

Bachelor of Education (Elementary) & Bachelor of Education (Secondary) STEM/BETT Unit Plan Template

Unit Title: <u>Daytime, Nighttime, the Sun, & the Moon</u>	Number of Lessons: <u>8</u>	Time (in weeks): <u>2</u>
Name: <u>Tanya Blackall</u>	Subject(s): <u>Science</u>	Grade(s): <u>1</u>

Rationale

This unit is important because young learners are naturally curious about the world around them, particularly the sky and the changes they observe from day to night. This unit introduces Grade 1 students to observable patterns in the sky such as daytime, nighttime, sunrise, and sunset, as well as the roles of the sun and moon. Through exploration, discussion, drawing, and simple writing activities, students begin to develop an understanding of how these patterns occur and how they affect everyday life.

Students are introduced to the idea that the sun provides light and warmth and that Earth’s rotation creates the cycle of day and night. They also explore the moon and learn that it appears in different shapes over time, known as phases. These experiences encourage students to observe the natural world, ask questions, and communicate their ideas.

A booklet is used throughout the unit as a science journal where students record their learning through drawing, labeling, and simple writing. Videos, demonstrations, and class discussions help make abstract concepts more accessible for young learners. By the end of the unit, students will have developed foundational knowledge about the patterns of the sky and will be encouraged to continue observing and wondering about the world around them.

Overview:

This Grade 1 science unit explores patterns in the sky through the study of daytime, nighttime, the sun, and the moon. Students begin by learning to distinguish between daytime and nighttime and identifying objects and activities associated with each. They then explore the sun and learn that it provides light and heat to Earth.

Students are introduced to the concept that Earth rotates, which causes the cycle of day and night. Through demonstrations and discussion, they begin to understand that the sun appears to move across the sky because Earth is turning. Students also learn about sunrise and sunset and illustrate the four times of day: sunrise, daytime, sunset, and nighttime.

Later lessons introduce the moon and its changing shapes, known as phases. Students observe images of the moon and learn that it can appear differently on different nights. The unit concludes with reflective and creative writing activities in which students consider where the sun goes when it is not visible and imagine what it would be like to travel into space as an astronaut.

Throughout the unit, student’s complete activities in a booklet that serves as a science journal. These activities allow students to demonstrate their learning through drawings, labeling, and simple written responses.

CORE COMPETENCIES

Communication	Thinking	Personal & Social
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<p>Collaborating <i>Working collectively</i></p> <ul style="list-style-type: none"> Students combine their efforts with those of others to effectively accomplish learning and tasks. As members of a group, they appreciate interdependence and cooperation, commit to needed roles and responsibilities, and are conscientious about contributing. They also negotiate respectfully and follow through on plans, strategies, and actions as they share resources, time, and spaces for collaborative projects. 	<p>Creative Thinking <i>Generating and incubating</i></p> <ul style="list-style-type: none"> Students may generate creative ideas through free play, engagement with other's ideas, or consideration of a problem or constraint, and/or because of their interests and passions. New ideas and inspirations can spontaneously arise from the unconscious mind, but students can also develop strategies to facilitate the generation of ideas – learning a lot about something, engaging in a period of reflection, providing time for incubation, and doing relaxing or automatic activities to quiet their conscious mind. The capacity for creative thinking expands as individuals increase their range of ideas and concepts to recombine them into new ideas. The ideas available as raw material for creative thinking depend on previous experiences and learning, as well as students' cultural legacies. 	<p>Personal Awareness & Responsibility <i>Self-advocating</i></p> <ul style="list-style-type: none"> Students who are personally aware and responsible have a sense of self-worth and a growing confidence in a variety of situations. They value themselves, their ideas, and their accomplishments. They are able to express their needs and seek help when needed, find purpose and motivation, act on decisions, and advocate for themselves.
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BIG IDEAS

(multiple subject areas for integrated unit)

Subject Name: Science 1	Subject Name: ELA 1	Subject Name: Arts Education 1
<ul style="list-style-type: none"> Observable patterns and cycles occur in the local sky and landscape. 	<ul style="list-style-type: none"> Curiosity and wonder lead us to new discoveries about ourselves and the world around us. 	<ul style="list-style-type: none"> Dance, drama, music, and visual arts express meaning in unique ways.

