Lesson-8: Earth and Its Neighbours

10 Periods (40 minutes each)

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

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

Affirming better: I love sharing what I learn with others.

Curricular Goals and Objectives (NCF)

To enable the students:

- to understand the Solar System, including the Sun, Moon and stars and recognise the contributions of Indian astronomers.
- to explore the impact of celestial bodies on human life through traditional knowledge systems like Ayurveda.
- to express learning through creative writing, observation and reflective journaling.
- to develop analytical thinking and values like honesty and diligence through discussions.

Methodology

Period 1

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

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

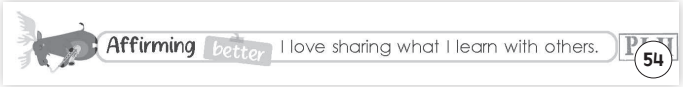
SHOULD DO — 5 MIN.

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

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

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

Affirming better



Teacher: Before we start the class, let us all affirm together, 'I love sharing what I learn with others.' Repeat after me: 'I love sharing what I learn with others.'

Teacher: Alright. Today, we are going to begin a new chapter 'Earth and Its Neighbours.' 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 start the Kinaesthetic activity.

Teacher: Take a sheet of paper and draw a globe. Now, use blue-coloured paper to represent water and green-coloured paper for land. Work with your partner—one of you will paste blue for water and the other will paste green for land.

MUST DO — 10 MIN.

Teacher: Once you have finished, observe your globe. Does it look like the Earth?

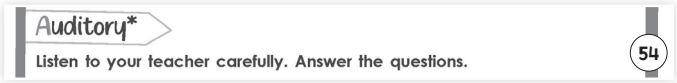
(Give the students time to complete the activity.)

Teacher: Well done everybody. Let us move to the next part.

Auditory

Teacher: Let us move to 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: Earth is our home planet and it is the third planet from the Sun. It is just the right distance from the Sun, making it warm enough for water to stay liquid and for life to thrive. Earth has one moon that orbits around it. Our closest neighbours in space are Venus, which is hotter than Earth and Mars, which is colder and known as the Red Planet.

1. What makes Mars different from Earth?
2. How many moons does Earth have?

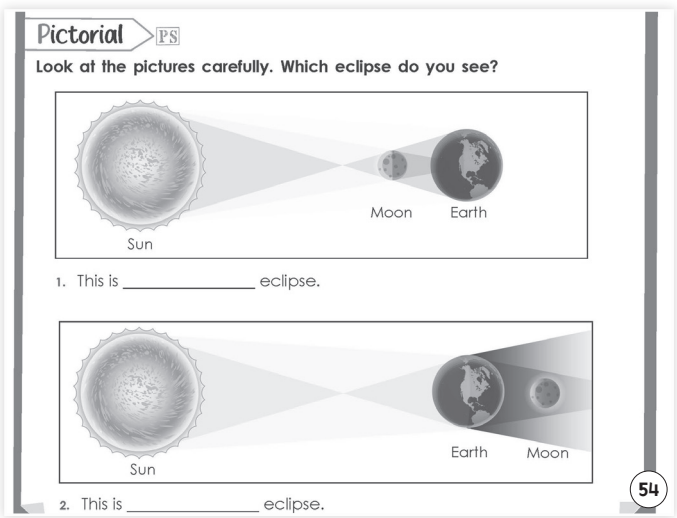
(Waits for student responses.)

Teacher: Great listening. Now, let us do our next activity.

Pictorial

Teacher: Let us now observe some pictures given on page 54 of the Main Coursebook. Look at these two pictures carefully. Each one shows an eclipse. Can you observe where the Sun, Moon and Earth are positioned?

MUST DO
10 MIN.



Teacher: In the first picture, the Moon is between the Sun and the Earth. What do you think this eclipse is called?

Teacher: In the second picture, the Earth is between the Sun and the Moon. What do we call this type of eclipse?

Teacher: Write your answers in the blanks given in your book.

Differentiated Activities

110 km/hr

What is the position of the Moon during a solar eclipse?

80 km/hr

What is the position of the Earth during a lunar eclipse?

40 km/hr

Name any one type of eclipse.

Home Task

Observe the night sky and draw what you see in your notebook. Write five sentences about it.

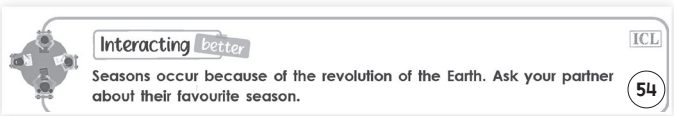
Period 2

Interacting better

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

Teacher: Great. Today, we will start with an interesting discussion about the seasons. Have you ever wondered why we have different seasons?

MUST DO
10 MIN.



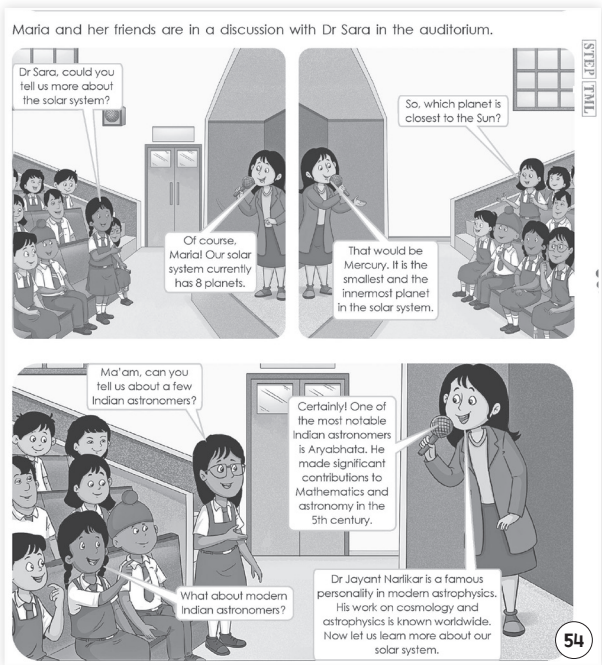
Teacher: Yes. Seasons change because of the revolution of the Earth around the Sun. Now, let us do a quick activity. Turn to your partner and ask them about their favourite season. What do they like about it? Is it summer, winter, monsoon or spring?

Teacher: Listen carefully to their answer and then share what your favourite season is with them. Take turns and enjoy the discussion.

(Encourage students to discuss and guide the discussion accordingly.)

(Use **CRM signs** to settle the class.)

Teacher: Great discussion everybody.



Teacher: Today, we are going to explore an interesting discussion between Maria, her friends and Dr Sara. Open your books and carefully read the picture story given on page 55 of the Main Coursebook. Observe the expressions, read the dialogues and understand what they are talking about. Take your time and once you are done, I will ask you some questions.

MUST DO
30 MIN.

(Wait for students to read.)

Teacher: Now that you have read the story, let us discuss what you have learned. Who was Maria and her friends speaking to in the auditorium?

Teacher: That is correct. They were speaking to Dr Sara. She was explaining important facts about the solar system. How many planets are there in our solar system?

Teacher: Well done. Yes, our solar system has eight planets. Each planet has unique features that make it special. Dr Sara mentioned the smallest and innermost planet. What is its name?

Teacher: Absolutely right. Mercury is the smallest planet and the one closest to the Sun. Imagine how hot it must be.

Teacher: Aryabhata made great contributions to which subjects?

Teacher: Excellent. Aryabhata contributed to both Mathematics and Astronomy. His work helped people understand the movement of celestial bodies.

Teacher: Who is Dr Jayant Narlikar and what is his field of expertise?

Teacher: That is a brilliant answer. Dr Jayant Narlikar is a modern astrophysicist. His work in cosmology has helped us learn more about the universe.

