


● Lesson 2 Rubric:  Earth Science Rubric: Lesson 2

	3	2	1
Accuracy of Writing	The writing, drawing and captions accurately shows how the Earth revolves around the sun by using facts and vocabulary from the text..	The writing, drawing and captions mostly show how the Earth revolves around the sun by using some facts and vocabulary from the text..	The writing, drawing and captions attempts to show how the Earth revolves around the sun by using few facts and vocabulary from the text..
Organization	The writing includes an introduction, facts, conclusion and unit vocabulary.	The writing includes 2 out of 3: an introduction, facts, conclusion and some unit vocabulary.	The writing includes 1 out of 3: an introduction, facts, conclusion and little to no unit vocabulary.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias



Teacher Notes:

Lesson 3			
Grade: 1st	Unit: Earth Science	Lesson Title: What Makes Night and Day	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> I am learning that the Earth rotates on an axis and that this rotation causes day and night. 		<ul style="list-style-type: none"> I can identify key words and details in the text that describe the Earth's movement. I can use text features to explain how the Earth's rotation creates the pattern of day and night. I can share my drawing of Earth's orbit and talk about it with a partner. 	
NJSL Standards			
<p>RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).</p> <p>RI.CI.1.2 [Ask and answer questions about] Determine main topic and retell a series of key details in [a] informational texts (e.g., who, what, where, when, why, how)</p> <p>SL.II.1.2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media.</p> <p>SL.PI.1.4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.</p> <p>W.SE.1.[8]6. With guidance and support from adults, [recall information from experiences or] gather and select information from [provided] multiple sources to answer a question or write about a topic.</p> <p>K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.</p>			
Key Instructional Practices			
Key Teacher Questions Posed During the Lesson: <ul style="list-style-type: none"> How does the author describe the earth? Think back to when we read the book On Earth. What is another word we've used for spinning? On this page, the author uses some more words to describe Earth. What are those words and what do they mean? Why don't we feel the earth spinning? How long does it take the earth to spin around once? What happens when half the earth is covered in light? Using what you know from On Earth and from this text, how are day and night created? Turn and Talk: The previous page says, "the Earth makes one complete turn." Using the text and illustrations on pages 18 and 19, explain to your partner what people on Earth experience during that one complete turn? Look again at the four pictures. What if people started at C? Would they experience the same pattern as people at A? Why or why not? 		Daily Instructional Tasks: <p>Daily Instructional Task: Look at the drawing you made after reading, On Earth. Based on your new learning from the book, What Makes Day and Night, revise your drawing. Add more illustrations, details, labels, and/or captions that help explain the pattern of day and night. Then describe your drawing to a partner. As you talk, be sure to use words from the texts, like "motion" and "rotate".</p>	
Vocabulary:		Learning Resources/Materials:	

- motion (explicit)
- speed (embedded)
- photograph (embedded)
- shadow (embedded)
- sunrise (embedded)
- sunset (embedded)
- noontime (embedded)
- midnight (embedded)
- North Pole and South Pole (implicit)

The following words are reviewed during this reading:

- spin

- Digital copy of book:  What Makes Day and Night
-  Earth Science Rubric: Lesson 3

Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of the learning intentions/objective(s)?)

- **Part 1: Introduction of the vocabulary for this reading.**

- motion (explicit)
- speed (embedded)
- photograph (embedded)
- shadow (embedded)
- sunrise (embedded)
- sunset (embedded)
- noontime (embedded)
- midnight (embedded)
- North Pole and South Pole (implicit)

The following words are reviewed during this reading:

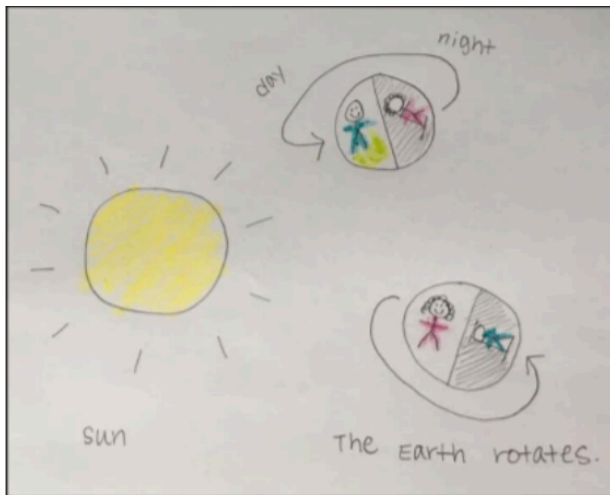
- spin

→ **Part 2:** [Teacher Guidance](#) and Reading

Read Aloud: *What Makes Day and Night* Franklyn M. Branley  *What Makes Day and Night*

→ **Part 3: Daily Instructional Task:**

Look at the drawing you made after reading, On Earth. Based on your new learning from the book, What Makes Day and Night, revise your drawing. Add more illustrations, details, labels, and/or captions that help explain the pattern of day and night. Then describe your drawing to a partner. As you talk, be sure to use words from the texts, like “motion” and “rotate”.



Oral explanation: This picture shows night and day. The girl with the pink shirt is awake during the daytime. Where she is, the Earth is facing toward the sun. That's why she has the sun. The boy with the blue shirt is in bed. He is asleep during nighttime. Where he is, the Earth is facing away from the sun. That part of the Earth doesn't get sunlight so it is dark. This picture shows what happens when the Earth rotates. Because the Earth rotates, the girl in the pink dress is on the part of the Earth that's facing away from the sun. Where she is, it's night time. And the boy in the blue shirt who was sleeping is now on the part of the Earth that is facing the sun. For him, it's daytime and he is playing outside. Both the girl and the boy experienced both day and night because the Earth is always spinning, or rotating. Day and night are a pattern because they always happen in the same order. It's day, then it's night, then it's day again, and then it's night again.

● Lesson 3 Rubric: [Earth Science Rubric: Lesson 3](#)

	3	2	1
Accuracy of Writing	The revised writing, drawing and captions accurately show how the Earth's rotation causes day and night by using facts and vocabulary from the text..	The revised writing, drawing and captions mostly show how the Earth's rotation causes day and night by using some facts and vocabulary from the text..	The revised writing, drawing and captions attempts to show how the Earth's rotation causes day and night by using few facts and vocabulary from the text..
Organization	The writing includes an introduction, facts, conclusion and unit vocabulary.	The writing includes 2 out of 3: an introduction, facts, conclusion and some unit vocabulary.	The writing includes 1 out of 3: an introduction, facts, conclusion and little to no unit vocabulary.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed

<ul style="list-style-type: none"> • Student reflection 	
Differentiation: <ul style="list-style-type: none"> • Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently. • Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension • Present questions for students to see on the board as they are discussed with the class • Chunking the text into smaller sections for deeper analysis • Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson 	Possible Misconceptions: <ul style="list-style-type: none"> • Students may not have a deep contextual understanding • Students may not understand implicit and explicit bias
Teacher Notes:	

Lesson 4			
Grade: 1st	Unit: Earth Science	Lesson Title: What Makes Night and Day	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> • I am learning that the Earth spins, or rotates, and this movement causes the pattern of day and night. 		<ul style="list-style-type: none"> • I can compare and contrast how day and night are different on the Earth and Moon by writing a paragraph that explains what causes the pattern of day and night. 	
NJSL Standards			
RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how). RI.CI.1.2 [Ask and answer questions about] Determine main topic and retell a series of key details in [a] informational texts (e.g., who, what, where, when, why, how) RI.MF.1.[7]6. With prompting and support, use [the illustrations and details in a text] text features (e.g. diagrams, tables, animations) to describe [its] key ideas. (In a science unit students may look at data that indicates the impacts humans have on land, water, air, and/or other living things in the local environment and describe the key ideas that are presented in the data.) SL.II.1.2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media. SL.PI.1.4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly. W.IW.1.2. With prompts and support, write informative/explanatory texts [in which they name] to examine a topic [supply some facts about the topic, and provide some sense of closure] and convey ideas and information. K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.			

Key Instructional Practices

Key Teacher Questions Posed During the Lesson:

- What is the boy doing? What is happening in each of these pictures?
- What is happening when you see the sunrise?
- What is happening when you see the sunset?
- This caption says, “As the earth turns, the sun seems to move across the sky”. Why is that?
- What are day and night like on the moon? Why are day and night different on the Earth and the moon?
- Why are day and night different on the earth and on the moon?
- Think-Pair-Share: The author says, “That seems just about right for all of us on the planet earth.” What is the author saying here? Do you agree? Why or why not?
- Why does the earth have day and night?
- We said earlier that day and night are a pattern. Is it a pattern we can predict? Why or why not?

Daily Instructional Tasks:

Daily Instructional Task: Teacher’s Note: This daily task builds on the drawing task students completed after reading *On Earth* and the first read of *What*

- Explain your picture from the previous task showing the causes of day and night.