LEARNING STANDARDS

Curricular Competencies	Content
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<p>Questioning & predicting</p> <ul style="list-style-type: none"> • Demonstrate curiosity and a sense of wonder about the world • Observe objects and events in familiar contexts <p>Processing & analyzing data & information</p> <ul style="list-style-type: none"> • Identify simple patterns and connections <p>Applying & innovating</p> <ul style="list-style-type: none"> • Transfer and apply learning to new situations 	<ul style="list-style-type: none"> • Common objects in the sky • Local patterns that occur on Earth and in the sky
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Prerequisite Concepts and Skills:

<ul style="list-style-type: none"> • Ability to participate in group discussions • Ability to draw pictures to represent ideas • Ability to write simple words or short sentences • Basic understanding of daily routines (morning, day, night) • Ability to follow simple classroom instructions • Basic fine motor skills for coloring, cutting, and writing
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Teacher Preparation Required:

Lesson #	Teacher Preparation Required (See Unit Plan Sample)
Lesson 1	<ul style="list-style-type: none"> • Set up the laptop • Turn on the projector • Turn on the speakers • Prime the Day and Night video: https://www.youtube.com/watch?v=Wv-CRkSTYGs • Print & staple the student science booklet • Find pictures of the sun and moon
Lesson 2	<ul style="list-style-type: none"> • Collect the student science booklets • Find pictures of daytime scenes (sun, playground, school, etc.) on Canva or print for the magnifier • Set up laptop • Turn on projector • Set up magnifier
Lesson 3	<ul style="list-style-type: none"> • Collect the student science booklets • Set up the laptop • Set up the magnifier • Turn on the projector • Print or put into Canva: Pictures of nighttime scenes (moon, stars, nighttime sky) • Print or put into Canva: Pictures of nighttime animals (owl, bat, raccoon)
Lesson 4	<ul style="list-style-type: none"> • “What is the Sun?” video: https://www.youtube.com/watch?v=RzkJkEKV8Yk • Set up laptop • Turn on the projector • Turn on the speakers • Set up the magnifier • Collect the student science booklets

	<ul style="list-style-type: none"> • Find & print or add to Canva: Pictures showing the sun helping plants or warming Earth
Lesson 5	<ul style="list-style-type: none"> • Bring a good bright flashlight (to represent the sun) • Bring a globe (to represent Earth) • Collect the student science booklets • Set up the laptop • Turn on the projector • Set up the magnifier
Lesson 6	<ul style="list-style-type: none"> • Set up the Sunrise and Sunset video https://www.youtube.com/watch?v=SHogaqkeFRY • Collect the student science booklets • Set up the laptop • Turn on the projector • Set up the magnifier • Find & print pictures of sunrises & sunsets
Lesson 7	<ul style="list-style-type: none"> • Set up the video "What is the Moon?" https://www.youtube.com/watch?v=B-b4XvuOo1Y • Find & print pictures of the moon phases • Collect the student science booklets • Set up the laptop • Turn on the projector • Set up magnifier
Lesson 8	<ul style="list-style-type: none"> • Collect the student science booklets • Find & print pictures of astronauts and/or space • Set up laptop • Turn on the projector • Set up the magnifier

Cross-Curricular Connections:

English Language Arts (ELA)

- Writing short sentences about the sun, moon, sunrise, & sunset
- Listening & responding during class discussions
- Expressing ideas through drawing & writing

Arts Education

- Drawing illustrations of daytime, nighttime, & other related objects
- Creating visual representations of sunrise, sunset, & moon phases
- Creative expression through the "If I Were an Astronaut" drawing activity & others

Mathematics

- Recognizing patterns and sequences (sunrise → daytime → sunset → nighttime)
- Observing cycles and repeated patterns in the sky

Social Studies

- Discussing daily routines and how activities change between day and night

Aboriginal Connections/ First Peoples Principles of Learning:

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place.): Students will be exploring the sky and learning about why the patterns that occur do. By reflecting about their past experiences, they will compare their past knowledge to new learning to make connections that can be built upon in the future.

Universal Design for Learning (UDL)

Multiple Means of Representation

- Educational videos introduce concepts visually
- Teacher demonstrations using models (globe and flashlight)
- Visual images and diagrams of the sun, Earth, and moon
- Anchor charts created with students

Multiple Means of Engagement

- Interactive discussions and questioning
- Hands-on learning and visual exploration
- Opportunities for creativity and imagination

Multiple Means of Expression

Students demonstrate their understanding through:

- Drawing
- Labeling diagrams
- Fill-in-the-blank activities
- Short writing responses
- Verbal sharing and discussion

Differentiated Instructions (DI)

Support for Developing Learners

- Sentence starters provided for writing tasks (Emma K., Bowen, Chloe, Riaan, Fateh, Kurt)
- Visual supports and anchor charts
- Opportunities to respond through drawing (Bowen, Kurt, Chloe)
- Teacher or peer support during booklet activities (Bowen, Baldev)

Support for English Language Learners

- Use of visuals and gestures (Riaan, Fateh)
- Clear explanation of vocabulary such as sun, moon, sunrise, and sunset
- Opportunities to practice speaking during discussions