Teacher: Why do you think astronomers are important for our understanding of space?

Teacher: Great thinking. Astronomers help us understand space, planets and stars. Without them, we would not know much about the solar system or the universe.

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

Teacher: What did you learn from the story?

Teacher: That is a wonderful observation. The discussion helped us learn about planets and famous astronomers.

Teacher: Which part of the discussion did you find most interesting?

Teacher: That is an interesting choice. Learning about astronomers and their discoveries is truly inspiring.

Teacher: Why is it important to learn about astronomers and space?

Teacher: Excellent insights. Understanding space helps us learn about Earth, technology and even space travel. You are all thinking critically about the topic.

Teacher: Well done, everyone. Let us keep exploring and learning more in our next lesson.

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

Differentiated Activities

110 km/hr

Who contributed to both Mathematics and Astronomy in the 5th century?

80 km/hr

Name the planet closest to the Sun.

40 km/hr

How many planets are in the solar system?

Home Task

Write five sentences about any one Indian astronomer. Include their name, their contribution and why they are important.

Period 3

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

Teacher: Great. Let us start with a quick game before we begin today's lesson. I will describe something and you have to guess what I am talking about.

SHOULD DO
5 MIN.

Teacher: Here is your first clue – Our solar system has these many planets. What is the number? (Eight planets)

Teacher: Well done. Now, try this – It is the smallest planet in our solar system and the closest to the Sun. What is its name? (Mercury)

Teacher: Very good. Let us try one more – This subject involves the study of stars, planets and space. What is it called? (Astronomy)

Teacher: Excellent. Let us try one more – This Indian astronomer made important contributions to Mathematics and Astronomy in the 5th century. Who is he? (Aryabhata)

Teacher: Brilliant answers, everyone. Now, let us begin today's lesson.

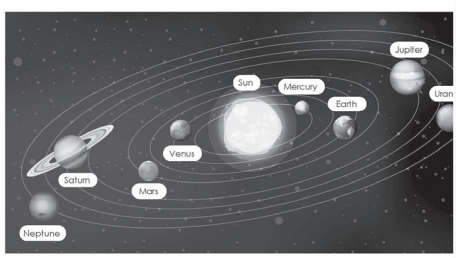
MUST DO
15 MIN.

Teacher: Today, we are going to learn about our solar system.

(The teacher will read the first 6 paragraphs of page 56 aloud and provide explanations to ensure that the students understand the content.)

SOLAR SYSTEM

The Sun and the planets that move around it form the solar system. A planet is a large body that moves around a star. The Sun is a star in the solar system, eight planets move around it. These planets move around the Sun in a fixed path. This path is called an orbit. The planets do not have light of their own. They get light and heat from the Sun.



our solar system

Teacher: Look at the image of our solar system in your Main Coursebook. What do you see?

Teacher: Yes, the Sun is at the centre and there are eight planets moving around it.

Teacher: The Sun and these planets together form the solar system. What do we call the path in which planets move around the Sun?

Teacher: That is right. It is called an orbit.

Teacher: Do planets have their own light?

Teacher: No, they do not. They get light and heat from the Sun. That is why we see them shining at night.

Teacher: Excellent answers. Now, let us learn more about the planets.

PLANETS

The eight planets in the solar system are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

Mercury: Mercury is the smallest planet in our solar system. It is the closest planet to the Sun. Mercury has no Moons.

Venus: Venus is the second planet from the Sun. It is almost as big as the Earth. Venus is the hottest planet in our solar system. Venus has no Moons. The average surface temperature of Venus is 464 degree celsius.

Earth: The Earth is the third planet from the Sun. It is the only planet where life exists. The Earth has one Moon.

Mars: Mars is the fourth planet from the Sun. It has two Moons. It is called the red planet because its surface is covered with red dust.

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Teacher: Mercury is the smallest planet in our solar system. Look at its position in the picture. What is special about Mercury?

MUST DO
20 MIN.

Teacher: Yes, it is the closest planet to the Sun.

Teacher: Now, does Mercury have any moons?

Teacher: That is right. Mercury has no moons.

Teacher: Let us talk about Venus. Venus is the second planet from the Sun. Can anyone describe its size compared to Earth?

Teacher: Correct. Venus is almost as big as the Earth.

Teacher: Venus is also the hottest planet. Do you know its surface temperature?

Teacher: Yes, it is 464 degrees Celsius.

Teacher: Great observations. Now, let us talk about Earth and Mars.

Teacher: Earth is the third planet from the Sun. What makes Earth special?

Teacher: Yes. It is the only planet where life exists.

Teacher: How many moons does Earth have?

Teacher: Yes, Earth has one Moon.

Teacher: Now, let us talk about Mars. It is the fourth planet from the Sun. What is it often called?

Teacher: That is correct. It is called the red planet because its surface is covered with red dust.

Teacher: How many moons does Mars have?

Teacher: Yes, Mars has two moons.

Teacher: Fantastic responses.

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

Differentiated Activities

110 km/hr

What is the hottest planet in the solar system?

80 km/hr

What is the smallest planet in the solar system?

40 km/hr

Which planet is known as the red planet?

Home Task

Draw and label the four planets we discussed today—Mercury, Venus, Earth and Mars. Write one fact about each of them.

Period 4

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

Teacher: Great. Let us begin with a quick guessing game before we start our lesson. I will give you some clues and you have to guess the correct answer.

SHOULD DO
5 MIN.

Teacher: Here is your first clue – I am the centre of the solar system and all planets revolve around me. What am I? (The Sun)

Teacher: Well done. Let us try another one – I am the smallest planet and the closest to the Sun. Can you guess my name? (Mercury)

Teacher: Very good. Now, here is a tricky one – I am the hottest planet and my temperature is 464 degrees Celsius. Who am I? (Venus)

Teacher: Excellent. Let us try one more – I am the only planet where life exists. What am I? (Earth)

Teacher: Fantastic answers. Now, let us begin today's lesson.

Teacher: Today, we will continue our learning about our solar system.

(The teacher will read the last three paragraphs of page 56 and the first two paragraphs of page 57 aloud and provide explanations to ensure that the students understand the content.)

Jupiter: Jupiter is the fifth planet from the Sun. It is the largest planet in the solar system. It has 95 Moons moving around it.

Saturn: Saturn is the sixth planet from the Sun. It is the second largest planet in the solar system. It is surrounded by beautiful rings. It has 146 Moons.

Uranus: Uranus is the seventh planet from the Sun. It is the third largest planet in our solar system. It is a very cold planet and has 28 Moons. Uranus has faint rings.

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Neptune: Neptune is the farthest planet from the Sun. It is also a cold planet and is blue in colour. It has 16 Moons.

THE SUN

The Sun is the largest heavenly body in the solar system. It contains hot gases. It gives out heat and light.

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Teacher: Let us begin with Jupiter. Look at the image in your book. Can you describe its position in the solar system?

MUST DO 20 MIN.

Teacher: Yes. Jupiter is the fifth planet from the Sun.

Teacher: What makes Jupiter special?

Teacher: That is right. It is the largest planet in the solar system. It is so big that many Moons move around it. Can you guess how many?

Teacher: Yes, 95 Moons. Now, let us learn about Saturn. What is its position in the solar system?

Teacher: Correct. It is the sixth planet from the Sun.

Teacher: Saturn is also unique because of something beautiful around it. What is it?

Teacher: Absolutely. It has rings around it.

Teacher: Now, tell me, how many Moons does Saturn have?

Teacher: Yes. It has 146 Moons, the highest among all planets.

Teacher: Wonderful. Now, let us explore Uranus and Neptune. Where is it in the solar system?