Students writing should include the following:

- Introduction of topic
- Supply facts that explain what causes the pattern of day and night
- Use of vocabulary from the text
- Provides some sense of closure

Vocabulary:

- experiment (explicit)
- The following words are reviewed during this reading:
- sunrise
 - noontime
 - sunset
 - spin

Learning Resources/Materials:

- Digital copy of book:  *What Makes Day and Night*
-  Earth Science Rubric: Lesson 4

Learning Procedures: (What specific learning experiences will support all students’ progress towards mastery of the learning intentions/objective(s)?)

- **Part 1: Introduction of the vocabulary for this reading.**

- experiment (explicit)
- The following words are reviewed during this reading:
- sunrise
 - noontime
 - sunset
 - spin

→ **Part 2:** [Teacher Guidance](#) and Reading

Read Aloud: *What Makes Day and Night* Franklyn M. Branley  *What Makes Day and Night*

→ **Part 3: Daily Instructional Task:**

Teacher’s Note: This daily task builds on the drawing task students completed after reading On Earth and the first read of What Makes Day and Night. Write a paragraph that explains your picture from the previous task. Your paragraph should explain what causes the pattern of day and night.

Students writing should include the following:

- Introduction of topic
- Supply facts that explain what causes the pattern of day and night
- Use of vocabulary from the text
- Provides some sense of closure

Possible Student Responses:

- Day and night are a pattern. That’s because the Earth is round and it rotates around its axis. Part of the Earth is always facing toward the sun and the other part is facing away. People on the part that faces toward the sun have light and daytime. The people on the part of Earth that faces away from the sun have nighttime because it is dark. As Earth rotates, the part that is dark spins toward the sun. As it spins toward the sun nighttime becomes day.
- In school we are learning about what makes day and night. Day and night happen at different times. That is because the earth goes around on its axis and when it is turning. That means half the world has night and half the world has day. The part that has the day means the sun is facing them. The part that has the night means the sun is away. The earth keeps turning which means it rotates, it never stops but we do not feel it because Earth is turning (rotating) very slowly. As the earth spins in orbit, which is its path around the sun, 24 hours go by and then we have a new day.

• Lesson rubric: [Earth Science Rubric: Lesson 4](#)

	3	2	1
Accuracy of Writing	The paragraph accurately explains what causes the pattern of day and night by using facts and vocabulary from the unit.	The paragraph mostly explains what causes the pattern of day and night by using some facts and vocabulary from the unit.	The paragraph attempts to explain what causes the pattern of day and night by using few facts and vocabulary from the unit.
Organization	The writing includes an introduction, facts, conclusion and unit vocabulary.	The writing includes 2 out of 3: an introduction, facts, conclusion and some unit vocabulary.	The writing Includes 1 out of 3: an introduction, facts, conclusion and little to no unit vocabulary.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

<p>Differentiation:</p> <ul style="list-style-type: none"> • Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently. • Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension • Present questions for students to see on the board as they are discussed with the class • Chunking the text into smaller sections for deeper analysis • Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson 	<p>Possible Misconceptions:</p> <ul style="list-style-type: none"> • Students may not have a deep contextual understanding • Students may not understand implicit and explicit bias
<p>Teacher Notes:</p>	

Lesson 5			
Grade: 1st	Unit: Earth Science	Lesson Title: Sunshine Makes the Seasons	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> • I am learning that the change in seasons is created by the Earth's tilt, which causes different parts of the Earth to receive different amounts of sunlight. 		<ul style="list-style-type: none"> • I can retell details to add words and illustrations to a piece of writing that describes the relationship between sunshine and the four seasons. • I can add information to an interactive writing class chart that describes the four seasons. 	
NJSL Standards			
<p>RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).</p> <p>RI.MF.1.6. With prompting and support, use text features (e.g. diagrams, tables, animations) to describe [its] key ideas. (In a science unit students may look at data that indicates the impacts humans have on land, water, air, and/or other living things in the local environment and describe the key ideas that are presented in the data.)</p> <p>SL.AS.1.6. Produce complete sentences when appropriate to task and situation.</p> <p>W.IW.1.2. With prompts and support, write informative/explanatory texts [in which they name] to examine a topic [supply some facts about the topic, and provide some sense of closure] and convey ideas and information.</p> <p>K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.</p>			
Key Instructional Practices			
Key Teacher Questions Posed During the Lesson:		Daily Instructional Tasks:	
<ul style="list-style-type: none"> • The author says "Sunshine warms the earth." What does that mean? 			

- Why are we warmer in the summer than in winter?
- What is another word for “goes around the sun”?
- What happens in the winter? why?
- What happens in the other seasons of the year? Why?
- What does it mean that the orange (the Earth) “is lighted from pole to pole”?
- How do we need to change what we’re doing with the orange to show how the Earth really moves?
- What do you think will happen when we tilt it?
- What happens to this part of the Earth (the pin) when it tilts away from the sun (the light)?
- What might that change in sunlight cause?
- What happens to this part of the Earth (the pin) when it tilts away from the sun (the light)?
- If this orange were really the earth what would be happening?
- What did this experiment show us?

Daily Instructional Task: The author, Franklyn Branley, wants to know if you learned what he hoped you would after reading his book. He wants to know if you can explain why the seasons change. Write a paragraph for him to read that explains what you learned.

Students writing should include the following:

- Introduction of topic
- Supply facts that explain why the seasons change
- Use of vocabulary from the text
- Provides some sense of closure

Vocabulary:

- tilted (explicit)

The following words are reviewed during this reading:

- rotates
- equator
- axis
- North Pole and South Pole

Learning Resources/Materials:

- Digital copy of book: ☐ Sunshine Makes the Seasons
- 📖 Seasons Chart Lesson 5
- 📖 Earth Science Rubric: Lesson 5

Learning Procedures: (What specific learning experiences will support all students’ progress towards mastery of the learning intentions/objective(s)?)

● **Part 1: Introduction of the vocabulary for this reading.**

- tilted (explicit)

The following words are reviewed during this reading:

- rotates
- equator
- axis
- North Pole and South Pole

→ **Part 2: Reading**

[Teacher Guidance](#): Today we will create a chart about the four seasons 📖 Seasons Chart Lesson 5 . As we read, we will add information to it that explains what happens in each of the four seasons. (Students can add the information to the charts via post-its, drawings, and/or writing phrases or sentences.)

Spring	Summer
Winter	Fall

Read Aloud: *Sunshine Makes the Season* Franklyn M. Branley ☐ *Sunshine Makes the Seasons*

Today we're going to read some books about the seasons. As we read, we're going to think about what happens in each season and why. In particular, we're going to pay attention to the patterns that occur in each season year after year. We'll record this information in this chart.

→ **Part 3: Daily Instructional Task:**

The author, Franklyn Branley, wants to know if you learned what he hoped you would after reading his book. He wants to know if you can explain why the seasons change. Write a paragraph for him to read that explains what you learned.

Students writing should include the following:

- Introduction of topic
- Supply facts that explain why the seasons change
- Use of vocabulary from the text
- Provides some sense of closure

Possible Student Response:

Seasons change because where you are on Earth gets different amounts of sunshine during different seasons. In summer, you tilt toward the sun and get more sunshine. That makes it warm. In winter, you tilt away from the sun and you don't get much sunlight. That makes it colder.

- Lesson 5 rubric: ☐ Earth Science Rubric: Lesson 5

	3	2	1
Accuracy of Writing	The paragraph accurately explains why seasons change using facts and vocabulary from the text.	The paragraph mostly explains why seasons change using some facts and vocabulary from the text.	The paragraph attempts to explain why seasons change using few facts and vocabulary from the text.
Organization	The writing includes an introduction, facts, conclusion and unit vocabulary.	The writing includes 2 out of 3: an introduction, facts, conclusion and some unit vocabulary.	The writing includes 1 out of 3: an introduction, facts, conclusion and little to no unit vocabulary.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
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End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

Teacher Notes:

Lesson 6			
Grade: 1st	Unit: Earth Science	Lesson Title: On Earth	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> ● I am learning how to build understanding that the change in seasons is created by the Earth's tilt and its revolution around the Sun. ● I am learning how to identify and understand key terms from the text. 		<ul style="list-style-type: none"> ● I can identify key details from the text to describe the relationships between Earth's tilt, its revolution around the sun, and the changing seasons. ● I can identify and understand key terms from the text. 	
NJSL Standards			

RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).

SL.AS.1.6. Produce complete sentences when appropriate to task and situation.

W.IW.1.2. With prompts and support, write informative/explanatory texts [in which they name] to examine a topic [supply some facts about the topic, and provide some sense of closure] and convey ideas and information.

K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.

Key Instructional Practices

Key Teacher Questions Posed During the Lesson:

- What important ideas about how the Earth moves are explained on this page? How are they explained?
- The author states that “we’re one year older” when we orbit around the sun one time. Explain why we’re one year older after one revolution?
- The text says, “the Earth tilts on its axis.” What does tilt mean?
- Based on the text and the illustration, why do we have different seasons?
- What happens when the northern hemisphere of the Earth leans away from the sun?
- What happens in winter? Using what we know about the Earth’s tilt, why do you think this happens?
- I think the seasons are a pattern. Do you agree? Why or why not?
- Can we predict the seasons? Why or why not?

Daily Instructional Tasks:

Daily Instructional Task: Students will write an informational piece on why the seasons change.