Extensions for Advanced Learners

- Writing additional sentences about space or the sun (Nico, Lily, Adler, Jameson, Silas)
- Asking questions about space exploration
- Drawing and labeling additional moon phases

Overview of Lessons:

Lesson 1: Introduction to Day & Night

Name & Time (Minutes Allotted):	Introduction to Day & Night – 40 minutes
Learning Standards: Curricular Competencies	Questioning & predicting <ul style="list-style-type: none"> • Demonstrate curiosity and a sense of wonder about the world • Observe objects and events in familiar contexts
Learning Standards: Content	<ul style="list-style-type: none"> • Local patterns that occur on Earth and in the sky
Instructional Objectives	<ul style="list-style-type: none"> • Identify the difference between daytime and nighttime • Recognize that the sun is usually seen during the day • Recognize that the moon is often seen at night • Share ideas about what they see in the sky during the day and night • Record their thinking through drawing and simple writing in their science booklet

Assessment:	<ul style="list-style-type: none"> • Student participation in discussions • Observations during booklet activities • Student drawings and written responses
Teaching Strategies:	<ul style="list-style-type: none"> • Activate prior knowledge: Discussion with students about what they see in the sky during the day and at night • Use visual supports: Show pictures of the sun and moon • Use anchor charts on the board for daytime vs nighttime • Video hook: Play a short Day and Night video to introduce the concept • Demonstrate how to complete the booklet page (drawing and writing) • Guided practice: Support students as they complete the Day and Night pages and “Where does the sun go?” writing page • Scaffolding: Provide sentence starters for students who need help with writing • Check for understanding: Ask students questions during discussions (i.e. “When do we see the sun? When do we see the moon?”) • Encourage creativity: Allow students to draw their own representations of day and night
Materials:	<ul style="list-style-type: none"> • Day and Night video: https://www.youtube.com/watch?v=Wv-CRKsTYGs • Student science booklet • Pencils • Erasers • Crayons • Whiteboard • Dry erase markers • Pictures of the sun and moon
Lesson Activities:	
Introduction/Hook:	<p>Video introduction (7 min.) The teacher will ask students:</p> <ul style="list-style-type: none"> • “What do you see in the sky during the day?” • “What do you see in the sky at night?” • Allow several students to share ideas. • Show the Day and Night video to introduce the concept of daytime and nighttime. <p>After the video, briefly ask:</p> <ul style="list-style-type: none"> • “When do we see the sun?” • “When do we see the moon?” • Explain that daytime is when the sun is in the sky and nighttime is when the sky is dark and we often see the moon and stars.
Body:	<p>Class Discussion – Day vs Night (5 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Create a Day vs Night anchor chart on the board <ul style="list-style-type: none"> ○ Draw two columns labeled: Daytime Nighttime • Ask students to suggest things they see or do during each time. <ul style="list-style-type: none"> ○ Example responses: Daytime Sun

	<p>Going to school Playing outside</p> <p>Nighttime Moon Stars Sleeping</p> <ul style="list-style-type: none"> • Write student ideas on the chart. <p>Booklet Activity – (10 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Explain the pages that they will be doing in the booklet • Circulate to support students <p>Writing Activity – Where Does the Sun Go? (15 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Explain that sometimes we cannot see the sun. <p>Ask students:</p> <ul style="list-style-type: none"> • “Where do you think the sun goes when it is not out?” • Allow students to briefly share ideas. • Explain the booklet page, “Where does the sun go when it is not out?” • Remind students there is no wrong answer, as they are sharing their current thinking.
Closure:	<p>Reflection (3 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Ask: “What do we call it when we see the sun?” • “What do we call it when we see the moon?” <ul style="list-style-type: none"> • Explain that in future lessons they will learn: • more about the sun, moon, & why we have day and night

Lesson 2: All About Daytime

Name & Time (Minutes Allotted):	All About Daytime – 40 minutes
Learning Standards: Curricular Competencies	<p>Questioning & predicting</p> <ul style="list-style-type: none"> • Demonstrate curiosity and a sense of wonder about the world • Observe objects and events in familiar contexts <p>Processing & analyzing data & information</p> <ul style="list-style-type: none"> • Identify simple patterns and connections
Learning Standards: Content	<ul style="list-style-type: none"> • Common objects in the sky • Local patterns that occur on Earth and in the sky
Instructional Objectives	<ul style="list-style-type: none"> • Identify things they see during the daytime • Describe activities that commonly happen during the day • Record their ideas through drawing and simple writing
Assessment:	<ul style="list-style-type: none"> • Participation in class discussion • Observations during student work • Student drawings and written responses in their booklet
Teaching Strategies:	<ul style="list-style-type: none"> • Activate prior knowledge by asking students about their daytime routines • Use of visual supports through pictures of daytime scenes • Use of class brainstorming to build a list of daytime activities