Teacher: Yes, it is the seventh planet from the Sun. What about Neptune? Where is it located?

Teacher: That is correct. Neptune is the farthest planet from the Sun.

Teacher: Neptune is different from other planets in two ways. Can you think of them?

Teacher: Yes. It is a cold planet and it is blue in colour.

Teacher: And how many Moons does Neptune have?

Teacher: Right. It has 16 Moons. Great. Now, let us talk about the Sun.

Teacher: What is at the centre of the solar system? Yes. The Sun.

Teacher: The Sun is the largest heavenly body in our solar system. But what is it made of?

Teacher: That is right. It is made of hot gases.

Teacher: The Sun gives us two important things. Can you name them?

Teacher: Yes. It gives us heat and light. Without the Sun, life on Earth would not be possible.

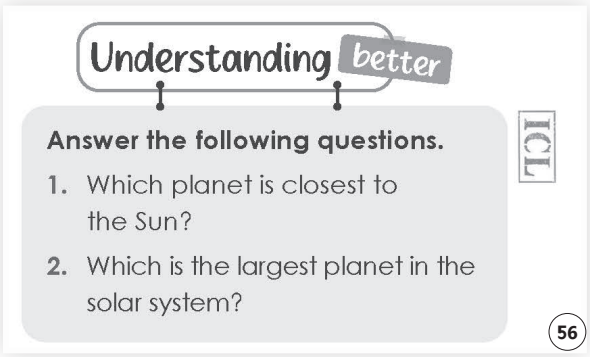
Teacher: Excellent responses. Now, let us do some activities to check our understanding.

Discovering better

(Explain the term given in the 'Discovering better' activity and discuss it with the class.)

MUST DO 5 MIN.

Understanding better



Teacher: I will ask you two questions and you will answer them based on what we have learned.

MUST DO 10 MIN.

Teacher: The first question is: Which planet is closest to the Sun?

Teacher: And the second question is: Which is the largest planet in the solar system?

Teacher: Write down your answers in your notebook.

(Discuss the correct answer with the class.)

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

Differentiated Activities

110 km/hr

Which planet has the highest number of Moons?

80 km/hr

Which planet is the farthest from the Sun?

40 km/hr

What is the colour of Neptune?

Home Task

Draw and label Jupiter, Saturn, Uranus and Neptune. Write one fact about each planet.

Period 5

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

Teacher: Great. Let us start with a quick guessing game. I will give you some clues and you have to guess the correct answer.

SHOULD DO
5 MIN.

Teacher: Here is your first clue – I am the largest planet in the solar system. What am I? (Jupiter)

Teacher: Well done. Let us try another one – I have beautiful rings around me. Can you guess my name? (Saturn)

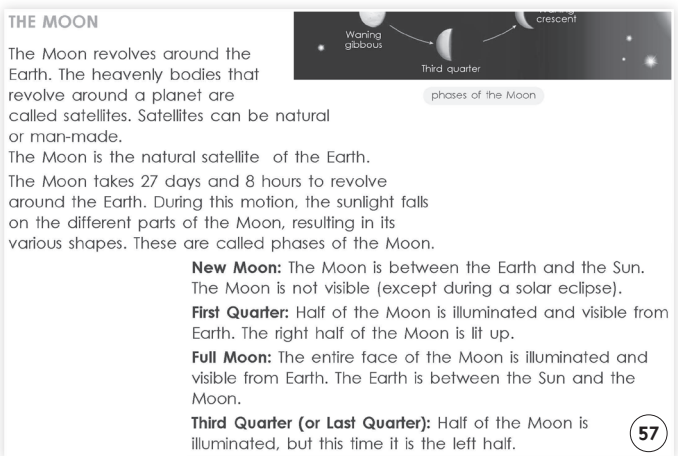
Teacher: Very good. Now, here is a tricky one – I am the seventh planet from the Sun. Who am I? (Uranus)

Teacher: Excellent. Let us try one more – I am blue in colour and very cold. What am I? (Neptune)

Teacher: Fantastic answers. Now, let us begin today's lesson.

Teacher: Today, we are going to learn about the Moon and its phases.

(The teacher will read the third to eighth paragraph of page 57 aloud and provide explanations to ensure that the students understand the content.)



THE MOON

The Moon revolves around the Earth. The heavenly bodies that revolve around a planet are called satellites. Satellites can be natural or man-made.

The Moon is the natural satellite of the Earth.

The Moon takes 27 days and 8 hours to revolve around the Earth. During this motion, the sunlight falls on the different parts of the Moon, resulting in its various shapes. These are called phases of the Moon.

phases of the Moon

New Moon: The Moon is between the Earth and the Sun. The Moon is not visible (except during a solar eclipse).

First Quarter: Half of the Moon is illuminated and visible from Earth. The right half of the Moon is lit up.

Full Moon: The entire face of the Moon is illuminated and visible from Earth. The Earth is between the Sun and the Moon.

Third Quarter (or Last Quarter): Half of the Moon is illuminated, but this time it is the left half.

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Teacher: Today, we are going to learn about a very special object in the night sky. Can anyone guess what it is?

MUST DO
15 MIN.

Teacher: That is right, the Moon. The Moon revolves around the Earth. What do we call heavenly bodies that move around a planet?

Teacher: That is correct, we call them satellites. Satellites can be natural or man-made. Now, is the Moon a natural satellite or a man-made one?

Teacher: Excellent. The Moon is the natural satellite of the Earth. Do you think the Moon stays in the same place all the time?

Teacher: Yes, it moves. How long do you think the Moon takes to complete one full revolution around the Earth?

Teacher: That is correct. The Moon takes about 27 days and 8 hours to complete one full orbit around the Earth. This is called the sidereal month. It is the time the Moon takes to move around the Earth relative to the distant stars.

Teacher: But, the Moon's motion is not the only thing that affects this. Can anyone guess what else might affect the Moon's movement?

Teacher: Yes, exactly. While the Moon is orbiting the Earth, the Earth is also moving around the Sun. So, after the Moon completes one orbit relative to the stars, it needs to travel a little further to catch up with the Earth's new position.

Teacher: How many more days do you think it takes for the Moon to do this?

Teacher: Very close. It actually takes an extra 2.2 days. So, the Moon takes about 29.5 days to return to the same phase, like from one full moon to the next. This is called the synodic month. The Moon needs this extra time to align with the Earth and the Sun again.

Teacher: So, the sidereal month is about 27.3 days and the synodic month is about 29.5 days. Does everyone understand the difference now?

Teacher: Great. When the Moon moves, sunlight falls on different parts of it. What do you think happens because of this?

Teacher: Yes. We see different shapes of the Moon on different nights. These are called the phases of the Moon.

Teacher: Well done. Now, let us learn about the different phases of the Moon.

Teacher: The first phase is the New Moon. This happens when the Moon is between the Earth and the Sun. Can we see the Moon during this phase?

MUST DO
10 MIN.

Teacher: No. The Moon is not visible except during a solar eclipse.

Teacher: The next phase is the First Quarter. In this phase, half of the Moon is visible from Earth. Can anyone tell me which side of the Moon is lit up?

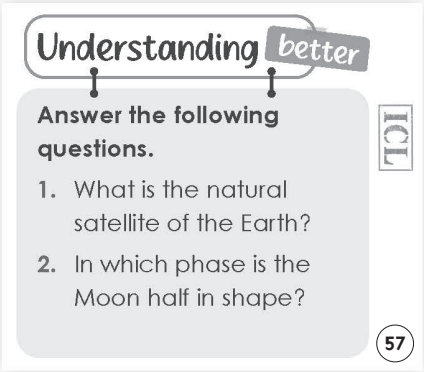
Teacher: That is correct, the right half of the Moon is lit up. Now, let us move to the Full Moon. What do you think happens in this phase?

