# Lesson-9: Our Environment



10 Periods (40 minutes each)

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

Animation, Animated Activities, Concept Map, Dictionary, eBook, Quiz, Slideshow, Toys from Trash, Test Generator

Confirming better: I save water every day.

## Curricular Goals and Objectives (NCF)

**To enable the students:**

- to understand the components of an ecosystem and how they interact.
- to identify types of pollution and their effects on the environment.
- to practise the 3Rs – Reduce, Reuse and Recycle – in daily life.
- to take responsibility for keeping surroundings clean and safe.
- to make informed choices to protect nature and conserve resources.

## Methodology

### Period 1

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

SHOULD DO 5 MIN.

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

**Teacher**: Sit comfortably in your chair, with your back straight and feet flat on the ground. Close your eyes gently and take a deep breath through your nose. Hold it for a moment, then slowly breathe out through your mouth.

Let us do these three more times. Breathe in... and breathe out. As you breathe, imagine your mind becoming clear and ready to learn.

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

#### Confirming better


**Teacher**: Before we start the class, let us all affirm something positive together: 'I save water every day.' Repeat after me: 'I save water every day.'

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

| K | W | L |
|---|---|---|
| | | |

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

MUST DO 5 MIN.

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

#### Kinaesthetic

**Teacher**: Let us start with a small activity. Pair up with your partner and write in your notebook how we can save our environment. Think of different ways and discuss them with each other. Once you are done, we will share some ideas with the class.

MUST DO 10 MIN.

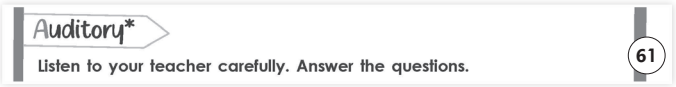

(Give time to the students to write and discuss.)

**Teacher**: Well done, everyone.

## Auditory

**Teacher**: Let us start the auditory activity. Listen carefully to me. I will ask you some questions and I want you to pay attention to every detail before answering. Are you ready?

MUST DO
10 MIN.




**Teacher**: In class, Priya learned about the environment. She told her friend, 'The environment is everything around us, like the air, water, plants and animals. We should recycle paper, plastic and glass and save water by turning off the tap when brushing our teeth.'

**Teacher**: What are two things Priya said we should recycle?
(Waits for student responses.)

**Teacher**: Fantastic answers. You were all listening carefully. Now, let us move to the next activity.

## Pictorial

**Teacher**: Look at the pictures given on page 61 of the Main Coursebook carefully.

MUST DO
10 MIN.


**Teacher**: There are three pictures. Could you observe the pictures carefully and identify the form of pollution the pictures are indicating? You have to match the type of pollution with the pictures.
(Let the students observe the picture and match it with the correct type of pollution. Discuss the correct answer with the class.)

**Teacher**: Excellent observation.

## Differentiated Activities

**110 km/hr**

What is one harmful effect of air pollution?

**80 km/hr**

Name one cause of water pollution.

**40 km/hr**

What type of pollution is caused by loud sounds?

## Home Task

Write down two ways in which we can reduce air pollution. Then, name one thing you can do at home to reduce water pollution.

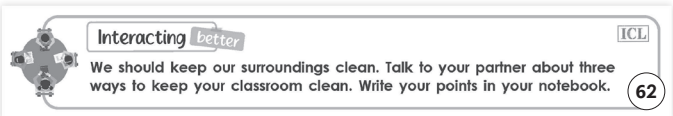
# Period 2

## Interacting better

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

**Teacher**: Great. Let us do an interesting activity. Why do you think cleanliness is important in our classroom?

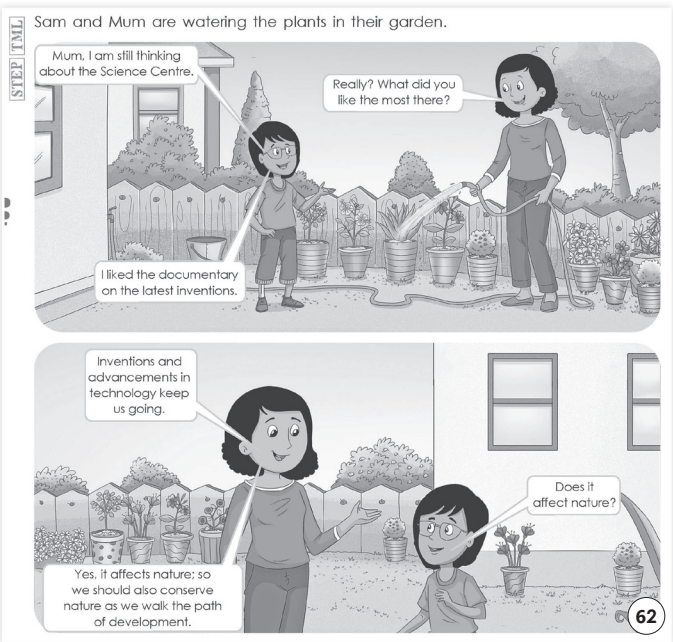
MUST DO
10 MIN.




**Teacher**: That is right. A clean classroom helps us stay healthy and focus better on our studies. Now, pair up with your partner and discuss three ways to keep our classroom clean. Think of simple actions that we all can do every day.

**Teacher**: Once you have discussed, write your points in your notebook. Take your time and think carefully.
(Give the students time to think, write and discuss.)

**Teacher**: Well done, everyone. I can see that you have great ideas. Keeping our surroundings clean is a shared responsibility. Let us make sure we put these ideas into action every day.



**Teacher**: Open your books and carefully observe the picture story. Read the dialogues on your own. Take your time to understand the conversation between Sam and his mother.

MUST DO
30 MIN.

(Give the students time to read the story.)

**Teacher**: Now that you have read the story, let us discuss it. What was Sam thinking about?

**Teacher**: That is right. Sam was thinking about the Science Centre. It must have been a fascinating visit for him.

**Teacher**: What did Sam like the most at the Science Centre?

**Teacher**: Well done. He liked the documentary on the latest inventions. Learning about new inventions helps us understand how technology is shaping the world around us.

**Teacher**: Sam and his mother talked about inventions and technology. What did his mother say about advancements in technology?

**Teacher**: Yes, she said that inventions and advancements in technology keep us going. Technology plays a big role in making our lives easier, from transportation to communication and even in medicine.

**Teacher**: Sam asked if technology affects nature. What was his mother's response?

**Teacher**: Excellent. His mother explained that technology does affect nature and that we should conserve nature while progressing in development. We must find ways to balance progress with environmental responsibility.

**Teacher**: Why do you think conserving nature is important while we develop new technology?

**Teacher**: Great thoughts. Conserving nature ensures that we do not harm the environment while making progress. If we do not take care of nature, we might lose many natural resources that are essential for life.

**Teacher**: Well done, everyone. You have understood the story very well. Technology helps us progress, but we must also be responsible in the way we use it. Always remember that development and conservation should go hand in hand. Keep thinking about ways to balance both.

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

## Differentiated Activities

**110 km/hr**

Name one way in which technology has affected nature positively.

**80 km/hr**

Give one reason why we should conserve nature.

**40 km/hr**

What was Sam watching at the Science Centre?

## Home Task

Write down two ways in which we can balance technological advancements and environmental conservation. Then, name one action you can take in your daily life to help conserve nature.

# Period 3

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

SHOULD DO
5 MIN.

**Teacher**: Which type of pollution is caused by vehicles releasing smoke? (Air pollution)

**Teacher**: What is one source of noise pollution? (Loudspeakers)

**Teacher**: Which type of pollution affects marine life the most? (Water pollution)

**Teacher**: What can we do to reduce noise pollution? (Lower volume)

**Teacher**: Which type of pollution do factories contribute to when they release harmful gases? (Air pollution)

**Teacher**: Well done, everyone. Let us now move on to today's lesson.

(The teacher will read the last paragraph of page 62 and the table and first paragraph of page 63 aloud and provide explanations to ensure that the students understand the content.)

**ECOSYSTEM**

The living and non-living things around us form the environment. An ecosystem consists of both living and non-living things that interact with each othe

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**Teacher**: Let us begin by understanding what an ecosystem is. What do you understand by the term 'ecosystem'?

MUST DO
10 MIN.

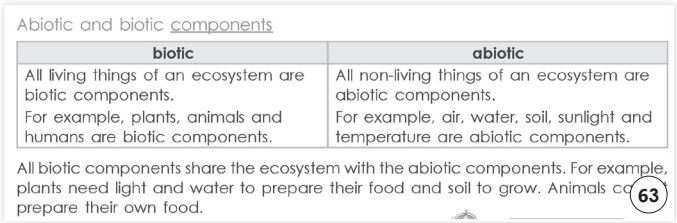
**Teacher**: Well done. An ecosystem consists of both living and non-living things that interact with each other. This means that all the plants, animals, air, water and soil in an area form an ecosystem together.

**Teacher**: Now, why do you think living and non-living things need to interact with each other?

**Teacher**: That is correct. Living things depend on non-living things for survival. Plants need sunlight, water and soil to grow, while animals need air and water to survive. This interaction keeps the ecosystem balanced.

## Discovering better

(Explain the term 'interact' given in the 'Discovering better' on page 62 of the Main Course Book.)


Abiotic and biotic components

| biotic | abiotic |
|---|---|
| All living things of an ecosystem are biotic components. For example, plants, animals and humans are biotic components. | All non-living things of an ecosystem are abiotic components. For example, air, water, soil, sunlight and temperature are abiotic components. |

All biotic components share the ecosystem with the abiotic components. For example, plants need light and water to prepare their food and soil to grow. Animals co
prepare their own food.

63

**Teacher**: Now, look at the table in your book that explains abiotic and biotic components. What are biotic components?

MUST DO
15 MIN.

**Teacher**: Excellent. All living things in an ecosystem are biotic components. This includes plants, animals and humans.

**Teacher**: What about abiotic components? What do they include?

**Teacher**: That is right. Non-living things like air, water, soil, sunlight and temperature are abiotic components. These are essential for the survival of all biotic components.

**Teacher**: Now, can you think of an example where abiotic and biotic components interact?

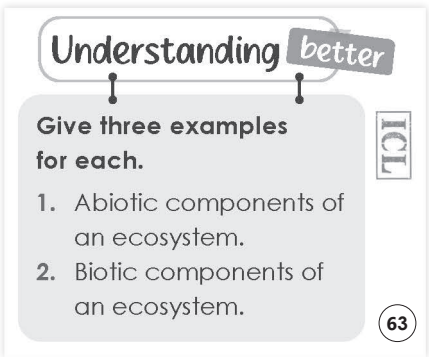
**Teacher**: Very good. Plants need sunlight and water to grow and animals depend on plants for food. This is how abiotic and biotic components are connected in an ecosystem.

**Teacher**: Well done, everyone. You have understood the relationship between living and non-living things in an ecosystem. Always remember that a balance between these components is necessary for life to be sustained.

## Discovering better


(Explain the term 'components' given in the 'Discovering better' on page 62 of the Main Course Book.)

## Understanding better




**Teacher**: Now, look at the 'Understanding better' section. Let us recall what we have learned. Give three examples of abiotic components of an ecosystem.

MUST DO
10 MIN.

**Teacher**: Well done. Air, water and sunlight are all abiotic components. These non-living elements are essential for life to exist in an ecosystem.

**Teacher**: Now, can you name three biotic components of an ecosystem?

**Teacher**: Excellent. Plants, animals and humans are biotic components. These living organisms interact with abiotic components to survive.

**Teacher**: Great work, everyone. You have a clear understanding of how living and non-living things make up an ecosystem. Keep observing the environment around you and think about how these components interact daily.

## Differentiated Activities

**110 km/hr**

What would happen if an ecosystem had only biotic components and no abiotic components?

**80 km/hr**

Name one abiotic component that helps plants grow.

**40 km/hr**

What do we call the living components of an ecosystem?

## Home Task

Write down two examples of how biotic and abiotic components interact in an ecosystem. Then, name one abiotic component that is necessary for both plants and animals to survive.