	<ul style="list-style-type: none"> • Teacher modeling of how to complete the booklet page • Guided practice while students complete the activity • Circulation and support to assist students with writing and drawing
Materials:	<ul style="list-style-type: none"> • Student science booklet • Pencils • Crayons • Whiteboard • Dry erase markers • Pictures of daytime scenes (sun, playground, school, etc.) on Canva or print for the magnifier • Laptop • Projector • Magnifier
Lesson Activities:	
Introduction/Hook:	<p>Warm-Up Review (3 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Begin by reviewing the previous lesson & ask students: • <i>"What did we learn about daytime and nighttime?"</i> • <i>"When do we see the sun?"</i> <p>Show a picture of the sun and ask:</p> <ul style="list-style-type: none"> • <i>"What time of day do we usually see this?"</i> <ul style="list-style-type: none"> • Explain that today the class will learn more about daytime.
Body:	<p>Brainstorming Daytime Activities (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Ask students to close their eyes and imagine a daytime scene. <p>Ask guiding questions:</p> <ul style="list-style-type: none"> • <i>"What do you see outside during the day?"</i> • <i>"What do people do during the day?"</i> • <i>"What do animals do during the day?"</i> • Create a Daytime anchor chart on the board and record student responses. <p>Examples may include:</p> <ul style="list-style-type: none"> ○ Sun ○ Clouds ○ playing outside ○ going to school ○ riding bikes <ul style="list-style-type: none"> • Encourage students to share different ideas. <p>Teacher Modeling (4 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Show students the All About Daytime booklet page. • Read the sentence prompts aloud. • Model an example on the board: Example: <i>"During the day I see the sun."</i> <ul style="list-style-type: none"> ○ Draw a simple picture to show what the finished page might look like. • Explain that students will write and draw their own ideas.
Closure:	<p>Student Work Time (23 minutes)</p> <p>Students complete the All About Daytime booklet page.</p>

	<p>They will:</p> <ul style="list-style-type: none"> • Fill in the sentence prompts • Draw something they see or do during the day <p>Teacher will circulate to:</p> <ul style="list-style-type: none"> • Support writing • Encourage detailed drawings • Ask students questions about their pictures <p>Example prompts to ask students:</p> <ul style="list-style-type: none"> • <i>"What is happening in your picture?"</i> • <i>"Where is the sun in your drawing?"</i> <p>Sharing and Closure (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Invite a few students to share their work & ask: • <i>"What is one thing you like to do during the day?"</i> • Explain that next lesson they will learn about nighttime.
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Lesson 3: All About Nighttime

Name & Time (Minutes Allotted):	All About Nighttime – 40 minutes
Learning Standards: Curricular Competencies	<p>Questioning & predicting</p> <ul style="list-style-type: none"> • Demonstrate curiosity and a sense of wonder about the world • Observe objects and events in familiar contexts <p>Processing & analyzing data & information</p> <ul style="list-style-type: none"> • Identify simple patterns and connections
Learning Standards: Content	<ul style="list-style-type: none"> • Common objects in the sky • Local patterns that occur on Earth and in the sky
Instructional Objectives	<ul style="list-style-type: none"> • Identify objects seen in the sky at night • Describe common nighttime activities • Represent ideas through drawing and writing
Assessment:	<ul style="list-style-type: none"> • Participation in discussion • Student drawings and writing • Understanding of nighttime concepts
Teaching Strategies:	<ul style="list-style-type: none"> • Activation of prior knowledge by reviewing the previous lesson about daytime and asking students what they remember • Use of visual supports such as pictures of the moon, stars, and nighttime sky to help students understand nighttime concepts • Use of a class brainstorming session to create a list of things students see or do during the night • Compare and contrast daytime and nighttime using an anchor chart on the whiteboard • Teacher modeling to demonstrate how to complete the nighttime booklet page • Guided practice while students work on the booklet activity • Questioning strategies to encourage thinking (i.e. "What do you see in the sky at night?") • Partner sharing so students can explain their drawings and ideas to a classmate • Encouraging creativity by allowing students to draw their own nighttime scenes
Materials:	<ul style="list-style-type: none"> • Student science booklet • Crayons • Pencils