Teacher: Yes. The entire face of the Moon is illuminated and we can see it completely. In this phase, the Earth is between the Sun and the Moon. The last phase we will learn today is the Third Quarter, also called the Last Quarter. How much of the Moon do you think is visible?

Teacher: That is right, half of the Moon is visible, but this time it is the left half.

Teacher: Fantastic answers. You have all understood the phases of the Moon well. Let us finish the 'Understanding better' activity.

Understanding better


Understanding better

Answer the following questions.

1. What is the natural satellite of the Earth?
2. In which phase is the Moon half in shape?

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Teacher: I will ask you two questions and you will answer them based on what we have learned.

MUST DO
10 MIN.

Teacher: The first question is: What is the natural satellite of the Earth?

Teacher: And the second question is: In which phase is the Moon half in shape?

Teacher: Write down your answers in your notebook.

(Discuss the correct answer with the class.)

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

Differentiated Activities

110 km/hr

What is the phase called when the Moon is not visible in the sky?

80 km/hr

How much of the Moon is visible during the Full Moon phase?

40 km/hr

What is the natural satellite of the Earth?

Home Task

Draw and label the four phases of the Moon: New Moon, First Quarter, Full Moon and Third Quarter. Write one fact about each phase.

Period 6

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

Teacher: Great. Let us begin with a quick guessing game. I will give you some clues and you have to guess the correct answer.

SHOULD DO
5 MIN.

Teacher: Here is your first clue – I move around the Earth and change my shape every night. What am I? (The Moon)

Teacher: Well done. Let us try another one – I am the phase when the Moon is fully visible in the sky. Can you guess my name? (Full Moon)

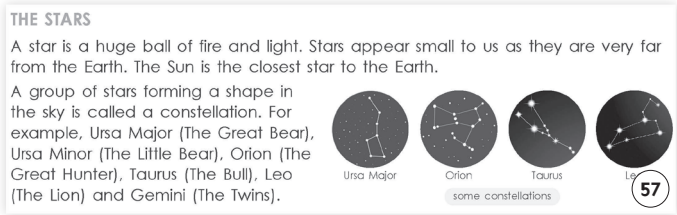
Teacher: Very good. Now, here is a tricky one – I am in the phase when the Moon is between the Earth and the Sun. Who am I? (New Moon)

Teacher: Excellent. Let us try one more – I am in the phase where only the right half of the Moon is visible. What am I? (First Quarter)

Teacher: Fantastic answers. Now, let us begin today's lesson.

Teacher: Today, we are going to talk about the stars and the Astronomers.

(The teacher will read the last paragraph of page 57 and the first three paragraphs of page 58 aloud and provide explanations to ensure that the students understand the content.)


THE STARS

A star is a huge ball of fire and light. Stars appear small to us as they are very far from the Earth. The Sun is the closest star to the Earth.

A group of stars forming a shape in the sky is called a constellation. For example, Ursa Major (The Great Bear), Ursa Minor (The Little Bear), Orion (The Great Hunter), Taurus (The Bull), Leo (The Lion) and Gemini (The Twins).

Ursa Major Orion Taurus Le

some constellations

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Teacher: Can anyone tell me what shines in the sky at night? That is right, stars.

MUST DO
10 MIN.

Teacher: A star is a huge ball of fire and light. Why do you think stars appear so small to us? Teacher: Yes, it is because they are very far from the Earth. Now, what is the closest star to Earth?

Teacher: Excellent. The Sun is the closest star to Earth. Stars do not always appear alone. Sometimes, they form patterns in the sky. Do you know what we call a group of stars forming a shape?

Teacher: That is correct. It is called a constellation. Let us look at some examples. Can anyone name a constellation?

Teacher: Well done. Ursa Major, also called The Great Bear, is one of them. There are many other constellations. Look at the image in your book. Can you spot Orion, Taurus, Leo and Gemini?

Teacher: Great work. These constellations have been observed for centuries.

Teacher: Fantastic. Now, let us move on to learning about Indian astronomers.

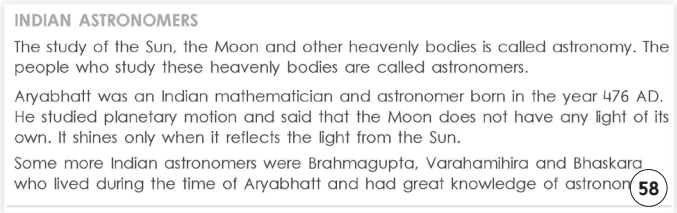
Poster

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 animal reproduction. Encourage students to observe the posters and discuss the different types of animal reproduction.)

Teacher: Great observation everyone.



INDIAN ASTRONOMERS

The study of the Sun, the Moon and other heavenly bodies is called astronomy. The people who study these heavenly bodies are called astronomers.

Aryabhatt was an Indian mathematician and astronomer born in the year 476 AD. He studied planetary motion and said that the Moon does not have any light of its own. It shines only when it reflects the light from the Sun.

Some more Indian astronomers were Brahmagupta, Varahamihira and Bhaskara who lived during the time of Aryabhatt and had great knowledge of astronom

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Teacher: The study of the Sun, the Moon and other heavenly bodies is called astronomy. Can anyone guess what we call the people who study them?

MUST DO

10 MIN.

Teacher: Who studies the Sun, the Moon and other heavenly bodies?

Teacher: That is right. They are called astronomers. Can you name one of the most famous Indian astronomers?

Teacher: Well done. Aryabhata was a great astronomer and mathematician. Do you know when he was born?

Teacher: Correct. He was born in 476 AD. What did he study?

Teacher: Yes. He studied planetary motion. Now, let me ask you a tricky one. Does the Moon have its own light?

Teacher: That is right. The Moon does not have its own light. Then, how do we see it shining?

Teacher: Excellent. The Moon shines because it reflects light from the Sun.

Teacher: Aryabhata was not the only great Indian astronomer. Can you find and read out some other names from your book?

Teacher: Well done. Brahmagupta, Varahamihira and Bhaskara were also great astronomers. Why do you think their work was important?

Teacher: Yes. Their discoveries helped us understand space, planets and stars. Thanks to them, we know so much about astronomy today.

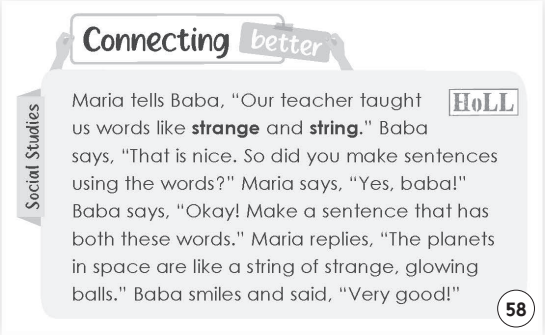
Teacher: Fantastic answers. Now, let us test our knowledge with some activities.

Connecting better

Teacher: Today, we will learn how to connect words and form meaningful sentences. Maria and Baba had a conversation using two words. Can you find those words in your book?

MUST DO

10 MIN.



Connecting better

Social Studies

HoLL

Maria tells Baba, "Our teacher taught us words like **strange** and **string**." Baba says, "That is nice. So did you make sentences using the words?" Maria says, "Yes, baba!" Baba says, "Okay! Make a sentence that has both these words." Maria replies, "The planets in space are like a string of strange, glowing balls." Baba smiles and said, "Very good!"

58

Teacher: Well done. The words are strange and string. Now, what do you think Baba asked Maria to do with these words?

Teacher: Yes. He asked Maria to make a sentence using both words. And what sentence did Maria come up with?