# Period 4

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

SHOULD DO
5 MIN.

**Teacher**: What do we call the living components of an ecosystem? (Biotic components)

**Teacher**: What is an example of an abiotic component? (Water)

**Teacher**: Why do plants need sunlight? (To make food)

**Teacher**: What do animals depend on for oxygen? (Air)

**Teacher**: What happens if there is no water in an ecosystem? (Living things cannot survive)

**Teacher**: Well done, everyone. Let us now move on to today's lesson.

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

**POLLUTION**

Pollution is the result of harmful things, such as smoke, trash or chemicals getting into the air, water or land. This can make the environment dirty and unhealthy for people, animals and plants. There are four types of pollution – water, air, land and noise pollution. 63

**Teacher**: Let us begin by understanding pollution. What is pollution? MUST DO 10 MIN.

**Teacher**: Well done. Pollution happens when harmful things like smoke, trash or chemicals enter the air, water or land. This makes the environment unhealthy for humans, animals and plants.

**Teacher**: What are the four types of pollution?

**Teacher**: Excellent. The four types of pollution are water pollution, air pollution, land pollution and noise pollution. Each type affects a different part of the environment.

**Teacher**: How does pollution affect living things?

**Teacher**: Good thinking. Pollution causes diseases in humans, harms animals and damages plants. That is why it is important to keep our surroundings clean.

Water pollution

The water in rivers, lakes, oceans and seas becomes polluted when waste from our homes, streets and factories flows into it. Polluted water is harmful for humans, plants and animals. It causes various kinds of diseases. 63

**Teacher**: Now, let us focus on water pollution. What causes water pollution? MUST DO 5 MIN.

**Teacher**: That is correct. Water pollution happens when waste from homes, streets and factories enters rivers, lakes and oceans.

**Teacher**: Why is polluted water harmful?

**Teacher**: Well said. Polluted water causes diseases in humans and harms plants and animals. Clean water is essential for all living beings.

Air pollution

Smoke from cars, buses, trucks and factories pollutes the air around us. The polluted air is dirty and poisonous. We fall sick and face many breathing problems due to polluted air. 63

**Teacher**: Let us now learn about air pollution. What are some sources of air pollution? MUST DO 10 MIN.

**Teacher**: Excellent. Smoke from cars, buses, trucks and factories pollutes the air.

**Teacher**: What happens when we breathe polluted air?

**Teacher**: That is right. Polluted air is dirty and poisonous. It can make us sick and cause breathing problems.

**Teacher**: How can we help reduce air pollution?

**Teacher**: Great answer. Reducing the use of vehicles, planting more trees and keeping factories under control can help keep the air clean.

Land pollution

Throwing garbage in open spaces causes land pollution. Mosquitoes and germs grow in the garbage and cause diseases. 63

**Teacher**: Now, let us talk about land pollution. What causes land pollution? MUST DO 10 MIN.

**Teacher**: Yes. Throwing garbage in open spaces causes land pollution. When waste is left in the open, mosquitoes and germs grow in it, leading to diseases.

**Teacher**: How does land pollution affect us?

**Teacher**: Good job. Dirty surroundings lead to the spread of illnesses and harm the environment.

**Teacher**: What can we do to reduce land pollution?

**Teacher**: Excellent. We should always dispose of waste properly, recycle materials and keep our surroundings clean.

**Teacher**: Well done, everyone. You have learned about the different types of pollution and how they affect us. Let us all take small steps to keep our environment clean.

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

## Differentiated Activities

**110 km/hr**

How does pollution affect humans and animals?

**80 km/hr**

Name one cause of air pollution.

**40 km/hr**

Name any one type of pollution.

## Home Task

Write down two effects of water pollution. Then, name one thing you can do at home to reduce water pollution.

# Period 5

**Teacher**: Great. Let us begin today's lesson with a quick game. I will ask some questions and you have to answer them. Ready? SHOULD DO 5 MIN.

**Teacher**: What type of pollution is caused by smoke from vehicles? (Air pollution)

**Teacher**: What happens when we throw waste into rivers? (Water pollution)

**Teacher**: Why should we not leave garbage in open spaces? (Causes diseases)

**Teacher**: What can we do to reduce pollution? (Keep surroundings clean)

**Teacher**: What type of pollution affects the quality of the air we breathe? (Air pollution)

**Teacher**: Well done, everyone. Let us now move on to today's lesson.

(The teacher will read the last two paragraphs of page 63 and the first paragraph of page 64 aloud and provide explanations to ensure that the students understand the content.

Noise Pollution

Noise pollution is when there are too many loud and unpleasant sounds around us, such as car horns, loud music or construction noises. 63

**Teacher**: Let us begin by learning about noise pollution. What is noise pollution?

MUST DO
5 MIN.

**Teacher**: Well done. Noise pollution happens when there are too many loud and unpleasant sounds around us, such as car horns, loud music or construction noises.

**Teacher**: Can noise pollution affect our health?

**Teacher**: That is correct. Noise pollution can cause stress, headaches and difficulty in concentrating. It is important to reduce unnecessary noise in our surroundings.

Pollution in cities and villages

In a city or a big town, air, noise and water pollution are caused. Air pollution is caused due to smoke coming out of vehicles, industries, construction of buildings and houses, etc. Noise pollution is caused due to honking, machinery in factories, loudspeakers, etc. Water pollution is caused due to industrial discharge of waste and chemicals, clogged drains, etc.

air pollution

63

In villages, farmers burn the leftovers of wheat crop to prepare the soil for the next crop. The smoke causes air pollution. People in villages use water from rivers, ponds and wells. Human activities, such as bathing and washing in these waterbodies, pollutes the water. 64

**Teacher**: Now, let us discuss pollution in cities and villages. What types of pollution are common in big cities?

MUST DO
20 MIN.

**Teacher**: Excellent. In cities, we see air, noise and water pollution. Air pollution happens because of smoke from vehicles, industries and construction work.

**Teacher**: What causes noise pollution in cities?

**Teacher**: That is right. Honking, loudspeakers and factory machines cause noise pollution in cities.

**Teacher**: How does water pollution happen in cities?

**Teacher**: Good thinking. Industrial waste and clogged drains release harmful chemicals into water bodies, polluting them.

**Teacher**: What about villages? How does pollution occur there?

**Teacher**: Well done. In villages, farmers burn crop remains, which releases smoke and causes air pollution. Also, people often use rivers and ponds for daily activities, which can pollute the water.

**Teacher**: Why do you think it is important to control pollution in both cities and villages?

**Teacher**: Great answer. Controlling pollution keeps the environment clean, protects human health and ensures that nature remains balanced.

## Understanding better

**Teacher**: Now, let us do the 'Understanding better' activity. I will read two statements and you have to tell me whether they are true or false. Let us begin.

Understanding better

Say true or false.

1. Smoke from vehicles cause land pollution.
2. Burning of remains of wheat crop do not causes air pollution.

ICL

64

**Teacher**: First statement: Smoke from vehicles causes land pollution. Is this true or false?

MUST DO
10 MIN.

**Teacher**: Well done. This is false. Smoke from vehicles causes air pollution, not land pollution.

**Teacher**: Second statement: Burning the remains of wheat crops does not cause air pollution. Is this true or false?

**Teacher**: That is correct. This is false. Burning crop remains produces smoke, which pollutes the air.

**Teacher**: Well done, everyone. You have learned about pollution in different places and its effects. Always remember that small actions can help keep our surroundings clean.

## Differentiated Activities

**110 km/hr**

How does burning crop remains affect air pollution?

**80 km/hr**

Name one source of noise pollution in cities.

**40 km/hr**

What type of pollution is caused by honking?

## Home Task

Write down two differences between pollution in cities and pollution in villages. Then, name one way we can reduce noise pollution in our surroundings.

# Period 6

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

SHOULD DO
5 MIN.

**Teacher**: What is one common cause of air pollution in cities? (Vehicle smoke)

**Teacher**: What happens when industries dump waste into rivers? (Water pollution)

**Teacher**: How does burning crops affect the environment? (Causes air pollution)

**Teacher**: What is one way to reduce noise pollution? (Lower the volume of loudspeakers)

**Teacher**: Why should we keep our surroundings clean? (To prevent pollution)

**Teacher**: Well done, everyone. Let us now move on to today's lesson.

THE 3Rs

We can reduce the amount of waste produced by us by following the three Rs – **Reduce**, **Reuse** and **Recycle**. 64

**Teacher**: Today, we will learn about how we can reduce waste. Look at the section on 'THE 3Rs' in your book. What are the three Rs?

MUST DO 5 MIN.

**Teacher**: Well done. The three Rs stand for Reduce, Reuse and Recycle. These help us to reduce the amount of waste we create and take care of the environment.

**Teacher**: Why do you think it is important to follow the three Rs?

**Teacher**: That is correct. Reducing waste helps protect nature and keeps our surroundings clean.

## Poster

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

MUST DO 5 MIN.

(Please display and discuss the posters prominently in the classroom to reinforce the learning about the 3 R's. Encourage students to observe the posters and discuss the 3 R's.)


**Teacher**: Great observation, everyone.

Reduce

Reduce means to minimise the use of certain materials, such as plastic, glass, etc. Things that cannot be recycled should be used very less. 64

**Teacher**: Now, let us learn about each of the three Rs in detail. Let us begin with 'Reduce'. What does reduce mean?

MUST DO 5 MIN.

**Teacher**: Well done. Reduce means to use certain materials less, such as plastic and glass. If something cannot be recycled, we should avoid using it too much.

**Teacher**: Can you think of one thing that we should use less to reduce waste?

**Teacher**: That is correct. We should use fewer paper napkins because they are used once and then thrown away, leading to more waste.

Reuse

Reuse means to use the items, which we are already using, again for different purposes. For example, we can use glass bottles or pots for plants or holding stationery items. 64

**Teacher**: Now, let us discuss 'Reuse'. What does reuse mean?

MUST DO 10 MIN.

**Teacher**: Excellent. Reuse means using things again instead of throwing them away. For example, glass bottles can be used as pots for plants or to store stationery.

**Teacher**: Can you give an example of something that can be reused at home?

**Teacher**: Great answer. Old clothes can be used as cleaning clothes instead of being thrown away.

Recycle

Recycle means to convert an item, which has already been used, into something new. By doing this, the already used item can be used again. For example, glass bottles and jars can be crushed, melted and changed into new glass products. 64

**Teacher**: Finally, let us talk about 'Recycle'. What does recycling mean?

MUST DO 10 MIN.

**Teacher**: Very good. Recycling means turning an old item into something new. This helps in reducing waste.

**Teacher**: Can you name one thing that can be recycled?

**Teacher**: That is right. Glass bottles and jars can be crushed, melted and made into new glass products.

**Teacher**: Well done, everyone. You now understand the importance of Reduce, Reuse and Recycle. If we follow these three Rs, we can help protect our environment and reduce waste.

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

## Differentiated Activities

**110 km/hr**

How does recycling help the environment?

**80 km/hr**

Name one item that can be reused.

**40 km/hr**

What do the three Rs stand for?

## Home Task

Write down two ways in which you can reduce waste at home. Then, name one item that you can recycle.

# Period 7

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

SHOULD DO 5 MIN.

**Teacher**: What do the three Rs stand for? (Reduce, Reuse, Recycle)

**Teacher**: What should we do with plastic bottles instead of throwing them away? (Reuse)

**Teacher**: What is the process of turning old items into new products called? (Recycling)

**Teacher**: Why should we use fewer plastic bags? (To reduce waste)

**Teacher**: How can we use an old glass jar in a new way? (Reuse as a container)

**Teacher**: Well done, everyone. Let us now move on to today's lesson.

## Connecting better

**Teacher**: Let us begin with a quick math connection. Sam and his mum went to the nursery and bought two plants. The sunflower cost ₹50 and the cactus cost ₹100. Mum asked Sam how much they paid in total. What was his answer?

MUST DO
5 MIN.


