

Lesson Plan

Grade: Four	Subject: Science	Term: 3 rd	Time: 40min
Teacher's Name: _____		Week: 4	Day: 1
Chapter 9: Solar System and Our Earth		Topic: Solar System	

Students Learning Outcomes:

At the end of this period, the students will be able to:

- Describe and demonstrate the solar system with the sun at the center and the planets revolving around the sun.
- Identify the sun as a source of heat and light for the solar system.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook, Balls of different sizes

Warm-up Activities:

5mins

Before beginning the lesson, ask students to say "Tasmiya".

Ask them: What do you know about solar system? Why is sun important? Wait for their responses.

Teaching and Learning Activities:

25mins

- Write the topic name 'Solar system' on the board.
- Tell students you have learnt about planets in previous lecture. Today we will learn about distance of planets from the sun.
- Tell them planets are at different distances from the Sun. The planet nearest to the Sun is hottest and as you go farther from the sun, the planets get colder and colder.
- Tell students about the planets one by one and their distance from the sun.
- Tell them the distance of earth from the sun makes it neither so hot nor so cold that's why it is suitable for us to live on the Earth.
- Tell the students the sun looks bigger than the other stars because the sun is very near to the earth as compared to other stars. The closet planet to the sun is Mercury.
- Ask them to make a model of solar system with balls of different-sizes. Show Sun in the center and maintain size and distance of planets accordingly. Present this model to your teacher and classmates. Let them respond. Check their work.

Review:

3mins

Explain the main points about the distance of planets from the sun.

Evaluation:

5mins

To check the understanding of students, ask them:

- Which planets are hot and why?
- Which planets are cold and why?
- Is Earth hot or cold?

Homework:

2mins

Ask students to learn the topic.

Lesson Plan

Grade: Four	Subject: Science	Term: 3 rd	Time: 40min
Teacher's Name: _____		Week: 4	Day: 2
Chapter 9: Solar System and Our Earth		Topic: Moon	

Students Learning Outcomes:

At the end of this period, the students will be able to:

- Recognize that the Earth has a moon that revolves around it, and from it looks different at different times of the month.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook

Warm-up Activities:

5mins

Before beginning the lesson, ask students to say "Tasmiya."

Ask them: Why some planets are very hot and some are very cold? Wait for their responses and appreciate them for good response.

Teaching and Learning Activities:

25mins

- Write the topic name 'The Moon' on the board.
- Tell the students today we learn about moon.
- Tell most planets have natural satellites.
- The moon is a natural satellite. Our Earth has one moon. Its diameter is about one quarter the diameter of Earth. Moon completes one revolution around the Earth in about 29.5 days.
- Tell them, the moon is at a distance of about 384,400 kilometers from the earth. Moon has no light of its own, it only reflects the light of the sun to the Earth.
- Tell them moon is moving away approximately 3.8cm from Earth every year. Moon has no atmosphere. It means moon is un-protected from cosmic rays.

Review:

3mins

Explain the main points about the moon.

Evaluation:

5mins

To check the understanding of students, ask them:

- What is the distance of moon from the Earth?
- Can a moon have its own light?

Homework:

2mins

Ask students to learn the topic.

Lesson Plan

Grade: Four	Subject: Science	Term: 3 rd	Time: 40min
Teacher's Name: _____		Week: 4	Day: 3
Chapter 9: Solar System and Our Earth		Topic: Phases of Moon	

Students Learning Outcomes:

At the end of this period, the students will be able to:

- Recognize that the Earth has a moon that revolves around it, and from it looks different at different times of the month.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook, Worksheet

Warm-up Activities:

5mins

Before beginning the lesson, ask students to say "Tasmiya."

Ask them: What do you know about the Moon? What is satellite? Wait for their responses and appreciate them for good response.

Teaching and Learning Activities:

25mins

- Write the topic name 'Phases of Moon' on the board.
- Tell the students today we will learn about phases of moon.
- Tell them when we observe from the earth, we can notice the series of transformation within the shape of the Moon day by day.
- The changed shapes of the moon are called the 'Phases of the Moon'. Tell them about lunar month 'The moon revolves around the earth in 29 or 30 days to complete its orbit. This duration is called a lunar month.'
- On the first day of lunar month, we see a little portion of moon lit by sunlight. This shape is called crescent.
- Tell the students, the term 'Waning' and 'Waxing' are used to describe the phases of the moon.
- 'Waning' means a gradual decrease and 'Waxing' means a gradual increase in the size.
- Tell them that when we see a full circle shape of the moon in the sky it is a full moon.
- Now tell them about 'Last quarter of the moon'. A last quarter of the moon, also known as a third quarter of the moon, rises around midnight and sets around noon.

Review:

3mins

Explain the main points about the phases of the Moon.

Evaluation:

5mins

To check the understanding of students, ask them:

- What is full Moon?
- What is last quarter of the Moon?
- What is crescent?

- What is lunar month?