Student writing should include the following:

- Introduce your topic.
- Supply facts that explain why the seasons change.
- Use vocabulary from the unit.
- Provide a sense of closure.

Vocabulary:

- leans (explicit)

Learning Resources/Materials:

-  On Earth
-  Earth Science Rubric: Lesson 6
- <https://clever.discoveryeducation.com/learn/videos/1c769515-c68c-4d1b-ac71-fcb7e3005e89> (Spanish)
- <https://clever.discoveryeducation.com/learn/player/c1d3c5a0-9bba-439f-a1e4-bd4ade71806a?shared=true> (English)

Learning Procedures: (What specific learning experiences will support all students’ progress towards mastery of the learning intentions/objective(s)?)

- **Part 1: Introduction of the vocabulary for this reading.**

- leans (explicit)

- **Part 2: Reading and [Guided Questions](#)**

Read Aloud: *On Earth* by G. Brian Karas  *On Earth*

Part 3: Daily Instructional Task:


Students will write an informational piece on why the seasons change.

Student writing should include the following:

- Introduce your topic.
- Supply facts that explain why the seasons change.
- Use vocabulary from the unit.
- Provide a sense of closure.

Possible Student Response:

- Seasons change as the amount of sunshine changes.
- The amount of sunshine on Earth changes because of Earth's tilt.
- As the Earth revolves around the sun, a certain point on Earth gradually moves from more sunshine to less sunshine.
- More sunshine corresponds to the summer season, and less sunshine to the winter season.
- Changing seasons are a predictable pattern. There are always four seasons, and they always occur in the same order. If we are experiencing a particular season (e.g., winter) we can predict which season will come next (e.g., spring).

- Lesson 6 rubric:  Unit 5 Earth Science Rubric: Lesson 6

	3	2	1
Accuracy of Writing	The writing accurately explains why the seasons change.	The writing attempts to explain mostly why the seasons change.	The writing attempt doesn't accurately explain why the seasons change.
Organization	The writing includes an introduction, facts, and conclusion.	The writing includes 2 out of 3: an introduction, facts, and conclusion.	The writing includes 1 out of 3: an introduction, facts, and conclusion.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

<ul style="list-style-type: none"> • Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension • Present questions for students to see on the board as they are discussed with the class • Chunking the text into smaller sections for deeper analysis • Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson 	
Teacher Notes:	

Lesson 7			
Grade: 1st	Unit: Earth Science	Lesson Title: The Reasons for Seasons	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> • I am learning how to understand important characteristics of each of the four seasons and how they differ from one another. • I am learning how to ask and answer questions about key details regarding the four seasons. 		<ul style="list-style-type: none"> • I can identify the characteristics of each of the four seasons and how they are different. • I can ask and answer questions about key details. • I can compare and contrast the characteristics of each of the four seasons. • I can describe how the patterns in seasons impact living things. 	
NJSL Standards			
<p>RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).</p> <p>RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.</p> <p>SL.AS.1.6. Produce complete sentences when appropriate to task and situation.</p> <p>W.IW.1.2. With prompts and support, write informative/explanatory texts [in which they name] to examine a topic [supply some facts about the topic, and provide some sense of closure] and convey ideas and information.</p> <p>K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.</p>			
Key Instructional Practices			
Key Teacher Questions Posed During the Lesson:		Daily Instructional Tasks:	
<ul style="list-style-type: none"> • When does spring usually begin? 			

- What happens in this season?
- What is migration? How does it impact certain animals?
- How else does spring impact living things?
- When does summer usually begin?
- What happens in this season?
- How does summer impact living things?
- When does autumn usually begin?
- What happens in this season?
- What is the impact of autumn on different living things?
- When does winter usually begin?
- What happens in this season?
- What other information can we add to the chart based on our own experiences of the seasons?
- How are the four seasons different from one another? Which seasons are similar and why?
- What patterns can we observe in the seasons?

Daily Instructional Task: Students will write to tell what patterns will be observed in the four seasons.

- Your family has a new neighbor that has moved here from the North Pole. At the North Pole, their seasons are a little different because of their location on Earth. They want to know what patterns they can expect to see in the four seasons. Write to tell them what patterns they will observe in each of the four seasons.


Student writing should include the following:

- Introduce your topic.
- Supply facts about what happens in each season and how the four seasons are different from one another.
- Use vocabulary from this unit,
- Provide a sense of closure.

Vocabulary:

- equinox (implicit)
- solstice (explicit)
- midday (embedded)
- ancient (embedded)
- climate (explicit)
- hibernation (embedded)
- temperature (implicit)

Learning Resources/Materials:

- **Text:** [The Reasons for Seasons](#)
-  [Earth Science Rubric: Lesson 7](#)

Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of theThe learning intentions/objective(s)?)

● **Part 1: Introduction of the vocabulary for this reading.**

- equinox (implicit)
- solstice (explicit)
- climate (explicit)
- temperature (implicit)

● **Part 2: Reading and [Guided Questions](#)**

Read Aloud: [The Reasons for Seasons by Gail Gibbons](#)

→ **Part 3: Daily Instructional Task:**

Write about the patterns we see in the 4 seasons-Winter, Spring, Summer, and Fall..

- Include the patterns we see in the four seasons.

Remind students:

- Introduce your topic.
- Supply facts about what happens in each season and how the four seasons are different from one another.
- Use vocabulary from this unit,
- Provide a sense of closure.

Possible Student Response:

There are four seasons. Each season is different but there are patterns of daylight in each of them. In spring there starts to be more daylight and it is warmer. Summer is the hottest season with the most daylight. In summer the Earth is tilted the closest to the sun. Plants grow and animals have families. In fall there starts to be less daylight and it gets cooler. Some birds migrate to warmer places. Winter is the coldest month with the least sunlight. In winter the Earth is tilted the farthest away from the sun. It gets dark very early in winter. Some people like to stay inside.

- Lesson rubric: [📖 Earth Science Rubric: Lesson 7](#)

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:


- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

Teacher Notes:

Lesson 8			
Grade: 1st	Unit: Earth Science	Lesson Title: The Reasons for Seasons	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> I am learning how to compare two texts on the same topic. I am learning how to summarize key ideas related to the Earth's changing seasons. I am learning how to analyze how texts' words and illustrations are used to explain information related to the Earth's changing seasons. 		<ul style="list-style-type: none"> I can compare two texts on the same topic. I can summarize key ideas related to the Earth's changing seasons. I can analyze how texts' words and illustrations are used to explain information related to the Earth's changing seasons. 	
NJSL Standards			
<p>RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).</p> <p>RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.</p> <p>SL.AS.1.6. Produce complete sentences when appropriate to task and situation.</p> <p>W.AW.1.1. With prompts and support, write opinion pieces on a topic or texts.</p> <p>K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.</p>			
Key Instructional Practices			
Key Teacher Questions Posed During the Lesson: <ul style="list-style-type: none"> How did the author and/or illustrator explain this information? 		Daily Instructional Tasks: <p>Daily Instructional Task: Students will write an opinion piece that explains which author they think most clearly explains the causes of the changing season.</p> <ul style="list-style-type: none"> Your teacher needs your help deciding which book to display on her shelf. After reading both texts, <i>The Reasons for the Seasons</i> by Gail Gibbons and <i>Sunshine Makes the Seasons</i> by Frankly Branley, write an opinion piece that explains which author you think most clearly explains the causes of the changing seasons. In your writing, describe how the text uses words and pictures to explain certain ideas. <p>Student writing should include the following:</p> <ul style="list-style-type: none"> Your opinion One or more reasons for your opinion One or more comparisons between the two texts Vocabulary words from the texts A sense of closure 	

<p>Vocabulary:</p> <ul style="list-style-type: none"> ● equinox (implicit) ● solstice (explicit) ● midday (embedded) ● ancient (embedded) ● climate (explicit) ● hibernation (embedded) ● temperature (implicit) 	<p>Learning Resources/Materials:</p> <ul style="list-style-type: none"> ● Text: The Reasons For Seasons ●  Earth Science Rubric: Lesson 8 ● https://app.discoveryeducation.com/learn/videos/10c90dab-46f6-45e7-8434-aa5572c6b33e
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Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of the learning intentions/objective(s)?)

● **Part 1: Introduction of the vocabulary for this reading.**

- equinox (implicit)
- solstice (explicit)
- midday (embedded)
- ancient (embedded)
- climate (explicit)
- hibernation (embedded)
- temperature (implicit)

● **Part 2: Reading and [Guided Questions](#)**

Read Aloud: [The Reasons for Seasons by Gail Gibbons](#) & *Sunshine Makes the Seasons*  *Sunshine Makes the Seasons*

→ **Teacher Note:**


Read pages 1-5 only to allow time for the second read of *Sunshine Makes the Seasons* and Daily Task 8. The second read of *The Reasons for Seasons*, the second read of *Sunshine Makes the Seasons*, and Daily Task 8 are designed to be completed all on the same day.)

→ **Teacher Guidance:**

“Today we’re going to reread two texts that explain why the seasons change – *The Reasons for Seasons* and *Sunshine Makes the Seasons*. Both books seek to explain the same concept. We’re going to think about which text, in our opinion, does a better job of explaining the concept.