**Teacher**: Well done. Sam correctly answered ₹150. Adding the prices of the two plants, ₹50 + ₹100 gives us ₹150. This shows how we use maths in everyday life.

## Knowing better

**Teacher**: Now, let us learn about an interesting scientific discovery. A group of Indian scientists from IIT, Ropar, created an instrument called 'Ubreath Life'. What kind of instrument is it?

MUST DO
5 MIN.


**Teacher**: Excellent. It is a living plant-based air purifier. This shows how science and nature can work together to improve air quality.

## Laughing better

**Teacher**: Now, let us have some fun with a joke. Hopper asks, "Why did pollution refuse to go away?" What do you think Diley answered?

MUST DO
5 MIN.


**Teacher**: That is correct. Diley said, "Because it liked being in the environment too much." That was a clever joke, but it also reminds us that pollution is a serious issue that we need to control.

## Giving better

**Teacher**: Now, let us talk about keeping our surroundings clean. Why is it important to always throw garbage in the dustbin and not outside?

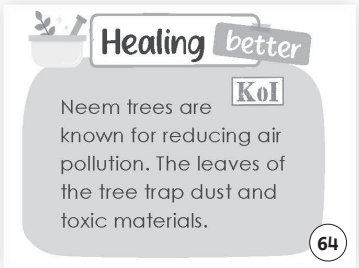
MUST DO
5 MIN.


**Teacher**: Well said. When we throw waste in the dustbin, it goes to the right place for proper disposal. But if we throw it outside, it can make the area dirty, attract insects and animals and even spread diseases. Keeping our house clean and throwing waste in dustbins prevents pollution and keeps the environment healthy.

## Healing better

**Teacher**: Did you know that trees help reduce air pollution? Neem trees are known for reducing air pollution. How do their leaves help clean the air?

MUST DO
5 MIN.

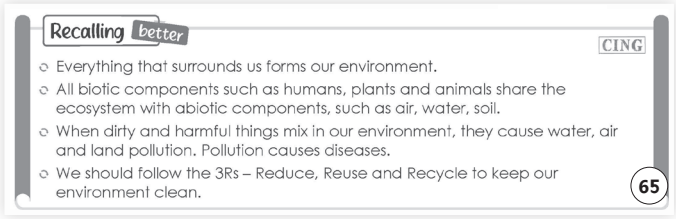



**Teacher**: That is right. The leaves of neem trees trap dust and toxic materials, helping to clean the air. Trees play an important role in keeping the environment healthy.

## Recalling better

**Teacher**: Now, let us recall what we have learned. What forms our environment?

MUST DO
10 MIN.


Recalling better

CING

- Everything that surrounds us forms our environment.
- All biotic components such as humans, plants and animals share the ecosystem with abiotic components, such as air, water, soil.
- When dirty and harmful things mix in our environment, they cause water, air and land pollution. Pollution causes diseases.
- We should follow the 3Rs – Reduce, Reuse and Recycle to keep our environment clean.

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**Teacher**: Well done. Everything around us forms our environment.

**Teacher**: How do biotic and abiotic components share an ecosystem?

**Teacher**: Excellent. Humans, plants and animals (biotic components) share the ecosystem with air, water and soil (abiotic components).

**Teacher**: What happens when dirty and harmful things mix in our environment?

**Teacher**: That is correct. It causes water, air and land pollution, leading to diseases.

**Teacher**: What can we do to keep our environment clean?

**Teacher**: Great answer. We should follow the 3Rs – Reduce, Reuse and Recycle – to take care of our environment.

**Teacher**: Well done, everyone. You have learned some important facts today. Keep thinking about how small actions can make a big difference in protecting our planet.

You may start the **Animated Activities** and **Quiz** on the digital platform.

## Differentiated Activities

**110 km/hr**

How do neem trees help in reducing pollution?

**80 km/hr**

What is the name of the plant-based air purifier invented by IIT Ropar?

**40 km/hr**

What should we do with garbage to keep our surroundings clean?

## Home Task

Write down two ways in which trees help the environment. Then, name one action you can take at home to keep your surroundings clean.

# Period 8

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

SHOULD DO

5 MIN.

**Teacher**: What forms our environment? (Everything around us)

**Teacher**: What does the neem tree help reduce? (Air pollution)

**Teacher**: What is the name of the newly invented scientific instrument that uses plants to purify the air? (Ubreath Life)

**Teacher**: Why should we throw waste in the dustbin? (To keep the environment clean)

**Teacher**: What are the 3 Rs that help reduce waste? (Reduce, Reuse, Recycle)

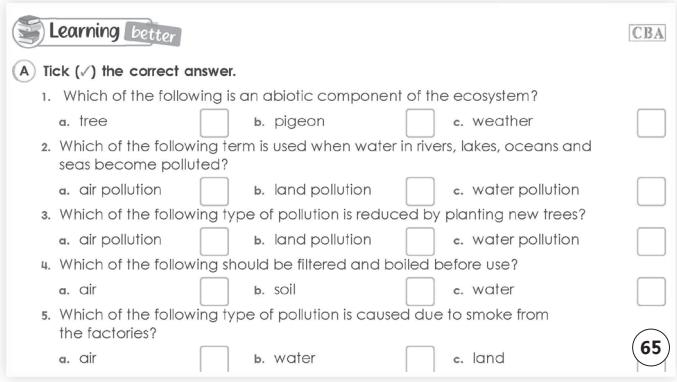
**Teacher**: Well done, everyone. Let us now move on to today's lesson.

## Learning better

**Teacher**: Everyone, please open page 65 of your Main Coursebook. In Exercise 'A' of 'Learning better' you have to tick the correct answer. Are you ready to get started?

MUST DO

5 MIN.


Learning better

CBA

(A) Tick (✓) the correct answer.

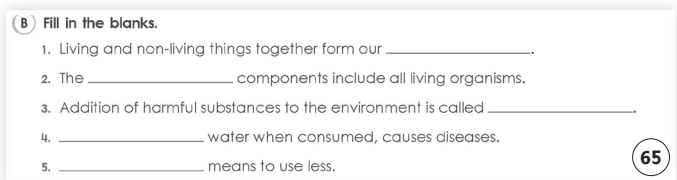
1. Which of the following is an abiotic component of the ecosystem?
   a. tree ☐ b. pigeon ☐ c. weather ☐
2. Which of the following term is used when water in rivers, lakes, oceans and seas become polluted?
   a. air pollution ☐ b. land pollution ☐ c. water pollution ☐
3. Which of the following type of pollution is reduced by planting new trees?
   a. air pollution ☐ b. land pollution ☐ c. water pollution ☐
4. Which of the following should be filtered and boiled before use?
   a. air ☐ b. soil ☐ c. water ☐
5. Which of the following type of pollution is caused due to smoke from the factories?
   a. air ☐ b. water ☐ c. land ☐

65

**Teacher**: Great. Let us begin with the first question. Which of the following is an abiotic component of the ecosystem?

**Teacher**: The correct answer is weather. Well done.

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


(B) Fill in the blanks.

1. Living and non-living things together form our _____.
2. The _____ components include all living organisms.
3. Addition of harmful substances to the environment is called _____.
4. _____ water when consumed, causes diseases.
5. _____ means to use less.

65

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

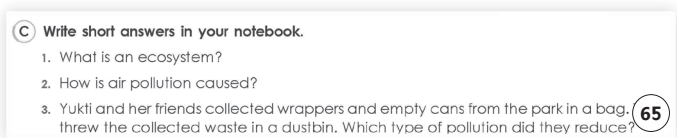
MUST DO

5 MIN.

**Teacher**: Great. Let us begin with the first question. Living and non-living things together form our_____.

**Teacher**: Yes. It is the environment.

(Similarly complete all five questions)


(C) Write short answers in your notebook.

1. What is an ecosystem?
2. How is air pollution caused?
3. Yukti and her friends collected wrappers and empty cans from the park in a bag. They threw the collected waste in a dustbin. Which type of pollution did they reduce?

65

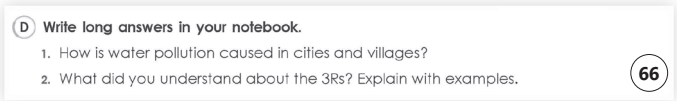
**Teacher**: Let us explore some short-answer questions. In Exercise 'C' of the 'Learning better' section, you have to write a short answer. Are you ready to get started?

MUST DO
10 MIN.

**Teacher**: Great. Let us begin with the first question. What is an ecosystem?

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

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


D Write long answers in your notebook.
1. How is water pollution caused in cities and villages?
2. What did you understand about the 3Rs? Explain with examples.
66

**Teacher**: Let us explore some long-answer questions. In Exercise 'D' of the 'Learning better', you have to write a long answer. Let us begin with the first question. How is water pollution caused in cities and villages?

MUST DO
15 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 and discuss the correct answer with the class.)

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

You may show the **Toys from Trash** on the digital platform.

## Differentiated Activities

**110 km/hr**

How do biotic and abiotic components interact in an ecosystem?

**80 km/hr**

Name one way in which trees help reduce pollution.

**40 km/hr**

What should we do to keep our environment clean?

## Home Task

Complete the 'Creating better' activity (Make a new, handmade sheet from old newspapers.) given on page 66 of the Main Course Book.

# Period 9

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

SHOULD DO
5 MIN.

**Teacher**: What forms our environment? (Living and non-living things)

**Teacher**: Name one abiotic component of an ecosystem. (Water)

**Teacher**: What should we do with garbage to keep our surroundings clean? (Throw it in the dustbin)

**Teacher**: How do biotic and abiotic components depend on each other? (Biotic components need abiotic components to survive)

**Teacher**: What is one way to reduce pollution? (Recycle materials)

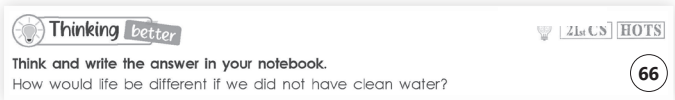
**Teacher**: Well done, everyone. Let us now move on to today's lesson.

## Thinking better

**Teacher**: Let us begin with a question to make us think deeply. How would life be different if we did not have clean water? Think and write the answer in your notebook.

MUST DO
10 MIN.

(Let the students write answers in their notebook.)


Thinking better
LSC HOTS
Think and write the answer in your notebook.
How would life be different if we did not have clean water?
66

**Teacher**: Well done. Without clean water, people would fall sick, animals would suffer and plants would not grow properly. Water is essential for survival.

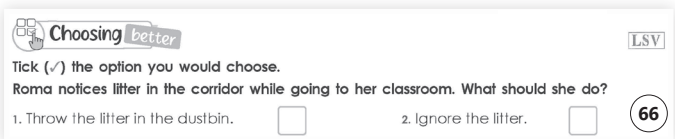
**Teacher**: What can we do to ensure that water remains clean and safe for everyone?

**Teacher**: That is correct. We should avoid wasting water, prevent throwing waste into water bodies and spread awareness about the importance of clean water.

## Choosing better

**Teacher**: Now, let us make a choice. Roma notices litter in the corridor while going to her classroom. What should she do? Should she throw the litter in the dustbin or ignore it?

MUST DO
5 MIN.

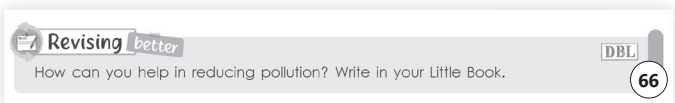

Choosing better
LSV
Tick (✓) the option you would choose.
Roma notices litter in the corridor while going to her classroom. What should she do?
1. Throw the litter in the dustbin. ☐ 2. Ignore the litter. ☐
66

**Teacher**: Excellent. Throwing litter in the dustbin is the right choice. Keeping our surroundings clean helps in reducing pollution.

## Revising better

**Teacher**: Now, let us recall. How can you help in reducing pollution?

MUST DO
5 MIN.


Revising better
DBL
How can you help in reducing pollution? Write in your Little Book.
66

**Teacher**: Great ideas. We can help in reducing pollution by walking or cycling instead of using a car for short

distances, saving electricity, throwing waste in dustbins and using reusable bags. These small actions can make a big difference in keeping our environment clean and healthy.