	<ul style="list-style-type: none"> • Erasers • Laptop • Magnifier • Internet • Projector • Dry erase markers • Whiteboard • Pictures of nighttime scenes (moon, stars, nighttime sky) • Pictures of nighttime animals (owl, bat, raccoon)
Lesson Activities:	
Introduction/Hook:	<p>Review Daytime (3 minutes) The teacher will ask students:</p> <ul style="list-style-type: none"> • “What did we learn about daytime yesterday?” • “What do we see in the sky during the day?” • Tell students that today they will explore nighttime.
Body:	<p>Nighttime Discussion (7 minutes) The teacher will show pictures of:</p> <ul style="list-style-type: none"> • The moon • Stars • Sleeping animals • The nighttime sky <p>Ask students:</p> <ul style="list-style-type: none"> • “What do you notice in these pictures?” • “What do you usually do at night?” • Create a nighttime anchor chart on the board & discuss ideas about things that happen when it’s dark outside <p>Possible responses:</p> <ul style="list-style-type: none"> • The moon • Stars • Sleeping • Bedtime • Quiet • Explain that nighttime is when the sky becomes dark. <p>Teacher Modeling (5 minutes) The teacher will show the All About Nighttime booklet page.</p> <ul style="list-style-type: none"> • Read the prompts aloud. • Model one example sentence and drawing. • Example: “<i>At night I see the moon.</i>”
Closure:	<p>Student Work Time (20 minutes) Students complete the Nighttime booklet page. They will:</p> <ul style="list-style-type: none"> • Fill in sentence prompts • Draw a nighttime scene <p>The teacher will:</p> <ul style="list-style-type: none"> • Circulate and supports students. • Encourage students to add: <ul style="list-style-type: none"> ○ Stars ○ Moon

	<ul style="list-style-type: none"> ○ Nighttime activities <p>Partner Share (5 minutes)</p> <ul style="list-style-type: none"> • Students will turn to an elbow partner and share their drawings. The teacher will ask for volunteers to share: <ul style="list-style-type: none"> • “What did you draw for nighttime?” • Explain that students will soon learn more about the sun.
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Lesson 4: What is the sun?

Name & Time (Minutes Allotted):	What is the sun? – 40 minutes
Learning Standards: Curricular Competencies	<p>Questioning & predicting</p> <ul style="list-style-type: none"> • Demonstrate curiosity and a sense of wonder about the world • Observe objects and events in familiar contexts <p>Processing & analyzing data & information</p> <ul style="list-style-type: none"> • Identify simple patterns and connections <p>Applying & innovating</p> <ul style="list-style-type: none"> • Transfer and apply learning to new situations
Learning Standards: Content	<ul style="list-style-type: none"> • Common objects in the sky • Local patterns that occur on Earth and in the sky
Instructional Objectives	<ul style="list-style-type: none"> • Identify the sun as a source of light and heat • Explain ways the sun helps living things • Communicate ideas through drawing and writing
Assessment:	<ul style="list-style-type: none"> • Participation in discussion • Student writing responses • Student drawings demonstrating understanding
Teaching Strategies:	<ul style="list-style-type: none"> • Use of a video hook to introduce the concept of the sun • Use of a guided discussion to build understanding about why the sun is important • Use of visual supports such as pictures and diagrams • Teacher modeling of the writing activity • Sentence starters to support developing writers • The teacher circulating for support while students complete their work
Materials:	<ul style="list-style-type: none"> • “What is the Sun?” video • Laptop • Projector • Speakers • Magnifier • Whiteboard • Dry erase markers • Student science booklets • Pencils • Crayons • Erasers • Pictures showing the sun helping plants or warming Earth
Lesson Activities:	
Introduction/Hook:	<p>Video Hook (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Show the What is the Sun? video:

	<p>https://www.youtube.com/watch?v=RzkJkEKV8Yk</p> <ul style="list-style-type: none"> • Ask students to watch for: <ul style="list-style-type: none"> ○ What the sun gives us ○ Why the sun is important • <i>"If you haven't already guessed, we'll be looking more closely at the sun today."</i>
Body:	<p>Guided Discussion (8 minutes) The teacher will ask & write responses on the whiteboard:</p> <ul style="list-style-type: none"> • <i>"What did you learn about the sun?"</i> • <i>"What does the sun give us?"</i> <p>Guide students toward:</p> <ul style="list-style-type: none"> • Light • Warmth • Helps plants grow <p>Extended Learning Review from the Video (5 minutes) The teacher will state & review that:</p> <ul style="list-style-type: none"> • <i>"The sun is a star."</i> • <i>"It gives light and heat."</i> • <i>"It helps plants, animals, and people."</i> <ul style="list-style-type: none"> • Show simple examples such as: <ul style="list-style-type: none"> ○ Plants growing ○ People staying warm ○ Gives us light during the day
Closure:	<p>Writing and Drawing Activity (20 minutes)</p> <p>The teacher will explain the page in their booklet that they will be doing (The sun helps us by:).</p> <ul style="list-style-type: none"> • On the page, students will complete the sentence: The sun helps us by _____. • Students will also draw a picture showing how the sun helps. • The teacher will support writing with sentence starters if needed. <p>Closure (2 minutes) The teacher will ask students:</p> <ul style="list-style-type: none"> • <i>"Why is the sun important?"</i> • Explain that next lesson they will learn is why we have day and night.