Homework:

2mins

Ask students to learn the topic and solve the given worksheet.

Worksheet

Q1. Draw the phases of the Moon.

New Moon Waxing Crescent Quarter Moon Waxing Gibbous Full Moon Waning Gibbous Third Quarter Waning Crescent

The Sun This Way ←

Mars This Way →

Lesson Plan

Grade: Four	Subject: Science	Term: 3 rd	Time: 40min
Teacher's Name: _____		Week: 4	Day: 4
Chapter 9: Solar System and Our Earth		Topic: Rotation of Earth	

Students Learning Outcomes:

At the end of this period, the students will be able to:

- Investigate and describe how days and nights are related to the earth's daily rotation about its axis and provide evidence of its rotation from the changing appearance of shadows during the day.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook, Paper, Paint, Worksheet

Warm-up Activities:

5mins

Before beginning the lesson, ask students to say "Tasmiya."

Ask them: What do you know about phases of the Moon? Wait for their responses.

Teaching and Learning Activities:

25mins

- Write the topic name 'Rotation of Earth' on the board.
- Tell students that the day and night come due to the rotation of Earth around its own axis. As Sun is our source of light that's why the part of Earth that faces the Sun have day time and the part of the Earth that faces away from the Sun have no light and there is night time.
- Earth completes its rotation around its axis in 24 hours. That's why there are 24 hours in one day.
- Earth revolves around the sun in a path called orbit. The axis of earth rotation is tilted by an angle of 23.5° .
- Ask students to make two balls of paper to make Earth and Sun. Ask them to color the side of the Earth facing the Sun to show day time and then rotate the Earth on its axis. Ask students to tell what happens to the colored side of the Earth. Let them respond. Check their work.

Review:

3mins

Explain the main points about the rotation of Earth.

Evaluation:

5mins

To check the understanding of students, ask them:

- How are day and night formed?
- What is day?
- What is night?

Homework:

2mins

Ask students to learn the topic and solve the given worksheet.

Worksheet

Q1. Write the short answers.

i) Define Orbit.

ii) How are day and night formed?

iii) What is night?

iv) What is crescent?

v) Name all planets in the solar system in sequence.

Lesson Plan

Grade: Four	Subject: Science	Term: 3 rd	Time: 40min
Teacher's Name: _____		Week: 4	Day: 5
Chapter 9: Solar System and Our Earth		Topic: Relation of Changing Shadows With Axial Rotation of Earth	

Students Learning Outcomes:

At the end of this period, the students will be able to:

- Investigate and describe how day and night are related to the earth's daily rotation about its axis and provide evidence of Earth's rotation from the changing appearance of shadows during the day.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook, Worksheet

Warm-up Activities:

5mins

Before beginning the lesson, ask students to say "Tasmiya".

Ask them: What do you know about formation of day and night? Wait for their responses.

Teaching and Learning Activities:

25mins

- Write the topic name 'Relation of Changing Shadows with Axial Rotation of Earth' on the board.
- Tell the students today we are going to learn about relation of changing shadows with axial relation of earth.
- Tell students that the shadow is formed when an object is placed in front of the Sun.
- In different time of the day our shadow changes its size according to the position of the sun.
- Draw a tree on the board and Sun to show morning. Tell students that the position of Sun is low to the Earth so the shadow formed is long and draw the shadow of the tree.
- Now draw the Sun of the mid-day and tell that in the mid-day the shadow formed is short now draw the shadow and tell students that it is because the position of the Sun is straight above our head.
- Now again draw the Sun to show sunset and tell students that the shadow formed is again long because of its position and then draw the shadow.
- Ask students to stand in the sunlight at different times of the day and draw their shadows with the chalk. Ask them to compare the different shadows with the position of Sun. Ask them to write about the difference in the shadows with reason. Wait for their responses. Check their work.
- Ask the students to open their textbooks and solve the activity.

Review:

3mins

Explain the main points about the changing shadow sizes during the day.

Evaluation:**5mins**

To check the understanding of students, ask them:

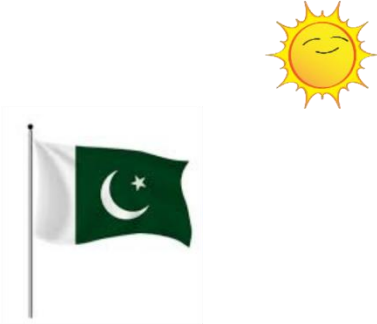



- Why are long shadows formed in the morning and evening?
- Why are shadows shorter at noon?

Homework:**2mins**

Ask students to learn the topic and solve the given worksheet.

Worksheet

Q1. Draw the shadow of the tree in each picture with the position of the Sun.

<p>6:00 a.m.</p> 	<p>12:00 p.m.</p> 
<p>10:00 a.m.</p> 	<p>5:00 p.m.</p> 

Q2. Answer the following questions.

i) At what time of the day is the shortest shadow formed?

ii) What happens when an object is placed in the path of light?