## Pledging better

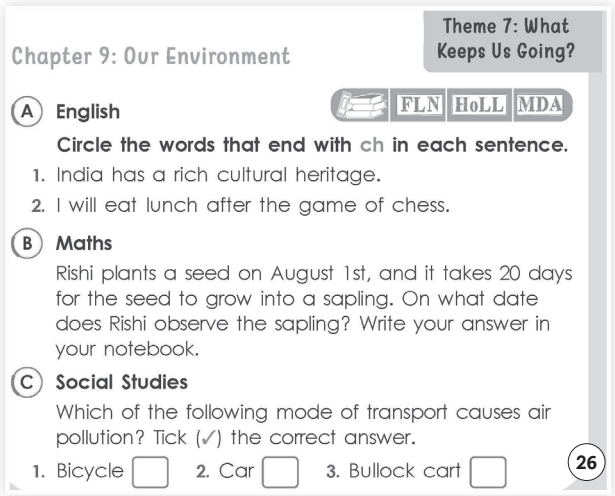
**Teacher**: Now, let us make a pledge. Say after me: "In my own little way, I pledge to not litter."

MUST DO

5 MIN.


**Teacher**: Well done. Keeping our surroundings clean is our responsibility. Small actions like this can help in achieving SDG 6 – Clean Water and Sanitation.

## Book of Holistic Teaching




MUST DO

10 MIN.

(Refer to the Book of Holistic Teaching, page number 26 under the title 'Our Environment.' 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.)

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

## Differentiated Activities

**110 km/hr**

How does water pollution affect human health?

**80 km/hr**

Name one way to keep water clean.

**40 km/hr**

Where should we throw litter?

## Home Task

The Project Idea, given in the book of Project Ideas, page 15 under the title 'Our Environment.' This project should be assigned to the students as a home task to work on. Ensure that the students understand the project requirements and provide any necessary guidance or materials they might need.

# Period 10

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

SHOULD DO

5 MIN.

**Teacher**: What happens if we do not have clean water? (People fall sick)

**Teacher**: What should we do with waste materials? (Throw them in the dustbin)

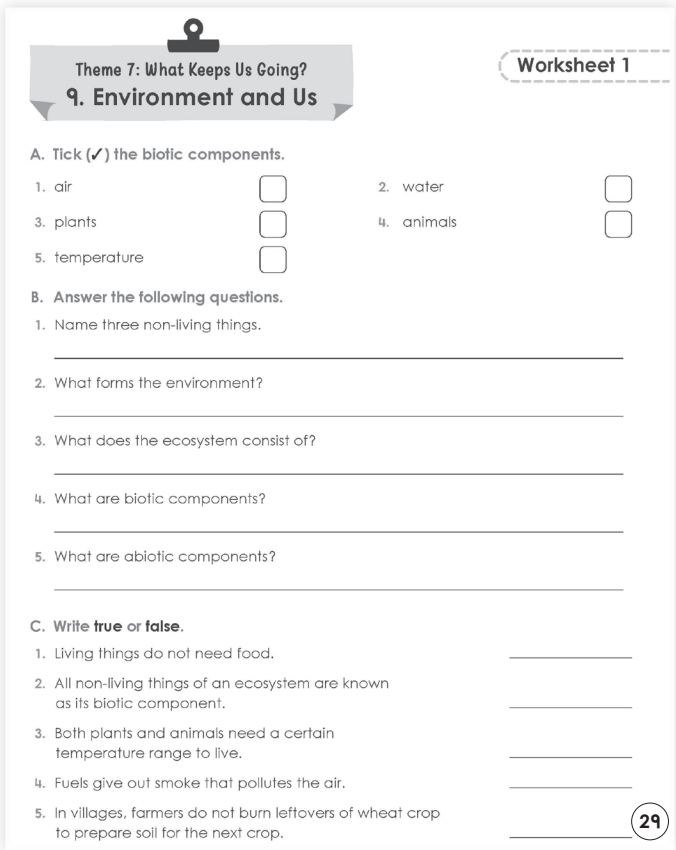
**Teacher**: What is one way to reduce pollution? (Recycle materials)

**Teacher**: Why should we not ignore litter on the ground? (It makes the environment dirty)

**Teacher**: What does the Tulsi tree help reduce? (Air pollution)

**Teacher**: Well done, everyone. Let us now move on to today's lesson.

**Worksheet 1**



**Teacher**: Let us do some activities from the workbook. Everybody, please open page 29 of your workbook and answer the questions given in worksheet - 1.

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.)

**Worksheet 2**

Worksheet 2

A. **Answer the following questions.**

1. What human activities pollute the water?
2. What are the 3R's?
3. What does reduce mean?
4. What does reuse mean?
5. What does recycle mean?

B. **Fill in the blanks.**

1. Polluted water when consumed causes _____.
2. We may fall sick if we breathe in _____ air.
3. Throwing garbage in open spaces causes _____ pollution.
4. Mosquitoes and germs grow in the _____ and cause diseases.
5. Vehicles run on _____.

C. **Write true or false.**

1. Many people in our country live in cities. _____
2. In a village, there are very few cars and buses on the road. _____
3. Polluted water should be filtered and boiled before drinking. _____
4. We should buy more than we need. _____
5. Reduce means to use things again. _____

30

**Teacher**: Let us do some activities from the worksheet - 2. Everybody, please open page 30 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.)

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

## Book of Project Ideas

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

COULD DO
10 MIN.

Theme 7: What Keeps Us Going?

### Chapter 9: Our Environment

ICT PRO 21st CS

**Make a picture of clean environment using computer program.**

- Click on the **Start menu** in your computer and search for computer program and open it.
- Use the **Rectangle Tool** to draw a big blue rectangle at the top for the sky.
- Draw a green rectangle at the bottom for the ground
- Use the **Brush Tool** to draw a stick figure of yourself with a circle for your head, a straight line for your body, and lines for your arms and legs.
- Give yourself eyes, a smile, and some clothes. Use the **Circle Tool** to draw two wheels for your bicycle.
- Connect the wheels with lines to make the bicycle frame. Add a seat, handlebars, and pedals.
- Use the **Brush Tool** or **Shape Tool** to draw trees with brown trunks and green leaves.
- Draw small plants or flowers using different colours. Use the **Rectangle Tool** to draw a trash bin and put small pieces of trash next to it to show you are cleaning up.
- Draw another rectangle for a recycling bin and add the recycling symbol on it.
- Then, draw a yellow Sun using the **Circle Tool** and fluffy white clouds with the **Brush Tool**.

15

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

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

SHOULD DO
5 MIN.

(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 Activities

**110 km/hr**

How does improper waste disposal affect water bodies?

**80 km/hr**

How can we reduce noise pollution in our surroundings?

**40 km/hr**

What should we do if we see litter on the ground?

## Home Task

Complete worksheet – 3 given on page 31 of the workbook.

## Learning Outcomes

**The students will:**

| Domain | Learning Outcome |
|---|---|
| **Physical Development** | • demonstrate coordination and fine motor skills while creating handmade recycled paper using guided steps. |
| **Socio-Emotional and Ethical Development** | • show awareness and responsibility by choosing actions that reduce pollution and conserve resources. |
| **Cognitive Development** | • identify sources of pollution, explain the difference between biotic and abiotic components and apply the concept of the 3Rs to real-life situations. |
| **Language and Literacy Development** | • read informational text, respond to comprehension questions and express their understanding through written formats such as short answers, long answers and fill-in-the-blanks. |
| **Aesthetic and Cultural Development** | • appreciate the importance of trees and traditional environmental solutions, such as natural air purifiers, in Indian culture. |
| **Positive Learning Habits** | • adopt sustainable habits such as using dustbins, conserving clean water and reducing the use of non-recyclable materials. |

**Starry Knights**

Are you contented after teaching this unit? Were you able to help the learners understand fractions? What fraction of your class, you think, can score the most on this topic?

Give yourself a STAR.

# Lesson-10: Water and Air



10 Periods (40 minutes each)

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

Animation, Animated Activities, Concept Map, Dictionary, Diagram, eBook, Quiz, Slideshow, Toys from Trash, Test Generator

Affirming better: I am connected to nature.

## Curricular Goals and Objectives (NCF)

**To enable the students:**

- to understand the importance and uses of water and air in daily life.
- to identify different forms of water and explain the water cycle.
- to recognise the causes of water scarcity and ways to conserve water.
- to show responsible behaviour towards the environment through daily actions.

## Methodology

### Period 1

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

SHOULD DO — 5 MIN.

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

**Teacher**: Sit comfortably in your chair, with your back straight and feet flat on the ground. Close your eyes gently and take a deep breath through your nose. Hold it for a moment, then slowly breathe out through your mouth.

Let us do these three more times. Breathe in... and breathe out. As you breathe, imagine your mind becoming clear and ready to learn.

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

#### Confirming better


**Teacher**: Before we start the class, let us all say something positive together: 'I am connected to nature.' Repeat after me: 'I am connected to nature.'

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

MUST DO — 5 MIN.

| K | W | L |
|---|---|---|
| | | |

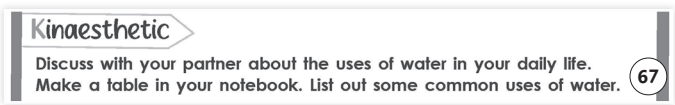
**Teacher**: Let us start by filling out the 'K' and 'W' columns. Take a few minutes to think and write. If you have any questions, feel free to ask.

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

#### Kinaesthetic

**Teacher**: Let us begin with the 'Kinaesthetic' part. Discuss the uses of water in your daily life with your partner.

MUST DO — 10 MIN.




**Teacher**: Now, make a table in your notebook. List some common uses of water.

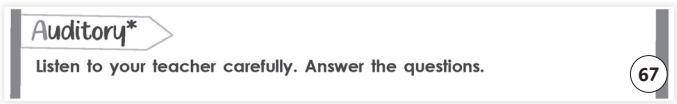
(Give time to the students to write and discuss.)

**Teacher**: Wonderful effort. I see many of you discussing the usage of water in cleaning, cooking, bathing and drinking. That is excellent. Keep it up.

## Auditory

**Teacher**: Let us start the auditory activity. Listen carefully to me. I will ask you some questions and I want you to pay attention to every detail before answering. Are you ready?

MUST DO
10 MIN.




**Teacher**: During a visit to her friend's house, Aisha saw a big tank and asked, 'What is that tank for?' Her friend replied, 'We collect rainwater in it using pipes from our roof. We can use this water to water plants and wash things.' How does Aisha's friend collect rainwater?

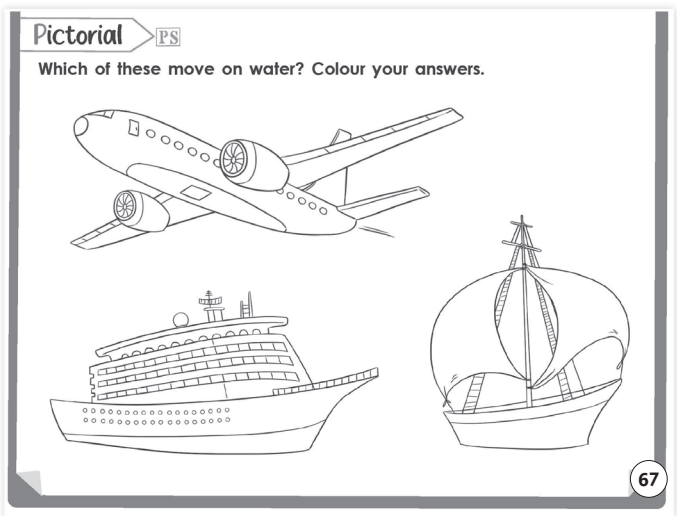
(Waits for student responses.)

**Teacher**: Fantastic answers. You were all listening carefully. Now, let us move to the next activity.

## Pictorial

**Teacher**: Now let us begin the 'Pictorial' part. Look at these three pictures given on page 67 of your Main Coursebook.