Teacher: Excellent. She said, "The planets in space are like a string of strange, glowing balls." What a wonderful sentence. Now, let us think of our own sentences using these words.

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

Differentiated Activities

110 km/hr

Name any two constellations.

80 km/hr

Who was Aryabhata?

40 km/hr

What is the closest star to the Earth?

Home Task

Draw a constellation of your choice and label it. Write two sentences about it.

Period 7

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

Teacher: Great. Let us begin with a quick guessing game. I will give you clues and you have to guess the answer.

SHOULD DO

5 MIN.

Teacher: Here is your first clue – I am a huge ball of fire and light and I shine in the sky. What am I? (A star)

Teacher: Well done. Here is the next one – I am the closest star to the Earth. Who am I? (The Sun)

Teacher: Very good. Now, think about this – A group of stars forming a shape in the night sky is called what? (A constellation)

Teacher: Excellent. Here is another one – I was a famous Indian astronomer who studied planetary motion. Who am I? (Aryabhata)

Teacher: Fantastic answers. Now, let us begin today's lesson.

Healing better

Teacher: Now, let us learn about something that helps our body. Look at your book. What is mentioned as helpful for digestion?

Teacher: That is right. Triphala powder is considered good for digestion. When should we take it?

Teacher: Correct. One teaspoon of Triphala powder on an empty stomach in the morning helps detoxify the liver and improves digestion. Why do you think detoxifying the liver is important?

MUST DO
5 MIN.

Teacher: Fantastic answers.

Finding better

Teacher: Now, let us find out something interesting about space. Look at the facts in your book. What colour does the sunset appear on Mars?

MUST DO
5 MIN.

Teacher: That is correct. The sunset on Mars appears blue. Why do you think it is different from Earth?

Teacher: Great thinking. The atmosphere on Mars is different, which changes the way light scatters. Science is amazing, is it not?

Laughing better

Teacher: Let us end the lesson with a fun question. Hopper asked Diley a question. Can you read it?

MUST DO
5 MIN.

Teacher: Yes. Hopper asked, "Did you know that the Sun is a star?" And what did Diley reply?

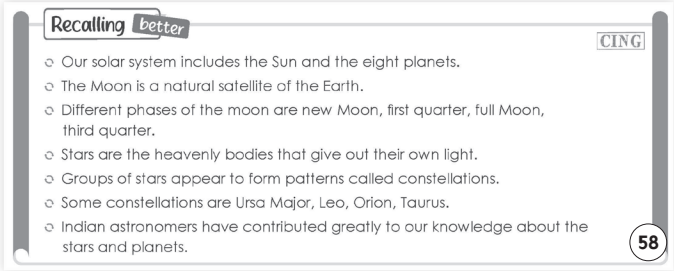
Teacher: Excellent. Diley said, "Yes. It is so bright, hot and far." Why do you think the Sun looks bigger than other stars?

Teacher: Well done. It is because the Sun is the closest star to Earth. You all did a great work today.

Recalling better

Teacher: Let us begin today's lesson by recalling what we have learnt about space. Our solar system has a very important star at its centre. Can anyone tell me its name?

MUST DO
10 MIN.



Teacher: That is right. The Sun is at the centre of the solar system. Now, how many planets revolve around the Sun?

Teacher: Excellent. There are eight planets in the solar system.

Teacher: Now, let us talk about the Moon. What do we call a heavenly body that moves around a planet?

Teacher: Well done. It is called a satellite. The Moon is the natural satellite of the Earth.

Teacher: The Moon does not always look the same. Can anyone name the different phases of the Moon?

Teacher: Great. The phases of the Moon are the new Moon, first quarter, full Moon and third quarter. Each phase appears different because sunlight falls on different parts of the Moon.

Teacher: Now, let us talk about stars. What makes stars special?

Teacher: That is correct. Stars are heavenly bodies that give out their own light.

Teacher: Sometimes, stars appear to form patterns in the night sky. Do you remember what we call these patterns?

Teacher: Yes. They are called constellations. Can anyone name a few constellations?

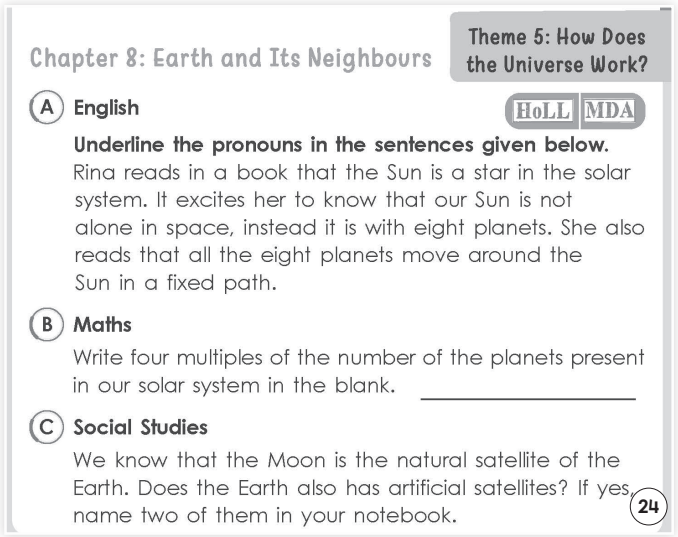
Teacher: Wonderful. Some examples are Ursa Major, Leo, Orion and Taurus.

Teacher: Our knowledge of stars and planets has grown because of the hard work of astronomers. Who can tell me which group of people study stars and planets?

Teacher: Fantastic. Astronomers study space and Indian astronomers have made great contributions to our understanding of the universe.

Teacher: You all remembered so much. Well done.

Book of Holistic Teaching



Chapter 8: Earth and Its Neighbours

Theme 5: How Does the Universe Work?

(A) English

HoLL MDA

Underline the pronouns in the sentences given below.

Rina reads in a book that the Sun is a star in the solar system. It excites her to know that our Sun is not alone in space, instead it is with eight planets. She also reads that all the eight planets move around the Sun in a fixed path.

(B) Maths

Write four multiples of the number of the planets present in our solar system in the blank. _____

(C) Social Studies

We know that the Moon is the natural satellite of the Earth. Does the Earth also has artificial satellites? If yes, name two of them in your notebook.

24

Refer to the Book of Holistic Teaching, page 24 under the title 'Earth and Its Neighbours.' Complete the activities mentioned in this section and ensure that the students complete them. These activities are designed to enhance their holistic understanding and engagement with the topic. Provide any necessary support and materials to help the students successfully finish the activities.

COULD DO

10 MIN.

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

(Instruct the students to bring their Workbook in their next period.)

Differentiated Activities

110 km/hr

What is the function of Triphala powder?

80 km/hr

What colour does the sunset on Mars appear?

40 km/hr

What is the Sun?

Home Task

Complete the constellation creation activity given in Trying better. Bring your constellation pattern to the next class and share your experience.

Period 8

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

Teacher: Great. Let us begin with a fun guessing game. I will give you clues and you have to guess the answer.