→ **Part 3: Daily Instructional Task:**

Compare and Contrast-After reading both texts, compare and contrast “The Reasons for the Seasons” and “Sunshine Makes the Seasons”. What did you learn that is the same and what is different? Explain which book better explains the cause of the seasons.

- Lesson Rubric:  Earth Science Rubric: Lesson 8

Answering Text Dependent Questions, Independent Writing

	3	2	1
Accuracy of Writing	The writing accurately explains which author they think most clearly explains the causes of the changing season.	The writing attempts and explains mostly which author they think most clearly explains the causes of the changing season.	The writing attempt does not accurately explain which author they think most clearly explains the causes of the changing season.
Organization	The writing includes an opinion, reasons, comparison of the two texts and conclusion.	The writing includes 3 out of 4: opinion, reasons, comparison of the two texts and conclusion.	The writing includes 1 out of 4: opinion, reasons, comparison of the two texts and conclusion.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:




- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

Teacher Notes:

Grade: 1st	Unit: Earth Science	Lesson Title: On Earth	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> I am learning how to understand that patterns in day and night and the seasons are predictable. I am learning how to summarize information from the text about the Earth's rotation and revolution. I am learning how to use key details from the text to draw conclusions about predictable patterns related to the Earth's movement. 		<ul style="list-style-type: none"> I can explain how patterns in day and night and the seasons are predictable. I can summarize information from the text about the Earth's rotation and revolution. I can use key details from the text to draw conclusions about predictable patterns related to the Earth's movement. 	
NJSLS Standards			
<p>RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).</p> <p>RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.</p> <p>SL.AS.1.6. Produce complete sentences when appropriate to task and situation.</p> <p>W.SE.1.6. With guidance and support from adults, gather and select information from multiple sources to answer a question or write about a topic.</p> <p>K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.</p>			
Key Instructional Practices			
Key Teacher Questions Posed During the Lesson: <ul style="list-style-type: none"> What pattern does this page show? What causes this pattern? Why is it a pattern that we can predict? 		Daily Instructional Tasks: <p>Daily Instructional Task: Students will create a brochure explaining the observable patterns in the day and night sky and the seasons they impact.</p> <ul style="list-style-type: none"> Some leaders in your community are planning a summer science camp for kids. One of the topics that kids will learn about at camp is Earth and space science. The camp leaders want you to create a brochure that they can share with kids at camp that explains (1) observable patterns in the day and night sky and (2) the seasons that impact Earth. Use illustrations and descriptions to explain these observable patterns. <p>Student writing should include the following:</p> <ul style="list-style-type: none"> a front cover that illustrates and names the topic of the brochure a section that illustrates and describes observable patterns from the day and night sky and explains why we observe those patterns a section that illustrates and describes the pattern in Earth's seasons and explains why changes in season occur. 	

	<p>Must include:</p> <ul style="list-style-type: none"> ● details from the texts we have read ● vocabulary words from the word display in our unit
<p>Vocabulary:</p> <ul style="list-style-type: none"> ● rotate/rotation ● tilt ● orbit ● revolve/revolution ● axis ● equator ● Hemisphere 	<p>Learning Resources/Materials:</p> <ul style="list-style-type: none"> ● Digital Book:  On Earth ●  Lesson 9 Sample Student response ●  Earth Science Rubric: Lesson 9
<p>Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of the learning intentions/objective(s)?)</p> <p>→ Part 1: Introduction of the vocabulary for this reading.</p> <ul style="list-style-type: none"> ● rotate/rotation ● tilt ● orbit ● revolve/revolution ● axis ● equator ● Hemisphere <p>→ Part 2: Reading</p> <p>Read Aloud: <i>On Earth by G. Brian Karas</i></p> <p>→ Teacher Note:</p> <p>The fourth read of <i>On Earth</i> marks the conclusion of the part of the unit on patterns in day and night and the seasons. Teachers may wish to review these key concepts by conducting repeated reads of other texts. For example, a teacher may want to review patterns in day and night by having students reread the shared reading text <i>What Makes Day and Night</i>.</p> <p>→ Teacher Guidance:</p>	

“We’ve spent time learning about Earth’s movements and how they affect what we see in the day and night sky and the changing seasons. We’re going to read the text *On Earth* one final time. We know that this text tells us about the Earth’s movements and how those movements affect what we see in the day and night sky and the changing seasons. As we read today, we’re going to be thinking about how Earth’s movements create patterns that we can observe. We’re going to think about what we are able to predict and observe given what we know about the Earth’s movements.”

→ **Part 3: Daily Instructional Task:**

Students will create a brochure explaining the observable patterns in the day and night sky and the seasons they impact.

- Some leaders in your community are planning a summer science camp for kids. One of the topics that kids will learn about at camp is Earth and space science. The camp leaders want you to create a brochure that they can share with kids at camp that explains (1) observable patterns in the day and night sky and (2) the seasons that impact Earth. Use illustrations and descriptions to explain these observable patterns.

Student writing should include the following:

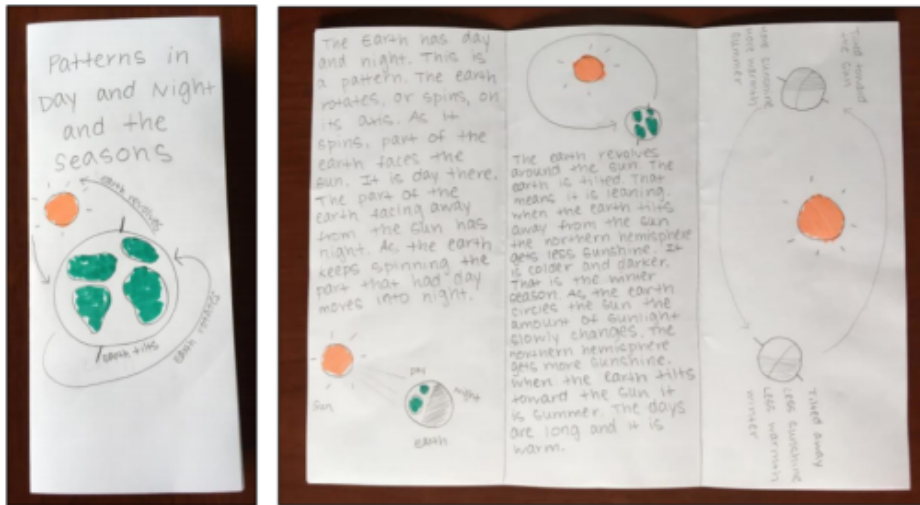
☰ Headings for the Brochure-Day/Night & Seasons they impact

- a front cover that illustrates and names the topic of the brochure
- a section that illustrates and describes observable patterns from the day and night sky and explains why we observe those patterns
- a section that illustrates and describes the pattern in Earth’s seasons and explains why changes in season occur.

Must include:

- details from the texts we have read
- vocabulary words from the word display in our unit

Possible Student Response: ☰ Lesson 9 Sample Student response



● Lesson Rubric: [Earth Science Rubric: Lesson 9](#)

Answering Text Dependent Questions, Independent Writing

	3	2	1
Accuracy of Writing	The writing accurately explains the observable patterns in the day and night sky and the seasons they impact.	The writing attempts and explains mostly the observable patterns in the day and night sky and the seasons they impact.	The writing attempt does not accurately explain the observable patterns in the day and night sky and the seasons they impact.
Organization	The writing includes a front cover that illustrates and names the topic, a section that illustrates and describes observable patterns, explains why we observe those patterns, illustrates and describes the pattern in Earth's seasons.	The writing includes 3 out of 4: a front cover that illustrates and names the topic, a section that illustrates and describes observable patterns, explains why we observe those patterns, illustrates and describes the pattern in Earth's seasons.	The writing includes 1 out of 4: a front cover that illustrates and names the topic, a section that illustrates and describes observable patterns, explains why we observe those patterns, illustrates and describes the pattern in Earth's seasons.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed

- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

Teacher Notes:

Lesson 10			
Grade: 1st	Unit: Earth Science	Lesson Title: Starry Messenger	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> • I am learning how to use information from the text to make a timeline with labels that describe how our understanding of space has changed over time. • I am learning how to use graphs and text features to understand key ideas and details in the text. 		<ul style="list-style-type: none"> • I can use information from the text to make a timeline with labels that describe how our understanding of space has changed over time. • I can use graphs and text features to understand key ideas and details in the text. 	
NJSL Standards			
RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how). RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. SL.AS.1.6. Produce complete sentences when appropriate to task and situation. W.IW.1.2. With prompts and support, write informative/explanatory texts to examine a topic and convey ideas and information. (Students may compose text that explains how plants and animals can change their environment.).			
Key Instructional Practices			