MUST DO
10 MIN.




**Teacher**: Which of these moves on water?

**Teacher**: Circle your answers and then colour them.

(Let the students observe the pictures and colour them. Discuss the correct answer with the class.)

**Teacher**: Good observation, everyone. Keep going.

## Differentiated Activities

**110 km/hr**

Why must we use water carefully in our daily lives?

**80 km/hr**

Name one advantage of using water transport.

**40 km/hr**

Name two daily activities where water is used.

## Home Task

Write two uses of water in your home. Then, draw one object that uses water to work.

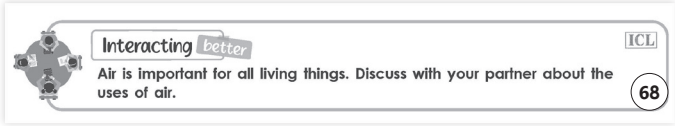
# Period 2

## Interacting better

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

**Teacher**: Great. Let us do an interesting activity. Pair up with your partner and discuss why air is important for all living things. Try to think of at least three uses of air from your daily life or things you observe around you.

MUST DO
10 MIN.




**Teacher**: That is right. Air helps us breathe, keeps us alive and is used in many other ways. Well done, everyone.


**Teacher**: Everyone, open your books and look at the picture story given on page 68 of your Main Coursebook. Read it silently to yourself. Look at the pictures and try to understand what Sam and her mother are doing and saying.

MUST DO
30 MIN.

(Let the students read the story.)

**Teacher**: Now that you have read the story, let me ask you a few questions.

**Teacher**: Why did Sam's mother call out to her from the window?

**Teacher**: Well done. She called out because Sam had left the water running after watering the plants.

**Teacher**: What did Sam forget to do after watering the plants?

**Teacher**: That is correct. Sam forgot to turn off the tap and water was being wasted.

**Teacher**: What important message does Sam's mother give her about air and water?

**Teacher**: Excellent. She reminded Sam that we should conserve water. And that air, water and everything around us helps us live and grow.

**Teacher**: Why is it important to turn off the tap when we are not using water?

**Teacher**: Very good. Turning off the tap saves water and helps make sure we have enough for the future.

**Teacher**: What could happen if we keep wasting water?

**Teacher**: You are right. If we waste water, there may not be enough left for others or for our future needs.

**Teacher**: I am really impressed with your answers. You have understood why it is important to save water. Keep thinking and making responsible choices.

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

## Differentiated Activities

**110 km/hr**

Why should we use only the amount of water we need?

**80 km/hr**

Name one way to avoid wasting water at home.

**40 km/hr**

Should we keep the tap open when not in use?

## Home Task

Write two ways you can save water at home. Then, draw one picture showing a person using water carefully.

# Period 3

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

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

SHOULD DO

5 MIN.

**Teacher**: Name one reason why water is important for living things. (Drinking)

**Teacher**: Which type of transport uses water to move? (Water transport)

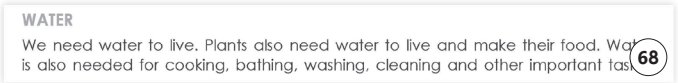
**Teacher**: Give one way to save water at home. (Turn off the tap)

**Teacher**: Should we use more water than needed? (No)

**Teacher**: What happens if people waste water everywhere? (There will be less water for all)

**Teacher**: Well done, everyone. Let us now move ahead with the lesson.

(The teacher will read the last paragraph of page 68 and the first and second paragraph of page 69 aloud and provide explanations to ensure that the students understand the content.)



WATER

We need water to live. Plants also need water to live and make their food. Wa
is also needed for cooking, bathing, washing, cleaning and other important tas

68

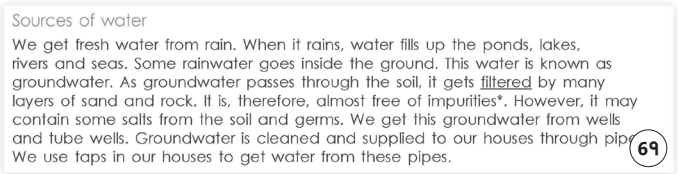
**Teacher**: Let us start today's lesson with something we all use every day. Can you guess what it is?

MUST DO

5 MIN.

**Teacher**: Yes, it is water. Think and tell me, why do we need water?

**Teacher**: That is wonderful. We need water to live and we use it for cooking, bathing, washing, cleaning and even helping plants make their food. Great thinking.



Sources of water

We get fresh water from rain. When it rains, water fills up the ponds, lakes, rivers and seas. Some rainwater goes inside the ground. This water is known as groundwater. As groundwater passes through the soil, it gets filtered by many layers of sand and rock. It is, therefore, almost free of impurities*. However, it may contain some salts from the soil and germs. We get this groundwater from wells and tube wells. Groundwater is cleaned and supplied to our houses through pip
We use taps in our houses to get water from these pipes.

69

**Teacher**: Now let us look at the section called 'Sources of water'.

MUST DO

15 MIN.

**Teacher**: Where does fresh water come from?

**Teacher**: That is absolutely right. Rain gives us fresh water. It fills ponds, lakes, rivers and even seas.

**Teacher**: What happens to some rainwater that goes into the ground?

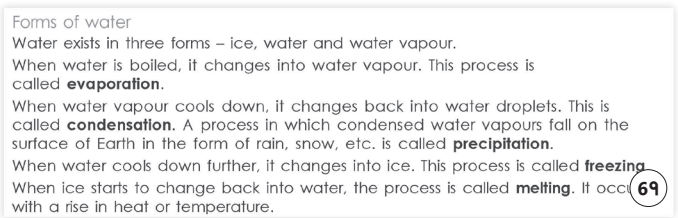
**Teacher**: Yes, it becomes groundwater. Fantastic.

**Teacher**: As it moves through the soil, what happens to this groundwater?

**Teacher**: Very well said. It gets filtered by sand and rock layers and becomes almost free of impurities.

**Teacher**: Where do we get this groundwater from?

**Teacher**: Excellent. We get it from wells and tube wells. It is cleaned and brought to our homes through pipes and taps.



Forms of water

Water exists in three forms – ice, water and water vapour.

When water is boiled, it changes into water vapour. This process is called **evaporation**.

When water vapour cools down, it changes back into water droplets. This is called **condensation**. A process in which condensed water vapours fall on the surface of Earth in the form of rain, snow, etc. is called **precipitation**.

When water cools down further, it changes into ice. This process is called **freezing**.

When ice starts to change back into water, the process is called **melting**. It occ
with a rise in heat or temperature.

69

**Teacher**: Now let us explore something interesting – the forms of water. How many forms of water are there?

MUST DO

15 MIN.

**Teacher**: Well done. Water exists in three forms – ice, water and water vapour.

**Teacher**: What do we call the process when water changes into vapour?

**Teacher**: Great answer. That is evaporation.

**Teacher**: What happens when vapour cools down into droplets?

**Teacher**: Yes, that is condensation.

**Teacher**: When this water falls to Earth as rain or snow, what do we call it?

**Teacher**: Correct. That is precipitation. Excellent memory.

**Teacher**: What happens when water becomes ice?

**Teacher**: Right again. That process is called freezing.

**Teacher**: And when the ice melts back into the water?

**Teacher**: You got it. That is melting. I love how well you are all connecting the ideas. Great work, everybody. Keep it up.

## Differentiated Activities

**110 km/hr**

Which process turns water vapour into water droplets in the air?

**80 km/hr**

Name one source of water found in nature.

**40 km/hr**

What is the form of water that we drink?

## Home Task

Write the three forms of water. Then, in two sentences, explain how rainwater becomes groundwater.

# Period 4

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

**Teacher**: Let us begin with a quick warm-up. I will ask you a few questions. Be ready to answer quickly.

SHOULD DO

5 MIN.

**Teacher**: What are the three forms of water? (Ice, water, water vapour)

**Teacher**: What is the process where water changes into vapour? (Evaporation)

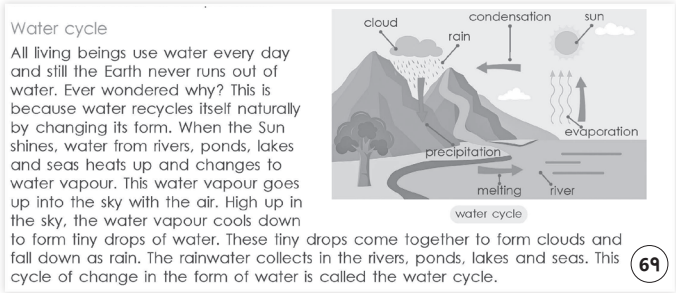
**Teacher**: How do we collect groundwater in our homes? (Through pipes and taps)

**Teacher**: What is the name of the process when water turns into ice? (Freezing)

**Teacher**: What do we call the water that falls as rain or snow? (Precipitation)

**Teacher**: Excellent. Let us now move ahead with the lesson.

(The teacher will read the second-last paragraph of page 69 aloud and provide explanations to ensure that the students understand the content.)



Water cycle

All living beings use water every day and still the Earth never runs out of water. Ever wondered why? This is because water recycles itself naturally by changing its form. When the Sun shines, water from rivers, ponds, lakes and seas heats up and changes to water vapour. This water vapour goes up into the sky with the air. High up in the sky, the water vapour cools down to form tiny drops of water. These tiny drops come together to form clouds and fall down as rain. The rainwater collects in the rivers, ponds, lakes and seas. This cycle of change in the form of water is called the water cycle.



69

**Teacher**: Let us dive into something really fascinating today – the water cycle. Look at the section titled 'Water cycle' and read it quietly. Make sure to notice how water keeps moving and changing its form.

MUST DO

25 MIN.

**Teacher**: Have you ever wondered why the Earth never runs out of water?

**Teacher**: That is a thoughtful answer. It is because water keeps recycling itself naturally. Amazing, is it not?

**Teacher**: What do you think happens when the Sun shines on water in rivers, ponds and seas?

**Teacher**: Absolutely right. The water heats up and turns into water vapour. Great observation.

**Teacher**: And where does this water vapour go?

**Teacher**: Yes, it rises up into the sky along with the air. You are paying close attention.

**Teacher**: Now think – what happens to the water vapour high in the sky?

**Teacher**: Very well said. It cools down and becomes tiny drops of water.

**Teacher**: When these drops come together, what do they form?

**Teacher**: That is correct. They form clouds. And what do clouds give us when they are full?

**Teacher**: Rain. Perfect. The rainwater falls back into rivers, lakes and seas. This whole journey is what we call the water cycle.

**Teacher**: You explained each step so clearly. I am really impressed. Let us now look at how the poster shows all these changes.

## Poster

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

**Teacher**: Everyone, look at the poster on the right side. Follow the arrows and words shown. This picture is a visual of everything we just read.

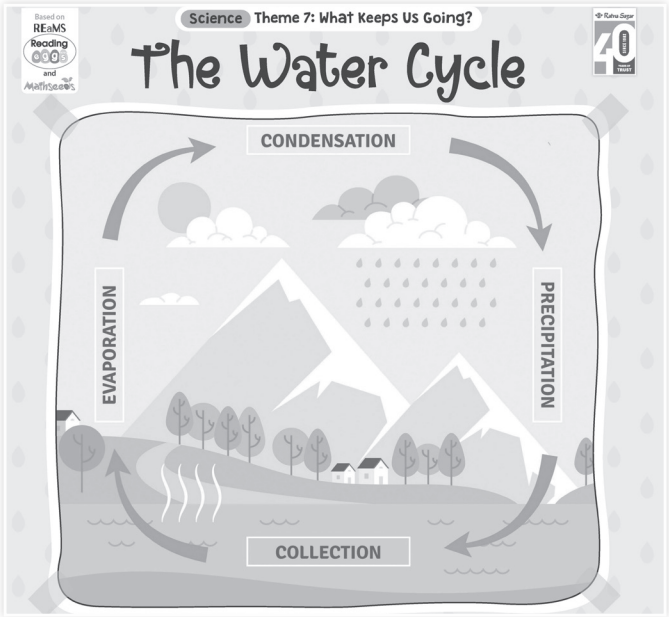
**Teacher**: Can you point out where evaporation is shown?