SHOULD DO

5 MIN.

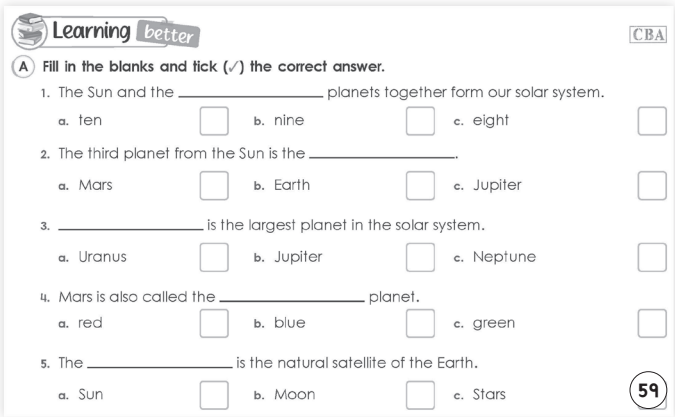
Teacher: Here is your first clue – I help in digestion and detoxify the liver when taken on an empty stomach. What am I? (Triphala powder)

Teacher: Well done. Here is another one – I am a pattern formed by a group of stars. What am I? (A constellation)

Teacher: Very good. Now, think about this – I am the colour of the sunset on Mars. What is it? (Blue)

Teacher: Excellent. Here is another one – I am a huge ball of fire and light. People on Earth see me every day. Who am I? (The Sun)

Teacher: Fantastic answers. Now, let us begin today's lesson.



Learning better

CBA

(A) **Fill in the blanks and tick (✓) the correct answer.**

1. The Sun and the _____ planets together form our solar system.
   a. ten ☐ b. nine ☐ c. eight ☐
2. The third planet from the Sun is the _____.
   a. Mars ☐ b. Earth ☐ c. Jupiter ☐
3. _____ is the largest planet in the solar system.
   a. Uranus ☐ b. Jupiter ☐ c. Neptune ☐
4. Mars is also called the _____ planet.
   a. red ☐ b. blue ☐ c. green ☐
5. The _____ is the natural satellite of the Earth.
   a. Sun ☐ b. Moon ☐ c. Stars ☐

59

Teacher: Everyone please open page 59 of your Main Coursebook. In Exercise 'A' of 'Learning better' you have to tick the correct answer. Are you ready to get started?

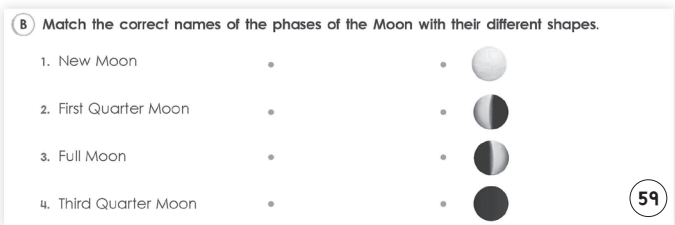
MUST DO

5 MIN.

Teacher: Great. Let us begin with the first question. The Sun and the _____planets together form our solar system.

Teacher: The correct answer is eight. Well done.

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



(B) **Match the correct names of the phases of the Moon with their different shapes.**

1. New Moon
2. First Quarter Moon
3. Full Moon
4. Third Quarter Moon

59

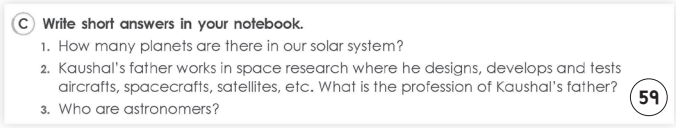
Teacher: Let us test our understanding of the phases of the Moon with a matching activity. Look at the first option. What is the name of the phase given?

MUST DO

5 MIN.

Teacher: That is right. It is the New Moon. Now, look at the different Moon shapes. Which one do you think matches the New Moon?

(Let the students complete the matching activity and discuss the correct answer.)



C Write short answers in your notebook.

1. How many planets are there in our solar system?
2. Kaushal's father works in space research where he designs, develops and tests aircrafts, spacecrafts, satellites, etc. What is the profession of Kaushal's father?
3. Who are astronomers?

59

Teacher: Now, 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?

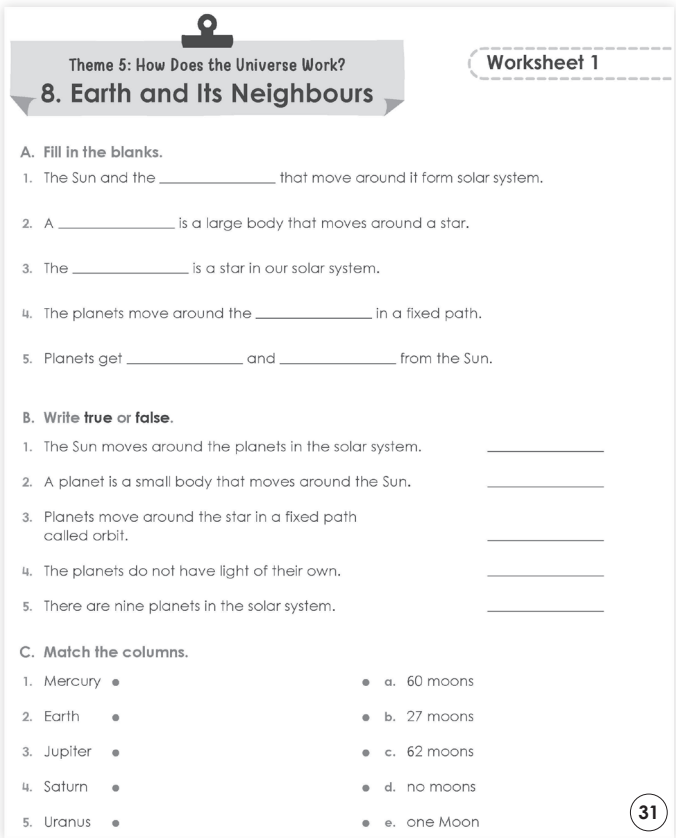
MUST DO
10 MIN.

Teacher: Great. Let us begin with the first question. How many planets are there in our solar system?

(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)

Worksheet 1



Theme 5: How Does the Universe Work?

8. Earth and Its Neighbours

Worksheet 1

A. Fill in the blanks.

1. The Sun and the _____ that move around it form solar system.
2. A _____ is a large body that moves around a star.
3. The _____ is a star in our solar system.
4. The planets move around the _____ in a fixed path.
5. Planets get _____ and _____ from the Sun.

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

1. The Sun moves around the planets in the solar system. _____
2. A planet is a small body that moves around the Sun. _____
3. Planets move around the star in a fixed path called orbit. _____
4. The planets do not have light of their own. _____
5. There are nine planets in the solar system. _____

C. Match the columns.

1. Mercury	a. 60 moons
2. Earth	b. 27 moons
3. Jupiter	c. 62 moons
4. Saturn	d. no moons
5. Uranus	e. one Moon

31

Teacher: Let us do some activities from the workbook. Everybody, please open page 31 of your workbook and answer the questions given in worksheet 1.

MUST DO
15 MIN.

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

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

Differentiated Activities

110 km/hr

Why is the New Moon not visible from Earth?

80 km/hr

Which phase of the Moon appears fully bright?

40 km/hr

What is the shape of the First Quarter Moon?

Home Task

Observe the Moon in the night sky for the next three days. Draw what you see and write one sentence about its shape each day. Bring your observations to the next class.

Period 9

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

Teacher: Great. Let us begin with a fun warm-up activity. I will ask you some questions from what we have learned so far. Let us see how many you can answer correctly.

SHOULD DO
5 MIN.

Teacher: Here is your first clue – I am the closest star to the Earth. What am I? (The Sun)

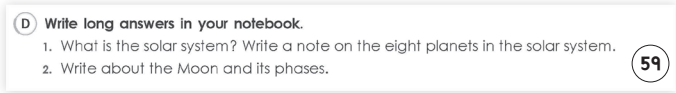
Teacher: Well done. Now, try this – I am a group of stars that form patterns in the night sky. What am I called? (A constellation)

Teacher: Very good. Here is another one – I am the natural satellite of the Earth. What am I? (The Moon)

Teacher: Excellent. Now, let us see if you can answer this one – Name any two phases of the Moon. (New Moon, Full Moon, First Quarter or Third Quarter)

Teacher: Fantastic. Here is the last one – Name one famous Indian astronomer who studied planetary motion. (Aryabhata)

Teacher: You all did an amazing job. Now, let us begin today's lesson.