<p>Key Teacher Questions Posed During the Lesson:</p> <ul style="list-style-type: none"> • The author tells us here that one man thought about the earth and sun differently? What did this man think? • What does the text tell us about how people think about Galileo now? • What do you think could have caused the church to say that Galileo was right? 	<p>Daily Instructional Tasks:</p> <p>Daily Instructional Task: Students will write an informational piece that explains how people’s beliefs about the Earth and sun have changed over time for the local planetarium to display at their new exhibit.</p> <p>Student writing should include the following:</p> <ul style="list-style-type: none"> • introduce your topic • supply some facts about the topic • use specific vocabulary and names from the text • provide some sense of closure.
<p>Vocabulary:</p> <ul style="list-style-type: none"> • universe (implicit) • tradition (implicit) • observe/observations (explicit) • publish (embedded) • inspired (embedded) 	<p>Learning Resources/Materials:</p> <ul style="list-style-type: none"> • Digital copy of book: 📖 <i>Starry Messenger</i> • 📅 <i>Starry Messenger Timeline</i> • 📄 <i>Earth Science Rubric: Lesson 10</i>
<p>Learning Procedures: (What specific learning experiences will support all students’ progress towards mastery of the learning intentions/objective(s)?)</p> <p>→ Part 1: Introduction of the vocabulary for this reading.</p> <ul style="list-style-type: none"> • universe (implicit) • tradition (implicit) • observe/observations (explicit) • publish (embedded) • inspired (embedded) <p>→ Part 2: Reading</p> <p>Read Aloud: <i>Starry Messenger by Peter Sis</i> 📖 <i>Starry Messenger</i></p> <p>→ Teacher Guidance:</p> <p>“We’re going to make a timeline 📅 <i>Starry Messenger Timeline</i> . A timeline is a way of showing the order of important events in history. For this book, we’re going to make a timeline that helps explain how people’s ideas about Earth and space have changed over time.”</p> <p>Part 3: Daily Instructional Task:</p> <p>→ Introduce: In the story “<i>Starry Messenger</i>” - we read about the famous explorer Galileo Galilei, better known as just Galileo, who grew up curious about the sun, moon, and stars around him</p> <p>→ Task: Explain and write about what Galileo learned and did to make people understand the sun, moon, and stars around us.</p>	

Remind students to: :

- introduce your topic
- supply some facts about the topic
- use specific vocabulary and names from the text
- provide some sense of closure.

Sample of a student response- Galileo was born curious about the sun, moon, and stars. He wanted to know about everything around him that was in the skies. He was one of the first people to make their own telescope to look up in the skies and see things better. When he figured things out he shared what he learned with the people around him and he became very famous. He realized that the earth and the other planets move around the sun instead of just the earth being the center of the universe.

→ **Collaborative Task**

During reading, the class will collaboratively construct a timeline. Teachers and students can make the timeline together on a chalkboard or whiteboard. Teachers or students can write events in chalk or marker as they go. Or, the teacher can pre-write events on sticky notes and then have students place the sticky notes in order.

- Lesson 10 rubric: [Earth Science Rubric: Lesson 10](#)

Answering Text Dependent Questions, Independent Writing

	3	2	1
Accuracy of Writing	The writing accurately explains how people's beliefs about the Earth and sun have changed over time for the local planetarium to display at their new exhibit.	The writing attempts and explains mostly how people's beliefs about the Earth and sun have changed over time for the local planetarium to display at their new exhibit.	The writing attempt does not accurately explain how people's beliefs about the Earth and sun have changed over time for the local planetarium to display at their new exhibit.
Organization	The writing includes an introduction, facts, and conclusion.	The writing includes 2 out of 3: an introduction, facts, and conclusion.	The writing includes 1 out of 3: an introduction, facts, and conclusion.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias
- Students may need to be reminded that Galileo's ideas became a little scary to others, Galileo got in trouble and couldn't leave his home. However, he never

<ul style="list-style-type: none"> • Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension • Present questions for students to see on the board as they are discussed with the class • Chunking the text into smaller sections for deeper analysis • Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson 	<p>stopped dreaming and wondering about what was over his head in the skies. Years later everyone realized that the thoughts Galileo had about the universe was correct.</p> <ul style="list-style-type: none"> •
<p>Teacher Notes:</p>	

Lesson 11			
Grade: 1st	Unit: Earth Science	Lesson Title: Starry Messenger	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> • I am learning that scientists and scientific tools have helped us learn more accurate information about space. • I am learning how text features help me to understand key ideas and details. 		<ul style="list-style-type: none"> • I can explain how Galileo's observations contributed to people's understanding of science. • I can explain why the telescope helped scientists, like Galileo, make new observations. • I can use text features and graphics to understand key ideas and details in the text. 	
NJSL Standards			
<p>RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).</p> <p>RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.</p> <p>SL.AS.1.6. Produce complete sentences when appropriate to task and situation.</p> <p>RL.MF.1.6. With prompting and support, use illustrations and details in a story to describe its characters, setting, or events.</p> <p>W.IW.1.2. With prompts and support, write informative/explanatory texts to examine a topic and convey ideas and information. (Students may compose text that explains how plants and animals can change their environment.).</p>			
Key Instructional Practices			

Key Teacher Questions Posed During the Lesson:

- Think about the two men who we read about on these pages. Tell your partner who they are and how they were different.
- What does the author mean when he says that the little boy “was born with stars in his eyes”? How does the illustration help us understand this phrase?
- When the author talks about Galileo here, he says that “stars were always on his mind.” What does that mean?
- What have we learned about Galileo from this page? How did we learn this information?
- The author says that Galileo was amazed by what he could see with his telescope. What were some of these observations?
- How did Galileo help people begin to change what they know about the Earth and universe?
- In what ways did Galileo’s telescope and observations help change what people understood about the Earth and universe?

Daily Instructional Tasks:

Daily Instructional Task: Students will write an informational piece about Galileo and some of the observations he made and why the telescope was important to Galileo’s life.

Students writing should include the following:

- Introduction of topic
- 3 facts about Galileo, his observations and the importance of the telescope
- Some sense of closure



Vocabulary:

- telescope (explicit)

The following words are reviewed during this reading:

- revolve
- observe/observations
- experiments

Learning Resources/Materials:

- Digital copy of book:  *Starry Messenger*
-  Earth Science Rubric: Lesson 11

Learning Procedures: (What specific learning experiences will support all students’ progress towards mastery of the learning intentions/objective(s)?)


→ **Part 1: Introduction of the vocabulary for this reading.**

- telescope (explicit)

The following words are reviewed during this reading:

- revolve
- observe/observations
- experiments

→ **Part 2: Reading and [Teacher Questions](#)**

Read Aloud: *Starry Messenger* by Peter Sis  *Starry Messenger*

→ **Part 3: Daily Instructional Task:**

Students will write an informational piece about Galileo and some of the observations he made and why the telescope was important to Galileo’s life.

Students writing should include the following:

- Introduction of topic
- 3 facts about Galileo, his observations and the importance of the telescope
- Some sense of closure

Possible Student Response: Galileo was an important person who studied space. He used a telescope. The telescope let him see things that were very far away. Galileo used the telescope to look at the moon. He observed that the moon is rough. He also used a telescope to observe spots on the sun. People know a lot about space today because of Galileo's observations.

- Lesson 11 rubric: [Unit 5 Earth Science Rubric: Lesson 11](#)

	3	2	1
Accuracy of Writing	The writing accurately explains who Galileo was and some of his observations.	The writing attempts and explains mostly who Galileo was and his observations.	The writing attempts, however does not accurately explain who Galileo was and his observations.
Organization	The writing includes an introduction, facts, and conclusion.	The writing includes 2 out of 3: an introduction, facts, and conclusion.	The writing includes 1 out of 3: an introduction, facts, and conclusion.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

Teacher Notes:

Lesson 12			
Grade: 1st	Unit: Earth Science	Lesson Title: Looking Through a Telescope	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none">I am learning that scientists use telescopes to observe characteristics of objects in space		<ul style="list-style-type: none">I can recall key details from the text to describe the purpose of a telescope.I can use information from text features to draw conclusions about how telescopes are used.	
NJSL Standards			
RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).			
RL.CR.1.1. Ask and answer questions about key details in a literary text (e.g., who, what, where, when, why, how).			
RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.			
SL.AS.1.6. Produce complete sentences when appropriate to task and situation.			
RI.MF.1.6. With prompting and support, use text features (e.g. diagrams, tables, animations) to describe [its] key ideas. (In a science unit students may look at data that indicates the impacts humans have on land, water, air, and/or other living things in the local environment and describe the key ideas that are presented in the data.)			
RL.MF.1.6. With prompting and support, use illustrations and details in a story to describe its characters, setting, or events.			
W.SE.1.6. With guidance and support from adults, gather and select information from multiple sources to answer a question or write about a topic.			
Key Instructional Practices			
Key Teacher Questions Posed During the Lesson:		Daily Instructional Tasks:	
<ul style="list-style-type: none">Why are we not able to “jump over the moon”?What is a telescope?How do you use a telescope? What features in this text give us information about how to use a telescope?		Daily Instructional Task: Pretend that you are a junior scientist. Explain to a fellow junior scientist/partner what a telescope is used for and why it’s a helpful scientific tool.	

- What are some characteristics of the moon that you can observe with a telescope?
- What planet is this? How do we know?
- What objects can you observe in the night sky with a telescope?
- Why are telescopes important for observing these objects?
- How have telescopes changed since the time of Galileo?