**Teacher**: Well spotted. That is the place where water is rising into the air.

**Teacher**: What about condensation? Where is that happening?

**Teacher**: Yes, in the clouds forming above. Excellent.

**Teacher**: What do we call the water falling down from clouds?




**Teacher**: That is precipitation. You are using the exact word. Fantastic.

MUST DO
10 MIN.

**Teacher**: You are connecting the diagram and the text so well.

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

## Differentiated Activities

**110 km/hr**

What is the main source of heat that starts the water cycle?

**80 km/hr**

What do small water drops form when they come together?

**40 km/hr**

What falls from the sky as rain?

## Home Task

Draw the water cycle and label any four stages of it. Write five sentences explaining the complete water cycle.

# Period 5

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

**Teacher**: Let us begin with a quick warm-up. I will ask you a few questions. Be ready to answer quickly.

SHOULD DO
5 MIN.

**Teacher**: What turns water into vapour in the water cycle? (Sun/Heat)

**Teacher**: What rises into the sky after water gets heated? (Water vapour)

**Teacher**: What forms when vapour cools down? (Tiny drops of water)

**Teacher**: What do we call water falling from the clouds? (Precipitation)

**Teacher**: What is the name of the process in which water changes form and moves in a cycle? (Water cycle)

**Teacher**: Brilliant. Let us now move ahead with the lesson.

(The teacher will read the last paragraph of page 69 and the first and second paragraphs of page 70 aloud and provide explanations to ensure that the students understand the content.)

### Water scarcity

In some parts of our country, there is very little rainfall. This leads to shortage of water. The shortage of water is known as water scarcity. Due to less rainfall, the river and ponds dry up and groundwater level depletes. This not only creates water shortage for animals and plants, but also causes problem for irrigation* of crops, which ultimately leads to shortage of food. So, water scarcity has a major and wide impact.

69

**Teacher**: Let us begin with the section titled 'Water scarcity'.

MUST DO
10 MIN.

**Teacher**: What happens in some parts of our country when there is very little rainfall?

**Teacher**: Well said. That leads to water scarcity, which means there is a shortage of water.

**Teacher**: How does less rainfall affect rivers, ponds and groundwater?

**Teacher**: Yes, they dry up and the groundwater level depletes. You are following this well.

**Teacher**: What problems are caused by water scarcity?

**Teacher**: Correct. It affects animals, plants, irrigation and even food supply. Excellent understanding.

## Discovering better

### Discovering better

LAD

**filtered:** (here, for a liquid) passed through something to remove impurities

**depletes:** to reduce something until little or nothing is left

**scarcity:** shortage of something

**impact:** here, changes that happen because there is not enough water

69

(Explain the terms mentioned in 'Discovering better' on page 69 of the Main Coursebook.)

We can save water by keeping the following things in mind:

1. use water that was used to wash vegetables or fruits to water your plants
2. turning off the taps after use
3. using a bucket and mug to bathe instead of taking a shower
4. fixing leaking pipes
5. collecting rainwater in big containers for later use
6. using river water, instead of tube wells, for irrigation

69

**Teacher**: Let us now discuss the different ways in which we can conserve water.

MUST DO 10 MIN.

**Teacher**: What is one way we can reuse water at home?

**Teacher**: That is right. We can use water used for washing vegetables to water plants.

**Teacher**: What is one thing we should always do after using water?

**Teacher**: Exactly. Turn off the tap after use.

**Teacher**: Which method can we follow while bathing to save more water?

**Teacher**: Great. Using a bucket and mug instead of a shower saves more water.

**Teacher**: What else can we do to stop water wastage?

**Teacher**: Fixing leaking pipes is very important. Keep going, these are useful ideas.

Rainwater harvesting

Rainwater harvesting is a simple method of saving rainwater for later use. In this method, people collect rainwater in big containers, drums or storage tanks. This water is then filtered and used for bathing, washing and watering plants.

70

**Teacher**: What is rainwater harvesting?

MUST DO 10 MIN.

**Teacher**: Correct. It is a simple method of saving rainwater for later use.

**Teacher**: How do people collect rainwater in this method?

**Teacher**: Yes, they collect it in big containers, drums or storage tanks.

**Teacher**: What happens to the rainwater after it is collected?

**Teacher**: Correct. It is filtered and used again.

**Teacher**: And where can this filtered rainwater be used?

**Teacher**: Wonderful. It can be used for bathing, washing and watering plants.

**Teacher**: Excellent understanding. You have learned a very important way to save water today.

## Understanding better

**Teacher**: Let us now do the 'Understanding better' activity. I will read each statement and then we say if it is true or false.

**Teacher**: Statement one – 'Water recycles itself naturally by changing its form.'

**Teacher**: This statement is true. Water changes from one form to another in the water cycle and that is how it recycles itself naturally.

Understanding better

**State true or false.**

1. Water recycles itself naturally by changing its form.
2. We should collect rainwater to save water.

ICL

70

**Teacher**: Statement two – 'We should collect rainwater to save water.'

MUST DO 5 MIN.

**Teacher**: This statement is also true. By collecting rainwater, we can store and use it later for bathing, washing and watering plants.

**Teacher**: You have understood both statements very well. Keep thinking and learning like this.

## Differentiated Activities

**110 km/hr**

What happens when the groundwater level depletes?

**80 km/hr**

Name one method to save water at home.

**40 km/hr**

What should we do after using the tap?

## Home Task

Write any three ways to save water at home. Then, draw a picture of rainwater harvesting showing a drum or container.

# Period 6

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

**Teacher**: Let us begin with a quick warm-up. I will ask you five questions. Think and answer clearly.

SHOULD DO 5 MIN.

**Teacher**: What do we call the shortage of water in some areas? (Water scarcity)

**Teacher**: Name one daily habit that helps us save water. (Turning off the tap after use)

**Teacher**: What is one effect of water scarcity on farming? (Problem in irrigation)

**Teacher**: Name one use of rainwater collected through rainwater harvesting. (Bathing/Washing/Watering plants)

**Teacher**: Wonderful. Let us now move on to today's lesson. (The teacher will read the third to seventh paragraph of page 70 aloud and provide explanations to ensure that the students understand the content.)

AIR

Air is present all around us. The Earth is surrounded by a blanket of air. This blanket of air around the Earth is called the atmosphere. Air is a mixture* of different gases. Air contains nitrogen, oxygen, carbon dioxide and some other gases. Air also contains water vapour, dust and smoke. Air has many uses.

70

**Teacher**: Let us begin with something all around us, something we cannot see but we feel every moment. Can you guess what it is?

MUST DO

10 MIN.

**Teacher**: Yes, it is air. What surrounds the Earth like a blanket and protects everything on it?

**Teacher**: That is absolutely right. The air around the Earth is called the atmosphere. Wonderful response.

**Teacher**: Now think carefully. What is this air made up of?

**Teacher**: Excellent. Air is a mixture of gases like nitrogen, oxygen, carbon dioxide and a few others. It also has water vapour, dust and smoke.

**Teacher**: You are doing a great work understanding what air is. Now, let us look at how this invisible blanket of air helps us in different ways.

Air is used for breathing

Air is necessary for the survival of living beings. For example, humans, animals and plants all these need air to breathe.

Air is used for generating wind power

Air in the form of wind can be used to generate electricity with wind turbines. Windmills also use air to help pump water or grind grain.

Air is used for keeping us cool

Air is used by fans and air conditioners to keep us cool on hot days. When air moves around us, it helps to evaporate sweat from our body.

Other uses of air

Air helps kites to fly high in the sky and keeps balloons filled, so they can float or rise. Air also helps the birds as air gives a push to the birds so that they can fly higher and travel longer distances with less effort.

70

**Teacher**: Let us explore how useful air really is. Why do you think air is necessary for all living beings?

MUST DO

25 MIN.

**Teacher**: Well said. Humans, animals and even plants need air to breathe and survive.

**Teacher**: That is a great connection you made. Every living thing depends on air in some way. Very thoughtful.

**Teacher**: Now tell me, how is the air used to generate electricity?

**Teacher**: Absolutely right. Wind turbines use air to produce electricity.

**Teacher**: Think deeper. What else can windmills do using the power of air?

**Teacher**: Yes, they can pump water or even grind grain. Wonderful examples. I see you are thinking clearly.

**Teacher**: Let us talk about something we experience every day. How does air help us stay cool, especially on hot days?

**Teacher**: Correct. Fans and air conditioners move air around us to cool us down. Also, moving air helps our sweat to evaporate, which cools our body. Excellent explanation.

**Teacher**: Now let us look at some more interesting uses of air. How does air help a kite to fly?

**Teacher**: That is right. It gives the kite a push and lifts it up into the sky.

**Teacher**: What do you think keeps balloons floating in the air?

**Teacher**: Yes, it is the air inside them. Air keeps balloons filled so they can float and rise.

**Teacher**: Now, think about birds. How do you think air helps them?

**Teacher**: Excellent. Birds get a push from the air, which helps them fly higher and go longer distances with less effort.

**Teacher**: That was a brilliant discussion. I love how you all connected different ideas together – from breathing to flying.

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

## Differentiated Activities

**110 km/hr**

Name one use of air in electricity generation.

**80 km/hr**

Which gas in the air do we need to breathe?

**40 km/hr**

What keeps a balloon floating?

## Home Task

Write any three uses of air. Then, draw one picture showing how air helps something move or fly.

# Period 7

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

**Teacher**: Let us begin with a quick warm-up. I will ask you five questions. Think and answer clearly.

SHOULD DO

5 MIN.

**Teacher**: What is the blanket of air around the Earth called? (Atmosphere)

**Teacher**: Which form of air helps us produce electricity? (Wind)

**Teacher**: Name one thing that uses air to keep us cool. (Fan/Air conditioner)

**Teacher**: What helps birds fly longer distances? (Air)

Teacher: Why do humans and animals need air?
(For breathing)

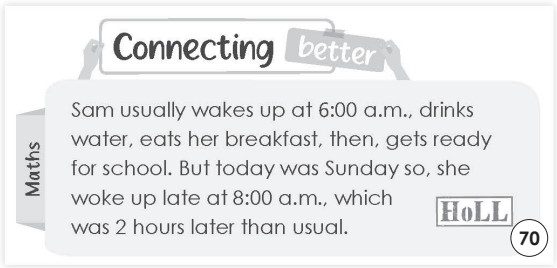
**Teacher**: Well done, everyone. Let us now move on to today's lesson.

## Connecting better

**Teacher**: Let us begin with 'Connecting better'. Sam usually wakes up at 6:00 a.m. But on Sunday, she woke up at 8:00 a.m. How many hours later did she wake up than usual?

MUST DO

5 MIN.

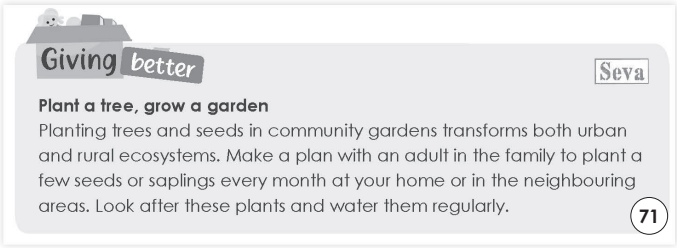



**Teacher**: Correct. Two hours later. That is a smart use of subtraction in our daily routine. You connected maths to life perfectly.

## Giving better

**Teacher**: Now let us move to 'Giving better'. What can we do to care for our environment at home or in our neighbourhood?

MUST DO
5 MIN.

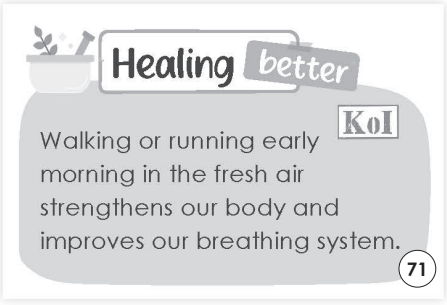



**Teacher**: That is right. We can plant seeds or saplings with our family and take care of them regularly. A small step that brings a big change. Well said.