Lesson 5: Earth's Rotation (Why We Have Day & Night)

Name & Time (Minutes Allotted):	Earth's Rotation (Why We Have Day & Night) – 40 minutes
Learning Standards: Curricular Competencies	<p>Questioning & predicting</p> <ul style="list-style-type: none"> • Demonstrate curiosity and a sense of wonder about the world • Observe objects and events in familiar contexts <p>Processing & analyzing data & information</p> <ul style="list-style-type: none"> • Identify simple patterns and connections <p>Applying & innovating</p> <ul style="list-style-type: none"> • Transfer and apply learning to new situations
Learning Standards: Content	<ul style="list-style-type: none"> • Common objects in the sky • Local patterns that occur on Earth and in the sky

Instructional Objectives	<ul style="list-style-type: none"> • Understand that Earth turning causes day and night • Observe how sunlight reaches different parts of Earth • Demonstrate understanding through a coloring and discussion activity
Assessment:	<ul style="list-style-type: none"> • Observation during demonstration and movement activity • Student participation in discussion • Completion of booklet activity
Teaching Strategies:	<ul style="list-style-type: none"> • Use of a hands-on demonstration using flashlight and globe • Use of a movement activity to help students visualize Earth's rotation • Use of guided questioning to check for understanding • Use of visual modeling before booklet completion • Use of interactive learning to keep students engaged
Materials:	<ul style="list-style-type: none"> • Flashlight (to represent the sun) • Globe or ball (to represent Earth) • Student science booklets • Crayons
Lesson Activities:	
Introduction/Hook:	<p>Review Previous Learning (3 minutes) The teacher will ask students:</p> <ul style="list-style-type: none"> • <i>"What did we learn about the sun?"</i> • <i>"When do we see the sun?"</i> <ul style="list-style-type: none"> • Explain that today they will learn why day and night happen.
Body:	<p>Demonstration (5 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Use a flashlight as the sun and a globe as Earth by shining the flashlight on one side of the globe. <p>Explain:</p> <ul style="list-style-type: none"> • <i>"The side facing the sun has daytime."</i> • <i>"The side facing away from the sun has nighttime."</i> <ul style="list-style-type: none"> • Slowly rotate the globe to demonstrate Earth's rotation. <p>Student Movement Activity (10 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Have the students stand up. • Explain that we will be doing an example of how the sun shines on the Earth & the changes that happen. • <i>"I am going to represent the sun."</i> • <i>"You are all going to be Earth from where you are standing."</i> • <i>"How does the Earth move?"</i> (students should say rotate) • <i>"Okay, let's do that."</i> <ul style="list-style-type: none"> ○ The teacher will represent the sun moving arms around to show solar flares and dynamics. ○ Students slowly turn their bodies. • The teacher will explain: <ul style="list-style-type: none"> ○ Facing the sun = daytime – <i>"If you are facing the sun, what time of the day is it for you?"</i> (Daytime)

	<ul style="list-style-type: none"> Turning away = nighttime – <i>“If you are turning away from the sun, what time of the day is it for you?”</i> (Nighttime)
Closure:	<p>Booklet Activity (20 minutes) The teacher will explain that students will complete the Earth’s Rotation coloring page. They will:</p> <ul style="list-style-type: none"> Color the sun Color the Earth Identify the daytime side <p>The teacher will walk around to support students & ask questions such as:</p> <ul style="list-style-type: none"> <i>“Which side is daytime?”</i> <i>“Which side is nighttime?”</i> <p>Closure (2 minutes) The teacher will ask students:</p> <ul style="list-style-type: none"> <i>“So why do we have day and night?”</i> Reinforce the idea that Earth turning causes day and night.