Students writing should include the following:

- Introduction of topic
- Describe some of the ways you use your telescope
- Include some vocabulary from the text
- Provide some sense of closure

Vocabulary:

- scientists (explicit)
- planet (embedded)
- crater (embedded)

The following words are reviewed during this reading:

- Telescope

Learning Resources/Materials:

- Digital Copy of book:  Looking Through a Telescope
-  Earth Science Rubric: Lesson 12

Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of the learning intentions/objective(s)?)

→ **Part 1: Introduction of the vocabulary for this reading.**

- scientists (explicit)
- planet (embedded)
- crater (embedded)

The following words are reviewed during this reading:

- Telescope

→ **Part 2: Reading and [Teacher Questions](#)**

Read Aloud: Project, *Looking Through a Telescope* by Linda Bullock on the SMART board,  *Looking Through a Telescope*

→ **Part 3: Daily Instructional Task:**

Explain why a telescope is an important tool to use when you are making observations and looking at things that are far away.

Possible Student Response: People use telescopes to make observations and to see things far away. I use my telescope to look at the moon. The telescope shows me craters and Maria on the Moon. I also use my telescope to look at planets. Through the telescope the planets look close. Without the telescope the planets would only look like dots of light. One day I hope to use the Hubble Telescope so I can learn more about how stars form.

- Lesson rubric:

Rubric

	3	2	1
Accuracy of Writing	The writing accurately explains what a telescope is and ways you can use one.	The writing attempts and explains mostly what a telescope is and ways you can use one.	The writing attempts, however, does not accurately explain what a telescope is and ways you can use one.
Organization	The writing includes an introduction, facts/vocabulary, and conclusion.	The writing includes 2 out of 3: an introduction, facts/vocabulary and conclusion.	The writing includes 1 out of 3: an introduction, facts/vocabulary, and conclusion.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

☰ Earth Science Rubric: Lesson 12

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

Teacher Notes:

Lesson 13

Grade: 1st

Unit: Earth Science

Lesson Title: The Big Dipper

Instructional Days: 1-2

Learning Intentions

Success Criteria

- I am learning that the Big Dipper is an important group of stars that we can see in the night sky.

- I can identify key ideas and details about the Big Dipper.
- I can explain how and why people look at the stars.

NJSL Standards

- RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).
- RL.CR.1.1. Ask and answer questions about key details in a literary text e.g., who, what, where, when, why, how).
- RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
- SL.AS.1.6. Produce complete sentences when appropriate to task and situation.
- RI.MF.1.6. With prompting and support, use text features (e.g. diagrams, tables, animations) to describe [its] key ideas. (In a science unit students my look at data that indicates the impacts humans have on land, water, air, and/or other living things in the local environment and describe the key ideas that are presented in the data.)
- RL.MF.1.6. With prompting and support, use illustrations and details in a story to describe its characters, setting, or events.
- W.SE.1.6. With guidance and support from adults, gather and select information from multiple sources to answer a question or write about a topic.

Key Instructional Practices

Key Teacher Questions Posed During the Lesson:

- On these pages, the author uses the name Big Dipper. But, the author doesn't tell us exactly what the Big Dipper is. Using the words and illustrations from the text and what you already know about stars, what do you think of the Big Dipper?
- What are some facts about the north star?
- The author says that the North Star is "a very important star". Why do you think that is?
- Why did people long ago call the Big Dipper Ursa Major?
- Why have people in the past looked at the stars?

Daily Instructional Tasks:

Daily Instructional Task: Write a response to the following questions: What is the Big Dipper?



Students writing should include the following:

- Introduction of topic
- At least three facts about the topic
- Include some vocabulary from the text
- Provide some sense of closure

Vocabulary:

- dipper (explicit- use page 12 of the text for support)
- compass (implicit)
- North (in the context of North Star; explicit)
- sailors (implicit)
- imagine (embedded)

Learning Resources/Materials:

- Digital copy of book:  The Big Dipper
-  Earth Science Rubric: Lesson 13

Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of the learning intentions/objective(s)?)

→ **Part 1: Introduction of the vocabulary for this reading.**

- dipper (explicit- use page 12 of the text for support)
- compass (implicit)
- North (in the context of North Star; explicit)
- sailors (implicit)
- imagine (embedded)

→ **Part 2: Reading and [Teacher Questions](#)**

Read Aloud: *The Big Dipper* by Franklyn M. Branley  *The Big Dipper*

→ **Teacher Guidance :** Given the complexity of portions of this text, adjustments to shared reading methods might be made for certain sections of this text that present new or challenging information to students (e.g., choral reading with the teacher's voice as the lead, echo reading, etc.). As needed, sections for these adjustments might include: pages 12-14, 18-22, 24, and 29.


→ **Part 3: Daily Instructional Task:**

Write a response to the following questions: What is the Big Dipper?

Students writing should include the following:

- Introduction of topic
- At least three facts about the topic
- Include some vocabulary from the text
- Provide some sense of closure

Possible Student Response: The Big Dipper is a group of stars. You can see the Big Dipper in the night sky in the summer and the winter. There are seven stars in the Big Dipper. Some people long ago thought the Big Dipper looked like a bear and they called it Ursa Major. I will look at the stars tonight and try to find the Big Dipper!

- Lesson rubric:  *Earth Science Rubric: Lesson 13*

Rubric

	3	2	1
Accuracy of Writing	The writing accurately explains what the Big Dipper is.	The writing attempts and explains mostly what the Big Dipper is.	The writing attempts, <i>however</i> , does not accurately explain what the Big Dipper is.
Organization	The writing includes an introduction, 3 facts/vocabulary, and conclusion.	The writing includes 2 out of 3: an introduction, facts/vocabulary and conclusion.	The writing includes 1 out of 3: an introduction, facts/vocabulary, and conclusion.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

Possible Misconceptions:

- Students may not have a deep contextual understanding

<ul style="list-style-type: none"> • Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently. • Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension • Present questions for students to see on the board as they are discussed with the class • Chunking the text into smaller sections for deeper analysis • Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson 	<ul style="list-style-type: none"> • Students may not understand implicit and explicit bias
Teacher Notes:	

Lesson 14			
Grade: 1st	Unit: Earth Science	Lesson Title: The Big Dipper	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> • I am learning that the position of the Big Dipper appears to change during different seasons. 		<ul style="list-style-type: none"> • I can use the pictures to explain how the position of the Big Dipper changes through the seasons. • I can draw an illustration of the Big Dipper and its appearance throughout the seasons of Summer, Fall and Winter. • I can explain the observable pattern the Big Dipper has and its similarities to other patterns we have discussed. 	
NJSL Standards			
RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how). RL.CR.1.1. Ask and answer questions about key details in a literary ext e.g., who, what, where, when, why, how). RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. SL.AS.1.6. Produce complete sentences when appropriate to task and situation. RI.MF.1.6. With prompting and support, use text features (e.g. diagrams, tables, animations) to describe [its] key ideas. (In a science unit students my look at data that indicates the impacts humans have on land, water, air, and/or other living things in the local environment and describe the key ideas that are presented in the data.) RL.MF.1.6. With prompting and support, use illustrations and details in a story to describe its characters, setting, or events. W.SE.1.6. With guidance and support from adults, gather and select information from multiple sources to answer a question or write about a topic.			
Key Instructional Practices			
Key Teacher Questions Posed During the Lesson:		Daily Instructional Tasks:	

- What does this illustration show?
- Would the stars shown here always look this way? How do we know?
- How did we learn this information?
- What season do you think it is in this illustration? Why?
- What about in this illustration, what season do you think it is and why?

Daily Instructional Task:

Task #1: Students will draw and label what the Big Dipper looks like during the Summer, Winter and Fall. Students will then write about each picture and explain what is happening to the Big Dipper during that season.

Task #2: Students will write a response to the following prompt: Does the Big Dipper have an observable pattern? If so, how is this pattern similar to other patterns we've talked about in this unit?




Students writing should include the following:

- Introduction of topic
- At least two facts about the topic
- Include some vocabulary from the text
- Provide some sense of closure

Vocabulary:

- dipper
- compass
- North
- Imagine

Learning Resources/Materials:

- Digital copy of book:  The Big Dipper
-  What patterns of the Big Dipper will you observe in each of the four seas...
-  Earth Science Rubric: Lesson 14

Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of the learning intentions/objective(s)?)


→ **Part 1: Introduction of the vocabulary for this reading.**

- dipper
- compass
- North
- Imagine

→ **Part 2: Reading and [Teacher Questions](#)**

Read Aloud: *The Big Dipper* by Franklyn M. Branley  *The Big Dipper*

→ **Part 3: Daily Instructional Task:**

Task #1: Students will draw and label what the Big Dipper looks like during the Summer, Winter, Spring and Fall. Students will then write about each picture and explain what is happening to the Big Dipper during that season.  What patterns of the Big Dipper will you observe in each of the four seasons?



Possible Student Response to Task #1 (answers may vary): “In summer the handle and bowl of the Big Dipper are pointing down. In winter they are pointing up. In fall the Big Dipper is very low in the sky. You may not even be able to see it because it’s so low.”