## Healing better

**Teacher**: Let us talk about 'Healing better'. What activity can help our breathing system and keep our body strong?

MUST DO
5 MIN.




**Teacher**: Yes, walking or running early in the morning in the fresh air. A healthy habit for a healthy life. Keep it up.

## Finding better

**Teacher**: Look at 'Finding better'. Even on a still day, what is the air around us doing?

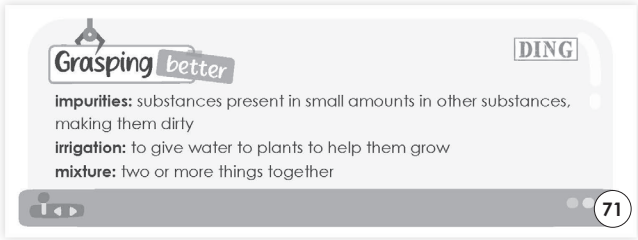
MUST DO
5 MIN.


**Teacher**: Exactly. The air is always moving. Even when we do not feel it, tiny movements of air are happening all around us. This movement may be very gentle, so we might not notice it, but it is always there. That is why we say air is never truly still. Very observant of you. Air is never truly still.

## Grasping better

**Teacher**: Let us now recall some important terms given in 'Grasping better'. What do we call unwanted particles present in water or air?

MUST DO
5 MIN.




**Teacher**: Correct. Those are impurities. These are tiny harmful or unwanted substances that make water or air dirty. For example, dust in the air or waste in the water are impurities.

**Teacher**: What does it mean when we give water to plants to help them grow?

**Teacher**: Yes, that is called irrigation. Irrigation is the process of supplying water to crops and plants in fields, especially when there is not enough rain. It helps plants grow healthy and strong.

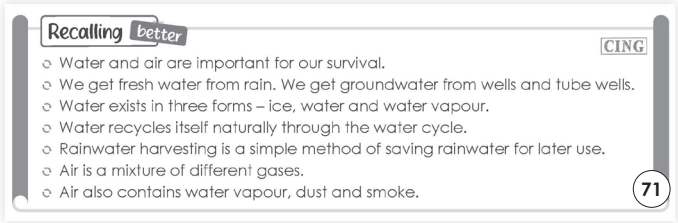
**Teacher**: What is the word for two or more things mixed together?

**Teacher**: Mixture. A mixture is formed when two or more things are combined but do not completely change into something new. For example, sand and salt mixed together form a mixture. Well done. You understood all three terms very clearly.

## Recalling better

**Teacher**: Let us now move to 'Recalling better'. I will ask you questions. Try to remember all we have learnt so far.

MUST DO
10 MIN.


Recalling better

CING

- Water and air are important for our survival.
- We get fresh water from rain. We get groundwater from wells and tube wells.
- Water exists in three forms – ice, water and water vapour.
- Water recycles itself naturally through the water cycle.
- Rainwater harvesting is a simple method of saving rainwater for later use.
- Air is a mixture of different gases.
- Air also contains water vapour, dust and smoke.

71

**Teacher**: Why are water and air important?
**Teacher**: Yes, they are important for our survival.
**Teacher**: Where do we get fresh water from?
**Teacher**: From rain and we get groundwater from wells and tube wells. Perfect recall.
**Teacher**: In how many forms does water exist?
**Teacher**: Three forms – ice, water and water vapour.
**Teacher**: What is the name of the process in which water keeps changing form naturally?
**Teacher**: The water cycle. Great.
**Teacher**: How does rainwater harvesting help?
**Teacher**: It saves water for later use. Well done.
**Teacher**: What is air made up of?
**Teacher**: It is a mixture of different gases and also has water vapour, dust and smoke. You remembered everything so well. Fantastic effort today.

You may show the **Toys from Trash** on the digital platform.

## Differentiated Activities

**110 km/hr**

What do you mean by rainwater harvesting.

**80 km/hr**

What is the meaning of the word 'impurities'?

**40 km/hr**

What is air made up of?

## Home Task

Complete the 'Trying better' activity given on page 70 of the Main Coursebook.

# Period 8

**Teacher**: Good morning, students. How are you all today?
**Teacher**: Let us begin with a quick warm-up. I will ask you five questions. Think and answer clearly.

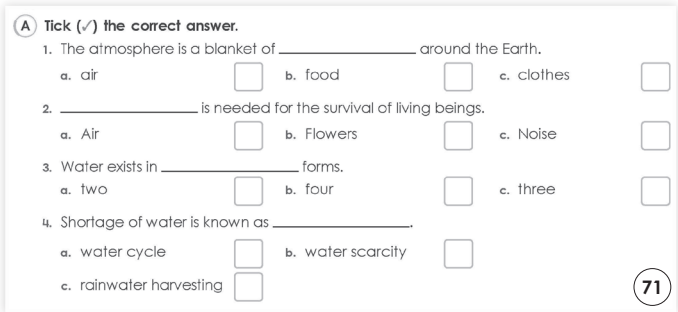
SHOULD DO
5 MIN.

**Teacher**: What is the process called when water changes into vapour? (Evaporation)
**Teacher**: Why is rainwater harvesting important? (To save water for later use)
**Teacher**: Which gas in the air is needed for breathing? (Oxygen)
**Teacher**: What is the blanket of air surrounding the Earth called? (Atmosphere)
**Teacher**: Name one way we can reuse water at home. (Watering plants with used water)
**Teacher**: Excellent answers. You have understood the chapter well so far. Let us now move on to today's lesson.

## Learning better

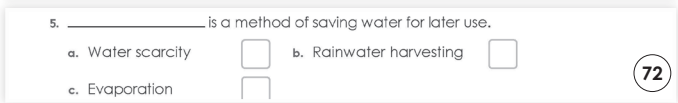
**Teacher**: Everyone, please open page 71 of your Main Coursebook. In Exercise 'A' of 'Learning better' you have to tick the correct answer. Are you ready to get started?

MUST DO
5 MIN.


A Tick (✓) the correct answer.

1. The atmosphere is a blanket of _____ around the Earth.
   a. air ☐ b. food ☐ c. clothes ☐
2. _____ is needed for the survival of living beings.
   a. Air ☐ b. Flowers ☐ c. Noise ☐
3. Water exists in _____ forms.
   a. two ☐ b. four ☐ c. three ☐
4. Shortage of water is known as _____.
   a. water cycle ☐ b. water scarcity ☐
   c. rainwater harvesting ☐

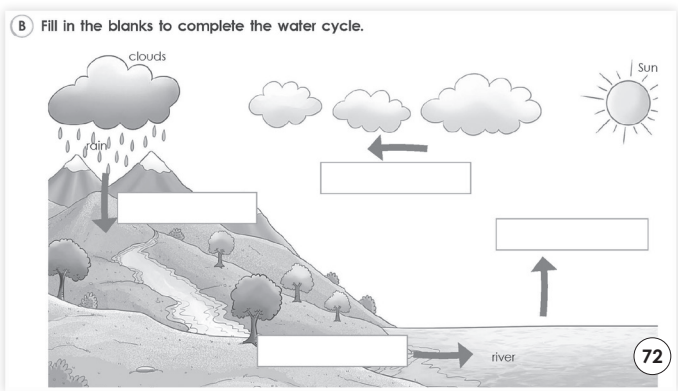
71


5. _____ is a method of saving water for later use.
   a. Water scarcity ☐ b. Rainwater harvesting ☐
   c. Evaporation ☐

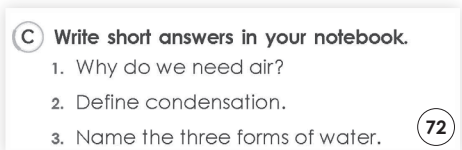
72

**Teacher**: Great. Let us begin with the first question. The atmosphere is a blanket of _____ around the Earth.
**Teacher**: The correct answer is air. Well done.
(Similarly complete all five questions. And discuss the correct answers.)
**Teacher**: Let us start Exercise 'B' of the 'Learning better' section, you have to fill in the blanks to complete the water cycle. Are you ready to get started?

MUST DO
5 MIN.




(Let the students fill in the blanks. Discuss the correct answer.)


C Write short answers in your notebook.

1. Why do we need air?
2. Define condensation.
3. Name the three forms of water.

72

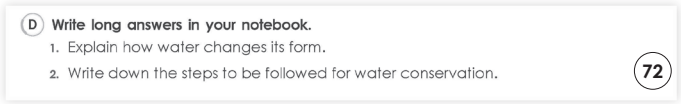
**Teacher**: Let us explore some short-answer questions. In Exercise 'C' of the 'Learning better' section, you have to write a short answer. Are you ready to get started?

MUST DO
10 MIN.

**Teacher**: Great. Let us begin with the first question. Why do we need air?

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

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


D Write long answers in your notebook.
1. Explain how water changes its form.
2. Write down the steps to be followed for water conservation.
72

**Teacher**: Let us explore some long-answer questions. In Exercise 'D' of the 'Learning better', you have to write a long answer. Let us begin with the first question. Explain how water changes its form.

MUST DO
15 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 and discuss the correct answer with the class.)

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

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

## Differentiated Activities

**110 km/hr**

What is the process by which water vapour changes into clouds and falls as rain?

**80 km/hr**

Name one gas present in the air that supports burning.

**40 km/hr**

What do we call the saving of rainwater for later use?

## Home Task

Complete the 'Creating better' activity (Making a wind catcher) given on page 72 of the Main Coursebook.

# Period 9

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

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

SHOULD DO
5 MIN.

**Teacher**: What is the process called when ice turns into water? (Melting)

**Teacher**: What is the method called that is used to store rainwater for later use? (Rainwater harvesting)

**Teacher**: Can you name two gases that makeup air? (Nitrogen, oxygen, carbon dioxide etc.)

**Teacher**: How many forms of water exist? (Three)

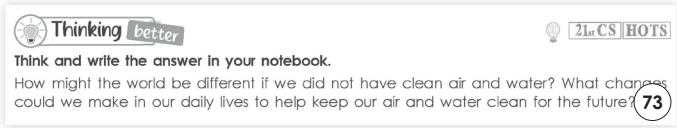
**Teacher**: What do windmills use to generate electricity? (Air/Wind)

**Teacher**: Wonderful responses. Let us now move on to today's lesson.

## Thinking better

**Teacher**: Let us begin with a question to make us think deeply. Imagine a world where we do not have clean air and clean water. How would life be different? Think and write the answer in your notebook.

MUST DO
10 MIN.


Thinking better
2LeCS HOTS
Think and write the answer in your notebook.
How might the world be different if we did not have clean air and water? What changes could we make in our daily lives to help keep our air and water clean for the future?
73

(Let the students think and write answers in their notebooks.)

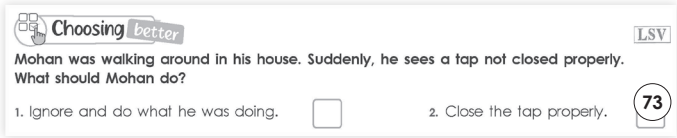
**Teacher**: Very thoughtful answers.

**Teacher**: Excellent. You are thinking deeply about how we can take responsibility for our environment. Please write your answer in your notebook.

## Choosing better

**Teacher**: Let us now look at 'Choosing better'. Mohan sees a tap not closed properly at home. What should he do?

MUST DO
5 MIN.


Choosing better
LSV
Mohan was walking around in his house. Suddenly, he sees a tap not closed properly. What should Mohan do?
1. Ignore and do what he was doing.
2. Close the tap properly.
73

1. Ignore and do what he was doing.
2. Close the tap properly.

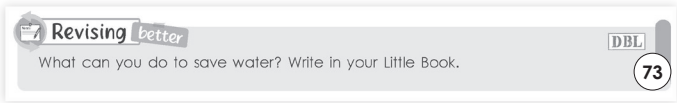
(Let the students think and choose among the options.)