Lesson 6: Sunrise & Sunset

Name & Time (Minutes Allotted):	Sunrise & Sunset – 40 minutes
Learning Standards: Curricular Competencies	<p>Questioning & predicting</p> <ul style="list-style-type: none"> Demonstrate curiosity and a sense of wonder about the world Observe objects and events in familiar contexts <p>Processing & analyzing data & information</p> <ul style="list-style-type: none"> Identify simple patterns and connections <p>Applying & innovating</p> <ul style="list-style-type: none"> Transfer and apply learning to new situations
Learning Standards: Content	<ul style="list-style-type: none"> Common objects in the sky Local patterns that occur on Earth and in the sky
Instructional Objectives	<ul style="list-style-type: none"> Identify sunrise and sunset Understand the sequence of the day Illustrate the four times of day
Assessment:	<ul style="list-style-type: none"> Student drawings of the two times of day (sunrise & sunset) Writing responses about sunrise and sunset Participation in discussion
Teaching Strategies:	<ul style="list-style-type: none"> Use of a video hook to introduce sunrise and sunset https://www.youtube.com/watch?v=SHogagkeFRY Sequencing instruction to show daily patterns Use of visual supports using diagrams and drawings Teacher modeling before drawing activity Use of a guided discussion to reinforce vocabulary
Materials:	<ul style="list-style-type: none"> Sunrise and Sunset video Student science booklets Pencils Erasers Crayons Whiteboard Dry erase markers Laptop Projector

	<ul style="list-style-type: none"> • Magnifier • Pictures of sunrise & sunset
Lesson Activities:	
Introduction/Hook:	Video Hook (5 minutes) The teacher will: <ul style="list-style-type: none"> • Play the Sunrise and Sunset video. • Ask students to watch for: <ul style="list-style-type: none"> ○ When the sun rises ○ When the sun sets • <i>"So today we will be looking more closely at sunrise & sunset."</i>
Body:	Guided Discussion (5 minutes) The teacher will: <ul style="list-style-type: none"> • Show pictures of sunrise & sunset Ask students: <ul style="list-style-type: none"> • <i>"What happens at sunrise?"</i> • <i>"What happens at sunset?"</i> Explain: <ul style="list-style-type: none"> • Sunrise = the sun comes up in the east • Sunset = the sun goes down in the west Sequencing Activity (7 minutes) Draw four boxes on the board: <ol style="list-style-type: none"> 1. Sunrise 2. Daytime 3. Sunset 4. Nighttime The teacher will discuss the order of these events. <ul style="list-style-type: none"> • <i>"What happens at _____?"</i> • <i>"What happens to the temperature on Earth at _____?"</i> • <i>"What do we see at _____?"</i>
Closure:	Booklet Activity (20 minutes) Students complete the Illustrate the Two Times of Day page. Students will draw pictures showing: <ul style="list-style-type: none"> • Sunrise • Sunset • Complete the short writing about sunrise and sunset. <ul style="list-style-type: none"> • The teacher will circulate and supports students. Closure (3 minutes) The teacher will review the sequence: <ul style="list-style-type: none"> • Sunrise → Daytime → Sunset → Nighttime • Ask students, <i>"What happens after sunset?"</i> • <i>"What happens after sunrise?"</i>

Lesson 7: What is the Moon?

Name & Time (Minutes Allotted):	What is the Moon? – 45 minutes
Learning Standards: Curricular Competencies	Questioning & predicting <ul style="list-style-type: none"> • Demonstrate curiosity and a sense of wonder about the world • Observe objects and events in familiar contexts Processing & analyzing data & information

	<ul style="list-style-type: none"> Identify simple patterns and connections Applying & innovating <ul style="list-style-type: none"> Transfer and apply learning to new situations
Learning Standards: Content	<ul style="list-style-type: none"> Common objects in the sky Local patterns that occur on Earth and in the sky
Instructional Objectives	<ul style="list-style-type: none"> Identify the moon as an object in the night sky Recognize that the moon changes shape Label basic moon phases
Assessment:	<ul style="list-style-type: none"> Identify the moon as an object in the night sky Recognize that the moon changes shape Label basic moon phases
Teaching Strategies:	<ul style="list-style-type: none"> Use of a video hook to introduce the moon https://www.youtube.com/watch?v=B-b4XvuOo1Y Use of visual learning using moon phase pictures Use of a guided discussion to build understanding Teacher modeling before labeling activity Hands-on support while students work
Materials:	<ul style="list-style-type: none"> "What is the Moon?" video https://www.youtube.com/watch?v=B-b4XvuOo1Y Changed to: https://www.youtube.com/watch?v=yXe0yxzYkjo Pictures of moon phases Student science booklets Pencils Crayons Laptop Projector Internet Magnifier
Lesson Activities:	
Introduction/Hook:	<p>Video Hook (5 minutes) The teacher will play the What is the Moon? Video</p> <p>Discussion (3 minutes) The teacher will ask:</p> <ul style="list-style-type: none"> "When do we usually see the moon?" "What does the moon look like?" <ul style="list-style-type: none"> Explain that the moon can look different on different nights. "We will be looking more closely at the moon phases today."
Body:	<p>Moon Phase Pictures (5 minutes) The teacher will show images of:</p> <ul style="list-style-type: none"> Full moon Crescent moons Quarter moons Gibbous moons New moon <ul style="list-style-type: none"> Explain that: "These are called moon phases & they change daily because the Earth is rotating so we see the moon at a slightly different angle each day."