Task #2: Students will write a response to the following prompt: Does the Big Dipper have an observable pattern? If so, how is this pattern similar to other patterns we’ve talked about in this unit?

Students writing should include the following:

- Introduction of topic
- At least two facts about the topic
- Include some vocabulary from the text
- Provide some sense of closure

Possible Student Response to Task #2: The Big Dipper’s position in the sky makes a pattern. We can predict how the Big Dipper will look if we know what season it is. This pattern is like sunshine and the seasons. If we know what season it is, we can predict how much sunshine there will be. We can observe many patterns in the sky.

- Lesson rubric: [Earth Science Rubric: Lesson 14](#)

Rubric

	3	2	1
Drawing/Illustration	Student accurately shows the Big Dipper during the seasons of Summer, Winter and Fall.	Student shows the Big Dipper during 2 out of the 3 seasons of Summer, Winter and Fall.	Student shows the Big Dipper during 1 out of the 3 seasons of Summer, Winter and Fall.
Accuracy of Writing	The writing accurately explains what the Big Dipper is.	The writing attempts and explains mostly what the Big Dipper is.	The writing attempts, however does not accurately explain what the Big Dipper is.
Organization	The writing includes an introduction, 2 facts/vocabulary, and conclusion.	The writing includes 2 out of 3: an introduction, facts/vocabulary and conclusion.	The writing includes 1 out of 3: an introduction, facts/vocabulary, and conclusion.

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Teacher Notes:

Lesson 15

Grade: 1st	Unit: Earth Science	Lesson Title: Coyote Places the Stars	Instructional Days: 1-2
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Learning Intentions

Success Criteria

- I am learning that groups of stars appear to make patterns of shapes in the night sky.

- I can retell the story including key details.
- I can explain the similarities and differences between texts that tell stories and those that give information.

NJSLS Standards

RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).
 RL.CR.1.1. Ask and answer questions about key details in a literary ex. e.g., who, what, where, when, why, how).
 RI.TS.1.4. With prompting and support, explain major differences between books that tell stories and books that give information, identifying various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text while drawing on a wide reading of a range of text types.
 RL.CT.1.8. Identify similarities in and differences between two literary texts on the same topic (e.g., characters, experiences, illustrations, descriptions, or procedures).
 SL.PI.1.4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
 W.RW.1.7. Engage in discussion, drawing, and writing in brief but regular writing tasks.

Key Instructional Practices

Key Teacher Questions Posed During the Lesson:

- The author said, “coyotes lay awake many nights gazing at the starry heavens.” What does that mean?
- What does it tell us about Coyote, that he lays awake at night gazing at the starry heavens?
- The text says, “the stars were arranged in the shape of a coyote.” What does “arranged” mean?
- What was Coyote creating by arranging the stars?
- Why did the coyote howl at the moon?
- Why did the animals whoof, which, screech and squawk?
- Why did the Coyote create pictures in the sky?
- The last page of the text says that you could gaze at the star pictures to this day. Why are you able to see star pictures or patterns in the night sky?

Daily Instructional Tasks:

Daily Instructional Task:

Interactive Writing

Coyote Places the Stars is a legend. Some of the information in the text is not true, but some of it is. Using information from this text and other texts we have read in this unit, explain which ideas in this story are true and which are not. Have students Turn and Talk with a partner their thoughts on which parts of the text were true and which were fictional. Students will identify what they know to be true from the text. Students will then identify the parts of the text that cannot be proven true and/or are fictional.

Vocabulary:

starry heavens
arranged
star pictures
gaze
clever
coyote

Learning Resources/Materials:

- Digital copy of book:  Coyote Places the Stars

Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of the learning intentions/objective(s)?)

→ **Part 1: Introduction of the vocabulary for this reading.**

- starry heavens (embedded)
- arranged (embedded)
- star pictures (embedded)
- gaze (explicit)

→ **Part 2: [Lesson Questions and Possible Student Responses](#)**

Read Aloud: *Coyote Places the Stars* by Harriet Peck Taylor  *Coyote Places the Stars*

Legends are old stories that were widely believed, but cannot be proven true. There are many Native American legends about objects in the sky. Since this text is a legend, what might we need to think about as we read? Turn and Talk to your partner about what we might need to think about as we read today's story.

→ **Part 3: Daily Instructional Task:**

Interactive Writing

Coyote Places the Stars is a legend. Some of the information in the text is not true, but some of it is. Using information from this text and other texts we have read in this unit, explain which ideas in this story are true and which are not. Have students Turn and Talk with a partner their thoughts on which parts of the text were true and which were fictional. Students will identify what they know to be true from the text. Students will then identify the parts of the text that cannot be proven true and/or are fictional.

Possible Student Response: Coyote's plan to move the stars wouldn't be successful in reality. We learned in Looking Through a Telescope that the moon is far away, so Coyote wouldn't actually be able to climb a ladder made of arrows to reach the moon. The Big Dipper told us that the stars are also far away, so Coyote wouldn't be able to shoot them with arrows. But people do look at the stars and see shapes. Ursa Major is a group of stars that looks like a bear, just like Coyote made a picture of a bear with the stars for his friend Bear.

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

Teacher Notes: This interactive writing is the first of its kind in the unit. To help students in writing this instructional task, it might be helpful to create a chart with the students so that when they are recalling information independently they have a resource to create their responses from. [Example](#)

Lesson 16			
Grade: 1st	Unit: Earth Science	Lesson Title: The Moon Book	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> • I am learning that the moon is an important body in space that moves and reflects light from the sun. • I am learning about the moon's orbit around Earth. 		<ul style="list-style-type: none"> • I can describe the relationship between the moon and the Earth. 	
NJSL Standards			
RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how). RL.CR.1.1. Ask and answer questions about key details in a literary ext e.g., who, what, where, when, why, how). RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. SL.AS.1.6. Produce complete sentences when appropriate to task and situation. RI.MF.1.6. With prompting and support, use text features (e.g. diagrams, tables, animations) to describe [its] key ideas. (In a science unit students my look at data that			

indicates the impacts humans have on land, water, air, and/or other living things in the local environment and describe the key ideas that are presented in the data.)
W.SE.1.6. With guidance and support from adults, gather and select information from multiple sources to answer a question or write about a topic.

Key Instructional Practices

Key Teacher Questions Posed During the Lesson:

- What is the difference between a star and a planet?
- How many moons does earth have?
- We learned that the word reflect means to bounce off and refers to light, heat or energy. What does the moon reflect?
- Why does the moon look big and bright?
- Is the moon bigger or smaller than the earth? How do you know?
- What is an orbit?
- What is another example of one object orbiting another that we have learned about in this unit?
- How long does it take the moon to travel around the earth?
- How do people observe the moon?
- Look at the word “observatory.” What do you think an observatory is?
- The author describes a close-up view of the moon in the text and in a picture. But, the text says the moon is really far away, so how are we able to get this close-up view?
- How were craters formed on the moon? How does knowing how they are formed help us understand what craters look like?
- How have astronomers learned information about the moon?
- Why do you think people wanted to send spacecraft and astronauts to the moon?
- The author writes, “We are still learning more about our closest neighbor, the moon.” What else do you want to know about the moon? What kind of scientific tool would you need to find it out?

Daily Instructional Tasks:

Daily Instructional Task:

Write an informational paragraph about the moon. Include at least three facts about the moon in your written response. Use vocabulary and our class anchor chart to help you. In your writing, be sure to:

- Name your topic
- Supply some facts from the texts we’ve read
- Include vocabulary words (i.e., orbits, reflects)
- Provide a sense of closure.

Vocabulary:

- astronomers (embedded)
- satellite (implicit)
- reflects (explicit)

The following words are reviewed during this reading:

- planet
- crater
- orbit
- rotation

Learning Resources/Materials:

- Digital copy of book: 📖 The Moon Book by Gail Gibbons
- 📄 Lesson 16 anchor charts
- 📄 Earth Science Rubric: Lesson 16

Learning Procedures: (What specific learning experiences will support all students’ progress towards mastery of the learning intentions/objective(s)?)

→ **Part 1: Introduction of the vocabulary for this reading.**

- astronomers (embedded)
- satellite (implicit)
- reflects (explicit)

The following words are reviewed during this reading:


- planet
- crater
- orbit
- rotation

→ **Part 2: Interactive Writing**


Write down initial thoughts students have about the moon. As you read the text, stop and record facts students have learned about the moon on an anchor chart.

Read Aloud: *The Moon Book by Gail Gibbons*  *The Moon Book by Gail Gibbons*

Teacher Guidance: Read pages 1-9 and 20-27 for today's lesson. The section of the phases of the moon will be the focus of the second read.

- After reading Page 9: What are some facts we have learned about the moon in this text? Share one-two facts you learned about the moon with a partner. Let's add them to our chart.  Lesson 16 anchor charts

Facts About the Moon
The moon makes no light
The moon reflects the sun's light.
The moon is smaller than the Earth.
There is no air on the moon.
The moon is made up of rock and dust.
The moon orbits the Earth.

