correct answer.
1. She should leave the crow and walk away.
2. She should call an adult for help and ask them to arrange for a veterinarian.
47

Teacher: Today, we are going to discuss how we can be kind and responsible towards animals. Imagine you are walking home and you see a crow struggling to walk. You go closer and realise that one of its legs is injured. What would you do next?

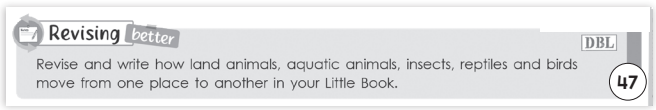
SHOULD DO
5 MIN.

Teacher: That is right. Would it be a good idea to leave the crow and walk away or should you call an adult for help?

Teacher: Absolutely. Asking an adult to arrange for a veterinarian would be the right thing to do. Why do you think helping injured animals is important?

Teacher: Great thinking. Animals, just like humans, need care when they are hurt. Now, let us talk about how different animals move.

Revising better


Revising better
DBL
Revise and write how land animals, aquatic animals, insects, reptiles and birds move from one place to another in your Little Book.
47

Teacher: Can you tell me how land animals move?

Teacher: Yes. They use their legs or crawl. What about aquatic animals?

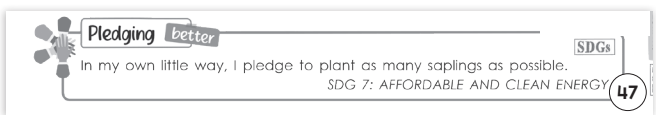
MUST DO
5 MIN.

Teacher: That is right. They swim using fins, tails or webbed feet. What about insects?

Teacher: Correct. Some crawl, while others fly. What about reptiles and birds?

Teacher: Well done. Reptiles mostly crawl or slither, while birds use their wings to fly. I would like you to revise and write about how these animals move in your Little Book.

Pledging better

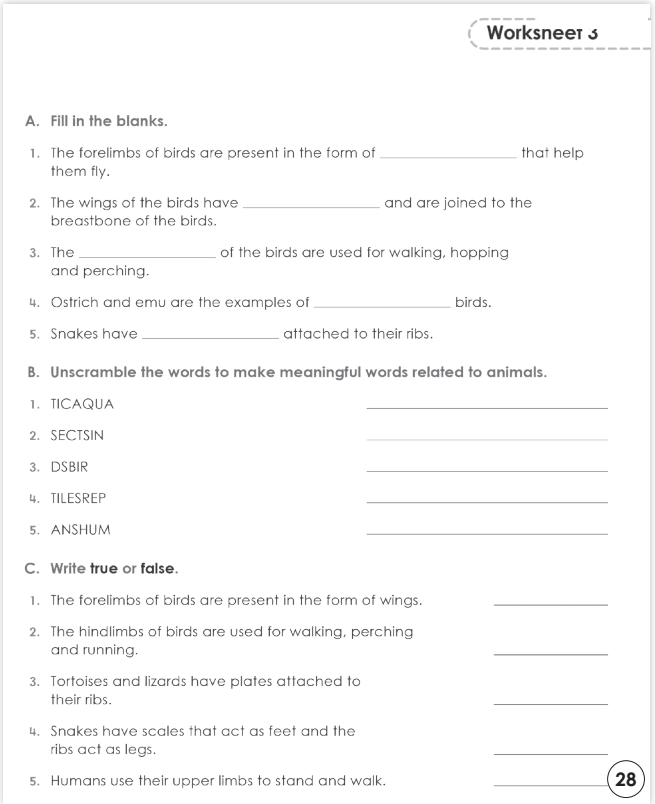

Pledging better
SDGs
In my own little way, I pledge to plant as many saplings as possible.
SDG 7: AFFORDABLE AND CLEAN ENERGY
47

Teacher: Now, let us take a moment to think about our environment. What can we do to help nature and animals?

MUST DO
5 MIN.

Teacher: Fantastic ideas. One simple thing we can do is plant more saplings. Let us pledge today—'I will plant as many saplings as possible to help make the Earth a greener place.'

Teacher: Well done. You all have wonderful ideas. Let us continue to learn and take care of the world around us.



Worksneet 3

A. **Fill in the blanks.**

1. The forelimbs of birds are present in the form of _____ that help them fly.
2. The wings of the birds have _____ and are joined to the breastbone of the birds.
3. The _____ of the birds are used for walking, hopping and perching.
4. Ostrich and emu are the examples of _____ birds.
5. Snakes have _____ attached to their ribs.

B. **Unscramble the words to make meaningful words related to animals.**

1. TICAQUA _____
2. SECTSIN _____
3. DSBIR _____
4. TILESREP _____
5. ANSHUM _____

C. **Write true or false.**

1. The forelimbs of birds are present in the form of wings. _____
2. The hindlimbs of birds are used for walking, perching and running. _____
3. Tortoises and lizards have plates attached to their ribs. _____
4. Snakes have scales that act as feet and the ribs act as legs. _____
5. Humans use their upper limbs to stand and walk. _____

28

Teacher: Let us do some activities from the workbook. Everybody, please open page number 28 of your workbook and answer the questions given in worksheet - 3.

MUST DO

10 MIN.

(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 number 22 under the title 'Animals Around Us.' 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

5 MIN.

Teacher: Now, let us fill in the last column of the KWL chart.

Teacher: In this column, we will write what we have learned in this chapter.

SHOULD DO

5 MIN.

Teacher: Think about the topics, we have learned and write them neatly in the 'L' column of the chart.

(Wait for students to fill in the chart.)

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

Differentiated Activities

110 km/h

What is the main reason birds migrate in winter?

80 km/h

Name a human activity that can harm migratory birds.

40 km/h

What do we call animals that move in groups from one place to another?

Home Task

Activity – 2 (Making a nest), given on page number 48 of the Main Course Book.

Learning Outcomes

The students will:

Domain	Learning Outcome
Physical Development	• engage in kinaesthetic activities such as role-playing animal movements, enhancing their motor skills and body coordination.
Socio-Emotional and Ethical Development	• develop empathy and responsibility towards animals by discussing ethical treatment, making decisions in real-life scenarios (e.g., helping an injured bird) and understanding the importance of conservation efforts.
Cognitive Development	• analyse how different animals breathe, move and migrate, comparing their adaptations to different environments. They will apply critical thinking to answer questions on animal behaviour and habitat needs.
Language and Literacy Development	• enhance their vocabulary by learning new terms like spiracles, migration and amphibians. They will engage in discussions, listening activities and written exercises, strengthening their communication and comprehension skills.
Aesthetic and Cultural Development	• create and decorate models such as animal dice and bird nests, fostering creativity and appreciation for nature. They will explore how different cultures interact with and protect animals.
Positive Learning Habits	• cultivate curiosity and self-directed learning by observing animals, recording findings in their notebooks and pledging actions to support biodiversity, such as planting saplings and creating bird-friendly spaces.

Starry Knights

What would you do if the learners are not in a mood to study and you have to complete the topic as exam is approaching? Share a few tips from your treasure trove of experience.

Give yourself a STAR.