D Write long answers in your notebook.

1. What is the solar system? Write a note on the eight planets in the solar system.
2. Write about the Moon and its phases.

59

Teacher: Everyone please open page 59 of your Main Coursebook. Let us explore some long-answer questions.

MUST DO
10 MIN.

In Exercise 'D' of the 'Learning better', you have to write a long answer. Let us begin with the first question. What is the solar system? Write a note on the eight planets in the solar system.

(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.)

Thinking better

Teacher: Let us begin with an interesting question. Imagine if the Earth were closer to the Sun. How do you think our life would be different?

MUST DO
5 MIN.

Thinking better
21st CS HOTS
Think and write the answer in your notebook.
If Earth were closer to the Sun, how would our life be different?
60

Teacher: Think carefully. What would happen to the temperature? How would plants, animals and humans be affected?

Teacher: Take a moment to write your answers in your notebook.

Choosing better

Teacher: Now, let us read about Dhruv and his father's conversation. Dhruv's father tells him that the Sun rises in the East and sets in the West every day. Even when the world is asleep, the Sun continues to shine and follow its path.

MUST DO
5 MIN.

Choosing better
LSV
Dhruv's father tells him that the Sun rises in the East and sets in the West every day. It rises even when the whole world is sleeping. Just like the Sun, humans should also do their work diligently and honestly, even when no one is watching them. What does Dhruv learn when his father tells him about the Sun? Tick (✓) the correct answer.
1. He should always do what he needs to do, even when no one is watching. ☐
2. He should always complete his work, without anyone telling him to do so. ☐
60

Teacher: He also explains that just like the Sun, humans should work diligently and honestly, even when no one is watching.

Teacher: Now, look at the two statements in your book. Which one do you think Dhruv learns from his father?

Teacher: Read the options carefully and put a tick next to the correct answer.

Worksheet 2

Worksheet 2

A. Colour the correct word from the given options.
1. Our solar system has one Sun and (eight/nine) planets.
2. (Venus/Earth) has one Moon.
3. Earth is the (second/third) planet of the solar system.
4. The surface of (Mars/Jupiter) is covered with red dust.
5. Saturn is the (sixth/seven) planet of the solar system.

B. Choose the appropriate word and write on the blanks.
1. _____ (Mercury/Venus) is the smallest planet.
2. _____ (Jupiter/Venus) has no Moon.
3. _____ (Mars/Jupiter) is the biggest and the coldest planet of solar system.
4. _____ (Saturn/Uranus) is the second largest planet of the solar system.
5. _____ (Uranus/Neptune) is cold planet and has 27 moons.

C. Identify the planet and write its name on the blank.
1. I am the smallest planet, closest to the Sun and have no Moons. _____
2. I am the hottest planet of the Solar system and have no Moons. _____
3. I am the only planet on which life exists. I have one Moon. _____
4. I am the biggest and coldest planet of the solar system. _____
5. I am a cold planet and blue in colour. _____
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 2.

MUST DO
15 MIN.

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

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

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

Differentiated Activities

110 km/hr

Name two constellations and describe their shapes.

80 km/hr

What is the natural satellite of the Earth and why does it shine?

40 km/hr

How many planets are there in our solar system?

Home Task

The Project Idea, given in the book of Project Ideas, page 18 under the title 'Earth and Its Neighbours.' 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: Good morning, students. How are you all today?

Teacher: Wonderful. Let us begin with a quick warm-up activity. I will ask you some questions about everything we have learned in this chapter. Let us see how well you remember.

SHOULD DO
5 MIN.

Teacher: Here is your first question – What is at the centre of the solar system? (the Sun)

Teacher: Well done. Now, tell me – What do we call a heavenly body that moves around a planet? (a satellite)

Teacher: Very good. Here is another one – Name any two phases of the Moon. (new Moon, first quarter, full Moon, third quarter)

Teacher: Excellent. Now, think about this – What do we call a group of stars that form a pattern in the sky? (a constellation)

Teacher: Fantastic. Here is the last one – Who was the Indian astronomer who discovered that the Moon does not have its own light? (Aryabhata)

Teacher: You all answered so well. Now, let us begin today's lesson.

Revising better

Teacher: We have learned about the different phases of the Moon. Let us take a moment to revise.

MUST DO
5 MIN.

Teacher: Can you recall the four main phases of the Moon? Think about the New Moon, First Quarter, Full Moon and Third Quarter.

Teacher: Now, open your Little Book and write about these phases in your own words.

Teacher: This will help you remember them better.

Pledging better

Teacher: Now, let us think about how we can take small steps to help the planet.

MUST DO
5 MIN.

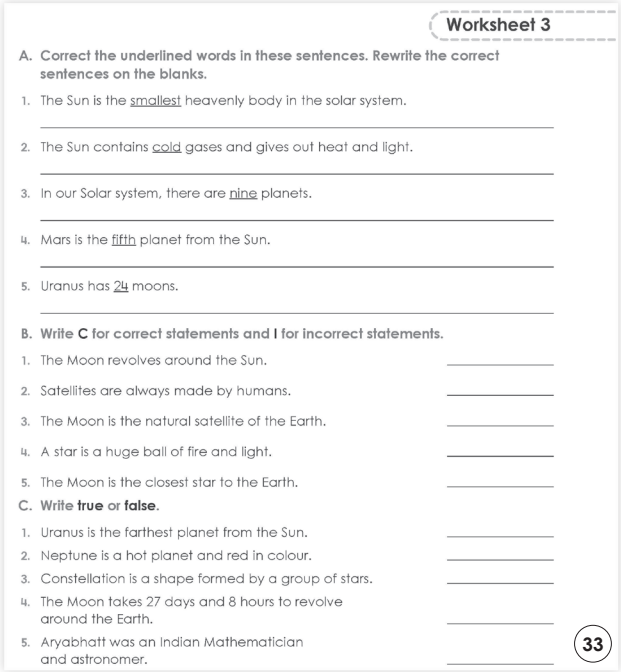
Teacher: Great. Look at the pledge in your book. Now, let us take this pledge together. Repeat after me: 'In my own little way, I pledge not to buy drinks in cans and plastic bottles.' Let us remember to act on this pledge and make a positive impact on our environment.

Teacher: Why do you think this pledge is important? How does avoiding plastic help the environment?

Teacher: How does this connect to SDG 13: Climate Action? Think about it and share your thoughts.

Teacher: Great. Let us all take this small step towards Climate Action and try to follow this pledge in our daily lives.

Worksheet 3



Worksheet 3

A. Correct the underlined words in these sentences. Rewrite the correct sentences on the blanks.

1. The Sun is the <u>smallest</u> heavenly body in the solar system.
2. The Sun contains <u>cold</u> gases and gives out heat and light.
3. In our Solar system, there are <u>nine</u> planets.
4. Mars is the <u>fifth</u> planet from the Sun.
5. Uranus has <u>24</u> moons.

B. Write C for correct statements and I for incorrect statements.

1. The Moon revolves around the Sun. ____
2. Satellites are always made by humans. ____
3. The Moon is the natural satellite of the Earth. ____
4. A star is a huge ball of fire and light. ____
5. The Moon is the closest star to the Earth. ____

C. Write true or false.

1. Uranus is the farthest planet from the Sun. ____
2. Neptune is a hot planet and red in colour. ____
3. Constellation is a shape formed by a group of stars. ____
4. The Moon takes 27 days and 8 hours to revolve around the Earth. ____
5. Aryabhatt was an Indian Mathematician and astronomer. ____

33

Teacher: Let us do some activities from the workbook. Everybody, please open page 33 of your workbook and answer the questions given in worksheet 3.