	<p>Modelling of the Booklet Page on Moon Phases (8 minutes)</p> <p>The teacher will run through how to complete the booklet pages</p> <ul style="list-style-type: none"> • “Let’s do the 1st phase together on the shaded moon phase page.” • “We see that the Earth is in the middle of the page so the sun would be on the opposite side on this sheet. What phase would the top be? (full moon) • “If the top phase is the full moon phase, what would the bottom moon be?” (new moon – it’s still there but we can’t see it) • “Let’s move to the other labelling sheet.” • “Using the word bank that is given on the sheet, you will use those to label the phases as shown in the pictures for BOTH sheets.” • “Let’s do the 1st one together on this page.” • With the class, do the 1st phase together.
Closure:	<p>Booklet Activities (22 minutes)</p> <ul style="list-style-type: none"> • Students complete the moon phases labeling pages • The teacher will circulate and help students match labels to moon shapes & encourage students to notice differences in shapes as they were shown. <p>Closure (2 minutes)</p> <p>Ask students:</p> <ul style="list-style-type: none"> • “Does the moon always look the same?” (No!) • Explain that the moon changes shape over time.

Lesson 8: If I Were an Astronaut

Name & Time (Minutes Allotted):	If I were an astronaut – 40 minutes
Learning Standards: Curricular Competencies	<p>Questioning & predicting</p> <ul style="list-style-type: none"> • Demonstrate curiosity and a sense of wonder about the world • Observe objects and events in familiar contexts <p>Processing & analyzing data & information</p> <ul style="list-style-type: none"> • Identify simple patterns and connections <p>Applying & innovating</p> <ul style="list-style-type: none"> • Transfer and apply learning to new situations
Learning Standards: Content	<ul style="list-style-type: none"> • Common objects in the sky • Local patterns that occur on Earth and in the sky
Instructional Objectives	<ul style="list-style-type: none"> • Reflect on what they learned about the sun, moon, and day/night • Use imagination to describe being an astronaut • Communicate ideas through drawing and writing
Assessment:	<ul style="list-style-type: none"> • Student participation during review discussion • Completion of writing and drawing activity • Student ability to express ideas about space and the sky
Teaching Strategies:	<ul style="list-style-type: none"> • Use of review discussion of key concepts from the unit • Use of creative thinking prompts about space exploration • Use of sentence starters to support student writing • Encouraging creativity through drawing • Sharing opportunities to build confidence
Materials:	<ul style="list-style-type: none"> • Student science booklets • Pencils, crayons, & erasers • Pictures of astronauts or space • Laptop

	<ul style="list-style-type: none"> • Projector • Magnifier
Lesson Activities:	
Introduction/Hook:	Unit Review Discussion (10 minutes) The teacher will ask students: <ul style="list-style-type: none"> • “What did we learn about the sun?” • “What did we learn about the moon?” • “Why do we have day and night?” <ul style="list-style-type: none"> • Encourage students to share ideas.
Body:	Introduce Astronauts (5 minutes) The teacher will show pictures of astronauts & explain: <ul style="list-style-type: none"> • Astronauts travel into space to explore the Earth, moon, and stars. • “What do you think astronauts see in space?” • “What types of jobs do you think astronauts do in space?” • “We’re going to put on our imagination hats today and you’re going to imagine being an astronaut in space.” Writing and Drawing Activity (20 minutes) <ul style="list-style-type: none"> • The teacher will explain the page • The students will complete the If I Were an Astronaut page by: <ul style="list-style-type: none"> ○ Drawing themselves in space ○ Write a sentence about what they would see • The teacher will circulate and give support to the writing portion with sentence starters if needed.
Closure:	Sharing and Celebration (5 minutes) <ul style="list-style-type: none"> • The teacher will invite students to share their astronaut drawings & stories • Celebrate their learning from the unit

Resources:

<p>Lesson 1: https://www.youtube.com/watch?v=Wv-CRksTYGs</p> <p>Lesson 4: https://www.youtube.com/watch?v=RzkJkEKV8Yk</p> <p>Lesson 6: https://www.youtube.com/watch?v=SHogaqkeFRY</p> <p>Lesson 7: https://www.youtube.com/watch?v=B-b4XvuQo1Y</p>

Extensions to Unit:

<ul style="list-style-type: none"> • Day and Night Observation Journal • Build a Sun–Earth Model • Moon Phases Craft (i.e. use Oreo cookies to make the phases of the moon) • Day vs Night Animal Sort
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Reflections and Revisions

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