**Teacher**: You are absolutely right. The correct choice is to close the tap properly. Ignoring it would waste water. Good thinking and responsible choice.

## Revising better

**Teacher**: Moving on to 'Revising better'. What can you do to save water at home? Write your answer in the Little Book.

MUST DO
5 MIN.


Revising better
DBL
What can you do to save water? Write in your Little Book.
73

(Let the students write their answer in the Little Book.)

## Pledging better

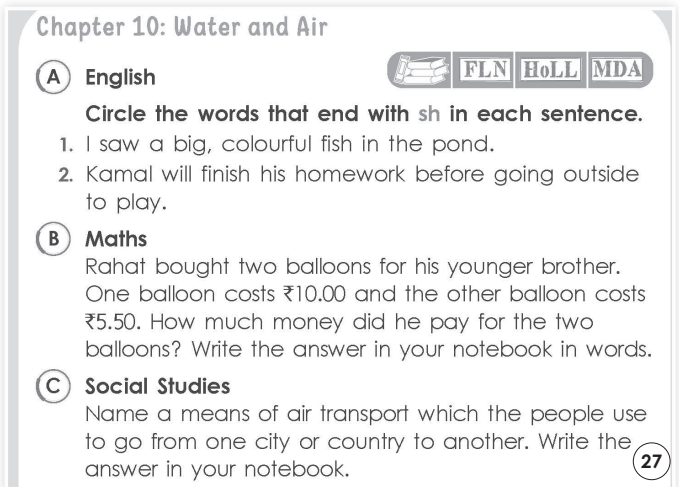
**Teacher**: Let us do the 'Pledging better'. What is one small action you can take to save water?

MUST DO
5 MIN.


**Teacher**: Wonderful. Taking short showers or baths is a simple but powerful way to save water. Let us all say it together: In my own little way, I pledge to take short showers or baths.

**Teacher**: Great. Small actions like this can help in achieving SDG 6: Clean Water and Sanitation.

## Book of Holistic Teaching


Chapter 10: Water and Air

FLN HoLL MDA

(A) **English**

**Circle the words that end with sh in each sentence.**

1. I saw a big, colourful fish in the pond.
2. Kamal will finish his homework before going outside to play.

(B) **Maths**

Rahat bought two balloons for his younger brother. One balloon costs ₹10.00 and the other balloon costs ₹5.50. How much money did he pay for the two balloons? Write the answer in your notebook in words.

(C) **Social Studies**

Name a means of air transport which the people use to go from one city or country to another. Write the answer in your notebook.

27

Refer to the Book of Holistic Teaching, page number 27 under the title 'Water and Air.' 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.

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

MUST DO
10 MIN.

## Differentiated Activities

**110 km/hr**

What change can you make in your lifestyle to save both air and water?

**80 km/hr**

Why should we turn off taps after use?

**40 km/hr**

What should Mohan do when he sees a tap open?

## Home Task

The Project Idea, given in the book of Project Ideas, page 15 under the title 'Water and Air.' This project should be assigned to the students as a home task to work on. Ensure that the students understand the project requirements and provide any necessary guidance or materials they might need.

# Period 10

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

SHOULD DO
5 MIN.

**Teacher**: How does the quality of water affect our health and daily life? (People may fall sick if the water is not clean)

**Teacher**: Why is it important to manage waste properly instead of throwing it anywhere? (It prevents pollution and keeps the environment clean)

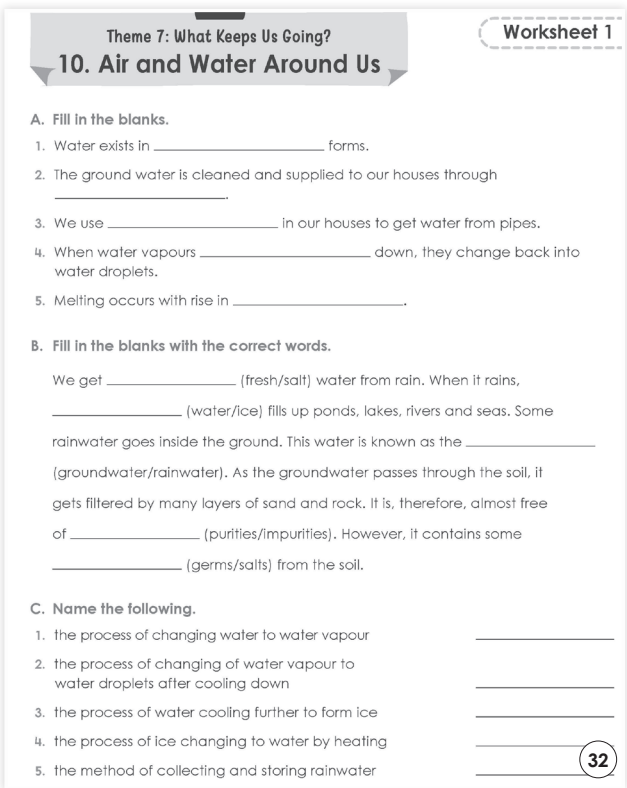
**Teacher**: How does recycling help the environment? (It reduces pollution and saves resources)

**Teacher**: What could happen if we leave litter lying around in public places? (It pollutes the surroundings and affects animals and people)

**Teacher**: In what way does the Tulsi tree contribute to cleaner air? (It helps reduce air pollution by releasing oxygen and absorbing harmful gases)

**Teacher**: Well done, everyone. Let us now move on to today's lesson.

**Worksheet 1**


Theme 7: What Keeps Us Going?

Worksheet 1

10. Air and Water Around Us

A. **Fill in the blanks.**

1. Water exists in _____ forms.
2. The ground water is cleaned and supplied to our houses through _____.
3. We use _____ in our houses to get water from pipes.
4. When water vapours _____ down, they change back into water droplets.
5. Melting occurs with rise in _____.

B. **Fill in the blanks with the correct words.**

We get _____ (fresh/salt) water from rain. When it rains, _____ (water/ice) fills up ponds, lakes, rivers and seas. Some rainwater goes inside the ground. This water is known as the _____ (groundwater/rainwater). As the groundwater passes through the soil, it gets filtered by many layers of sand and rock. It is, therefore, almost free of _____ (purities/impurities). However, it contains some _____ (germs/salts) from the soil.

C. **Name the following.**

1. the process of changing water to water vapour _____
2. the process of changing of water vapour to water droplets after cooling down _____
3. the process of water cooling further to form ice _____
4. the process of ice changing to water by heating _____
5. the method of collecting and storing rainwater _____

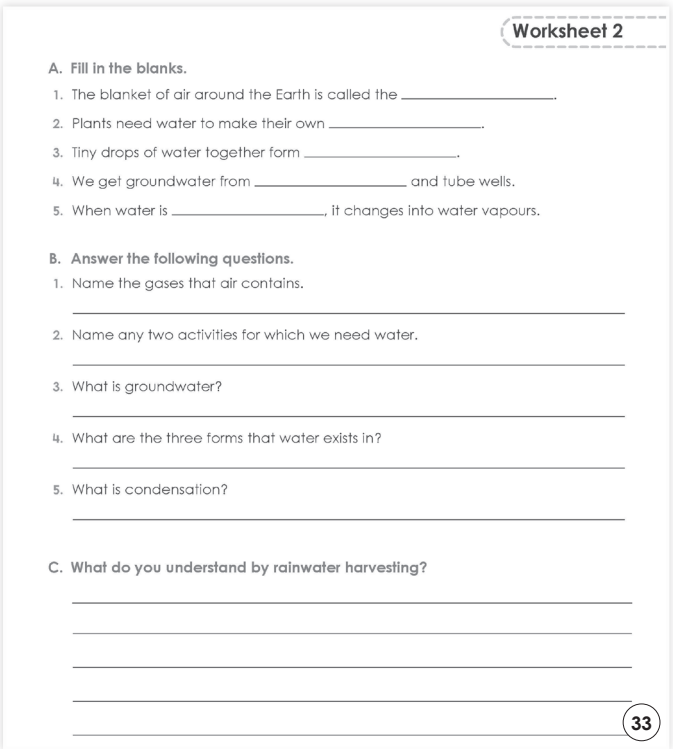
32

**Teacher**: Let us do some activities from the workbook. Everybody, please open page 32 of your workbook and answer the questions given in worksheet - 1.

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.)

**Worksheet 2**



Worksheet 2

A. **Fill in the blanks.**

1. The blanket of air around the Earth is called the _____.
2. Plants need water to make their own _____.
3. Tiny drops of water together form _____.
4. We get groundwater from _____ and tube wells.
5. When water is _____, it changes into water vapours.

B. **Answer the following questions.**

1. Name the gases that air contains.
2. Name any two activities for which we need water.
3. What is groundwater?
4. What are the three forms that water exists in?
5. What is condensation?

C. **What do you understand by rainwater harvesting?**

33

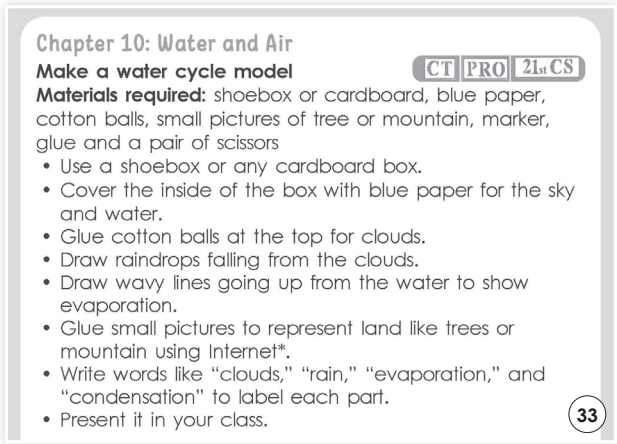
**Teacher**: Let us do some activities from the worksheet - 2. Everybody, please open page 30 of your workbook and answer the questions given in worksheet – 2.

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.)

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

## Book of Project Ideas



Chapter 10: Water and Air

**Make a water cycle model** CT PRO 21st CS

**Materials required:** shoebox or cardboard, blue paper, cotton balls, small pictures of tree or mountain, marker, glue and a pair of scissors

- Use a shoebox or any cardboard box.
- Cover the inside of the box with blue paper for the sky and water.
- Glue cotton balls at the top for clouds.
- Draw raindrops falling from the clouds.
- Draw wavy lines going up from the water to show evaporation.
- Glue small pictures to represent land like trees or mountain using Internet*.
- Write words like "clouds," "rain," "evaporation," and "condensation" to label each part.
- Present it in your class.

33

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

COULD DO
10 MIN.

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

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

SHOULD DO
5 MIN.

(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 Activities

**110 km/hr**

Which form of water in the cycle cannot be seen but is present in the air?

**80 km/hr**

Which two changes in the state of water are caused directly by temperature?

**40 km/hr**

What do we call the change of water into ice?

## Home Task

Complete worksheet – 3 given on page 34 of the workbook.

## Learning Outcomes

**The students will:**

| Domain | Learning Outcome |
|---|---|
| **Physical Development** | • demonstrate control and coordination by performing simple tasks such as folding paper, pasting and colouring during a hands-on activity on air movement and water cycle. |
| **Socio-Emotional and Ethical Development** | • show awareness and responsibility by selecting daily actions such as turning off taps and planting trees to conserve water and reduce pollution. |
| **Cognitive Development** | • identify the sources and forms of water and air, explain processes such as evaporation and condensation and apply the idea of conservation in real contexts. |
| **Language and Literacy Development** | • read informational text on Water and Air, comprehend key ideas and express understanding through true or false, short answers and multiple-choice questions. |
| **Aesthetic and Cultural Development** | • appreciate traditional practices like rainwater harvesting and the cultural value of plants such as Tulsi in maintaining clean air and water. |
| **Positive Learning Habits** | • develop daily habits like reusing water, taking short showers and closing taps to support environmental care and sustainable living. |

**Starry Knights**

How do you feel after teaching this unit? Will it be effective in the conservation of water?

Award a STAR to yourself for being such a fantastic teacher.