MUST DO
15 MIN.

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

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

Book of Project Ideas

Chapter 8: Earth and Its Neighbours

Theme 5: How Does the Universe Work?

Make an online presentation using the Internet* about the solar system.

ICT PRO 21st CS

- Find new and interesting information about the planets, their moons and the Sun.
- Find and show facts about each planet in our solar system (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune).
- Show pictures of different planets.
- Write unique features of each planet, such as size, surface conditions and atmosphere etc.
- Show information about the planet's moons (number of moons, interesting facts about major moons).
- Gather and write information about the Sun, including its composition, size, and importance to the solar system.

18

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

COULD DO
5 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

Why should we avoid plastic bottles?

80 km/hr

What does the Sun teach us about hard work?

40 km/hr

In which direction does the Sun rise?

Home Task

Complete the solar system model-making activity given in the 'Creating better' on page 60 of the Main Coursebook.

Bring your constellation pattern to the next class and share your experience.

Learning Outcomes

The students will:

Domain	Learning Outcome
Physical Development	• develop fine motor skills by engaging in hands-on activities such as drawing a globe, pasting coloured paper to depict land and water and creating a solar system model.
Socio-Emotional and Ethical Development	• appreciate the contributions of Indian astronomers, fostering a sense of pride in their cultural heritage. They will also engage in discussions and collaborative learning, promoting teamwork, communication and respect for others' perspectives.
Cognitive Development	• develop scientific reasoning by understanding celestial phenomena such as eclipses, planetary motion, phases of the Moon and the role of the Sun in sustaining life, promoting analytical thinking.
Language and Literacy Development	• expand their vocabulary with terms like 'orbit', 'constellation', 'satellite' and 'phases of the Moon' and enhance their listening, speaking, reading and writing skills through interactive discussions, answering comprehension questions and writing about planetary features.
Aesthetic and Cultural Development	• develop an appreciation for the beauty of the solar system by exploring constellations, phases of the Moon and planetary characteristics.
Positive Learning Habits	• cultivate curiosity about space science and develop a habit of questioning natural phenomena and responsible behaviour, such as reflecting on SDG 13 (Climate Action) by pledging to reduce plastic waste, reinforcing the importance of sustainable practices.

Starry Knights

Did you enjoy conducting the activities while teaching? Could you introduce any more activities?

Reward yourself with a STAR

Answers

Theme 5: How Does the Universe Work?
Lesson-8: Earth and Its Neighbours

Main Coursebook

Kinaesthetic:
Accept all relevant responses.

Auditory:

1. Mars is much colder than Earth. Also, Earth is at the right distance from the Sun, making it warm enough for water to stay liquid and for life to thrive.
2. Earth has one moon.

Pictorial

1. Solar
2. Lunar

Interacting better:

Accept all relevant responses.

Understanding better (Page 56)

1. Merury
2. Jupiter

Understanding better (Page 57)

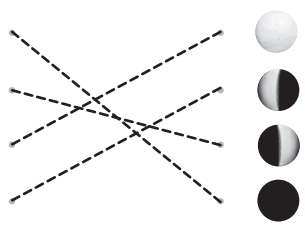
1. Moon
2. First quarter moon

Learning better

A. 1. c 2. b 3. b 4. a 5. b

B.

1. New Moon
2. First Quarter Moon
3. Full Moon
4. Third Quarter Moon



C. 1. Eight 2. Astronomer

3. The people who study heavenly bodies are called astronomers.

D. 1. The Sun and the planets that move around it form the solar system.

Mercury: Mercury is the smallest planet in our solar system. It is the closest planet to the Sun. Mercury has no Moons.

Venus: Venus is the second planet from the Sun. It is almost as big as the Earth. Venus is the hottest planet in our solar system. Venus has no Moons. The average surface temperature of Venus is 464 degree celsius.

Earth: The Earth is the third planet from the Sun. It is the only planet where life exists. The Earth has one Moon.

Mars: Mars is the fourth planet from the Sun. It has two Moons. It is called the red planet because its surface is covered with red dust.

Jupiter: Jupiter is the fifth planet from the Sun. It is the largest planet in the solar system. It has 95 Moons moving around it.

Saturn: Saturn is the sixth planet from the Sun. It is the second largest planet in the solar system. It is surrounded by beautiful rings. It has 146 Moons.

Uranus: Uranus is the seventh planet from the Sun. It is the third largest planet in our solar system. It is a very cold planet and has 28 Moons. Uranus has faint rings.

Neptune: Neptune is the farthest planet from the Sun. It is also a cold planet and is blue in colour. It has 16 Moons.

2. The Moon revolves around the Earth. The Moon is the natural satellite of the Earth. The Moon takes 27 days and 8 hours to revolve around the Earth. During this motion, the sunlight falls on the different parts of the Moon, resulting in its various shapes. These are called phases of the Moon.

Creating better:

Accept all relevant responses.

Thinking better:

If Earth were closer to the Sun, life on Earth would be very different and it might be harder for humans, animals and plants to survive. Our life must have been different in ways shared below:

a. Much hotter temperatures: The closer we are to the Sun, the hotter the Earth would be. This would make many places too hot to live in. Also, we might not have enough water and it would be difficult to grow food.

b. More dangerous weather: With more heat, the weather might become more extreme. There could be bigger storms, heat waves and droughts (times with no rain). This would make life very tough for people and animals.

c. Changes to plants and animals: Many plants and animals need a certain temperature to survive. If Earth were closer to the Sun, they might not be able to live because it would be too hot.

Some animals might not find enough food and plants might not be able to grow.

d. Shorter days: If Earth were closer to the Sun, it might also affect how long a day lasts. Days could be shorter or longer, which could mess up how plants grow or how animals sleep.

Choosing better:

2. He should always complete his work, without anyone telling him to do so.

Students' Worksheets

Worksheet 1

A. 1. planets 2. planet 3. Sun
4. Sun 5. light; heat

B. 1. False 2. False 3. True
4. True 5. False

C. 1. → d 2. → e 3. → a
4. → c 5. → b

Worksheet 2

A. 1. eight 2. Earth 3. third
4. Mars 5. sixth

B. 1. Mercury 2. Venus 3. Jupiter
4. Saturn 5. Uranus

C. 1. Mercury 2. Venus 3. Earth
4. Jupiter 5. Neptune

Worksheet 3

A. 1. The Sun is the largest heavenly body in the solar system.
2. The Sun contains hot gases and gives out heat and light.
3. In our Solar system, there are eight planets.
4. Mars is the fourth planet from the Sun.
5. Uranus has 27 moons.

B. 1. I 2. I 3. C 4. C 5. I

C. 1. False 2. False 3. True
4. True 5. True

Worksheet 4

A. 3, 4.

B. 1. The Sun and the planets that move around it form the solar system.
2. Planets are large bodies that move around a star.
3. The Sun is the largest heavenly body in the solar system.
4. The Moon revolves around the Earth.
5. Stars are huge balls of fire and light.

C. **URANUS:** Seventh planet from the Sun; Cold planet; 27 Moons

MARS: Fourth planet from the Sun; Red planet; 2 Moons

SATURN: Sixth planet from the Sun; Second largest planet; 62 Moons

Book of Holistic Teaching

Developing better

A. **English:**

Rina reads in a book that the Sun is a star in the solar system. It excites her to know that our Sun is not alone in space, instead it is with eight planets. She also reads that all the eight planets move around the
Sun in a fixed path.

B. **Maths:** 8, 16, 24, 32

C. **Social Studies:** INSAT-1B, APPLE

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Making better

Accept all relevant responses.