- After reading: Let's think about all the information we have learned about the moon in this text. Are there any other facts we can add to our chart?
 Lesson 16 anchor charts

Facts About the Moon	
The moon makes no light	The moon has craters, mountains and valleys.
The moon reflects the sun's light.	Spacecrafts have taken photos of the moon.
The moon is smaller than the Earth.	Astronauts have traveled to the moon.
There is no air on the moon.	
The moon is made up of rock and dust.	
The moon orbits the Earth.	

→ **Part 3: Daily Instructional Task:**

Write an informational paragraph about the moon. Include at least three facts about the moon in your written response. Use vocabulary and our class anchor chart to help you.

In your writing, be sure to:

- Name your topic
- Supply some facts from the texts we've read
- Include vocabulary words (i.e., orbits, reflects)
- Provide a sense of closure.

Possible Student Response:

There are many interesting facts about the moon. The moon looks very big and bright in the night sky. The moon looks like this because it is closer to Earth than any other star or planet. The moon does not make its own light. It reflects the light of the sun. The moon orbits the Earth. Astronomers learn about the moon by observing it through telescopes and by sending spacecraft and astronauts to the moon. There is so much more we can learn about the moon!

- Lesson rubric: [Earth Science Rubric: Lesson 16](#)

	3	2	1
Accuracy of Writing	The writing accurately explains what the student has learned about the moon and how information about the moon was obtained by astronomers.	The writing attempts and explains mostly what the student has learned about the moon and how information about the moon was obtained by astronomers.	The writing attempts, however, does not accurately explain what the student has learned about the moon and how information about the moon was obtained by astronomers.
Organization	The writing includes an introduction, facts/vocabulary, and conclusion.	The writing includes 2 out of 3: an introduction, facts/vocabulary and conclusion.	The writing includes 1 out of 3: an introduction, facts/vocabulary, and conclusion.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias

Teacher Notes:

Lesson 17

Grade: 1st	Unit: Earth Science	Lesson Title: Papa, Please get the Moon for Me	Instructional Days: 1-2
Learning Intentions		Success Criteria	
<ul style="list-style-type: none"> • I am learning to retell the story using key details to 		<ul style="list-style-type: none"> • I can make a prediction about the cause of the moon's changing shape based on the details in the story. 	

- I am learning to distinguish between information about the moon that is realistic and fictional
- I am learning how to make predictions based on events in the story.

NJSLS Standards

RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).
 RL.CR.1.1. Ask and answer questions about key details in a literary text e.g., who, what, where, when, why, how).
 RI.PP.1.5. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
 SL.AS.1.6. Produce complete sentences when appropriate to task and situation.
 RI.MF.1.6. With prompting and support, use text features (e.g. diagrams, tables, animations) to describe [its] key ideas. (In a science unit students may look at data that indicates the impacts humans have on land, water, air, and/or other living things in the local environment and describe the key ideas that are presented in the data.)
 RL.MF.1.6. With prompting and support, use illustrations and details in a story to describe its characters, setting, or events.
 W.RW.1.7. Engage in discussion, drawing, and writing in brief but regular writing tasks.
 K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.

Key Instructional Practices

Key Teacher Questions Posed During the Lesson:

- What will happen when Monica tries to reach for the moon?
- Let's make a prediction, what is Papa going to do? Why?
- Why didn't Papa take the moon? How do we know?
- What does the word "disappeared" mean? How do we know?
- What does the word "reappear" mean? How do we know?

Daily Instructional Tasks:

Daily Instructional Task:

Write what happened to the moon in Papa, Please Get the Moon for Me? Why do you think that happened? Use what you learned about the moon in The Moon Book to inform your prediction.




In your writing, be sure to:

- introduce your topic;
- explain at least three events that occurred in the story;
- include at least one prediction about the cause of the moon's changing shape; and
- provide some sense of closure.

Vocabulary:

- near (embedded)
- disappeared (implicit)
- sliver (implicit)
- reappear (implicit)

Learning Resources/Materials:

- Digital copy of book:  Papa please get the moon for me
-  Earth Science Lesson 17 anchor chart
-  Earth Science Rubric: Lesson 17

Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of the learning intentions/objective(s)?)

→ **Part 1: Introduction of the vocabulary for this reading.**

- near (embedded)
- disappeared (implicit)
- sliver (implicit)
- reappear (implicit)

→ **Part 2: Interactive Writing**

While reading, add details to the chart about what is happening to the moon [Earth Science Lesson 17 anchor chart](#). Organize them by details that are true and those that are fictional. Students will use this same chart to record details about another text, *How the Moon Regained her Shape*.

Details about the moon that are true	Details about the moon that are fictional

[Questions & Read Aloud](#): *Papa, Please Get the Moon For Me* by Eric Carle [Papa please get the moon for me](#)

→ **Part 3: Daily Instructional Task:**

Explain what happened to the moon in Papa, Please Get the Moon for Me?

After writing, encourage students to make a prediction telling why they think the moon changed in the story. Have students share their predictions.

Remind students to:

- introduce your topic;
- explain at least three events that occurred in the story;
- include at least one prediction about the cause of the moon's changing shape; and
- provide some sense of closure.


- Lesson Rubric: [Earth Science Rubric: Lesson 17](#)

	3	2	1
Accuracy of Writing	The writing accurately predicts what happened to the Moon.	The writing attempts to predict what happened to the Moon.	The writing attempts, however, does not accurately predict what happens to the moon.
Organization	The writing includes an introduction, facts, and conclusion.	The writing includes 2 out of 3: an introduction, facts, and conclusion.	The writing includes 1 out of 3: an introduction, facts, and conclusion.
Capitalization	All sentences begin with a capital.	Most sentences begin with a capital.	Most sentences do not begin with a capital letter.
Usage	Each sentence has subject/predicate agreement.	Most sentences have subject/predicate agreement.	Few sentences have subject/predicate agreement.
End Punctuation	Every sentence ends with correct punctuation.	Most sentences end with correct punctuation.	Few sentences end with correct punctuation.
Total			

Learning Assessments: (How will teachers monitor student learning throughout the lesson?)

- Checks for understanding
- Skills Trackers
- Daily Instructional Task
- Key Teacher Questions Posed
- Student reflection

Differentiation:

- Key vocabulary terms and definitions can be provided to students ahead of time in order to better comprehend the text as they read independently.
- Discussing, clarifying, and breaking down the language of the learning targets to ensure comprehension
- Present questions for students to see on the board as they are discussed with the class
- Chunking the text into smaller sections for deeper analysis
- Ask students to periodically self-assess their own learning to give an idea of how much they accomplished over the course of the lesson.
-  Grade 1 Compare and Contrast Picture vs. Text

Possible Misconceptions:

- Students may not have a deep contextual understanding
- Students may not understand implicit and explicit bias
- Students might think the size of the moon changes, but it's really just its appearance and how/when we view it.

Teacher Notes:

Lesson 18

Grade: 1st	Unit: Earth Science	Lesson Title: The Moon Book	Instructional Days: 1-2
Learning Intentions		Success Criteria	

- I am learning that the moon's orbit around Earth causes patterns in the amount of light we are able to see reflected on the moon.
- I am learning about the phases of the moon.

- I can retell details from the text to name and describe each phase of the moon;
- I can use illustrations and text features to support their understanding of the different phases of the moon; and
- I can use manipulatives to collaboratively create a reference chart.

NJSL Standards

RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).

RL.CR.1.1. Ask and answer questions about key details in a literary ext e.g., who, what, where, when, why, how).

RI.MF.1.6. With prompting and support, use text features (e.g. diagrams, tables, animations) to describe [its] key ideas. (In a science unit students may look at data that indicates the impacts humans have on land, water, air, and/or other living things in the local environment and describe the key ideas that are presented in the data.)

RL.MF.1.6. With prompting and support, use illustrations and details in a story to describe its characters, setting, or events.

W.RW.1.7. Engage in discussion, drawing, and writing in brief but regular writing tasks.

Key Instructional Practices

Key Teacher Questions Posed During the Lesson:

- The author says that the moon "is bright in the night sky." Why is that?
- How does the moon move?
- What causes the moon to look like it's changing?
- How does the amount of light reflected on the moon change?
- What do we see during the New Moon Phase? Why?
- What does a crescent moon look like? What does the first-quarter moon look like?
- How do the illustrations on this page help you understand what waxing means?
- Using the illustrations and the text, explain how the two gibbous moons are different?
- How are the two crescent moons different?
- What does waning mean? How do you know?
- When does waning start?
- How long does it take the moon to go through its phases?
- Does the moon really change shape?

Daily Instructional Tasks:

Daily Instructional Task:

Tomorrow we will be writing a letter to Monica from Papa, Please Get the Moon for Me. Before we do, we need to make sure we understand the phases of the moon. Explain why the shape of the moon appears to change.

In your writing, be sure to:

- name your topic;
- supply some facts from the text;
- include vocabulary words (phases, reflects, light); and
- provide a sense of closure.

Vocabulary:

- phases (explicit)
- crescent (implicit)
- waxing (explicit)
- quarter (embedded)
- gibbous (explicit)
- waning (explicit)

The following words are reviewed during this reading:

- satellite
- rotation
- Sliver

Learning Resources/Materials:

- Digital copy of book: 📖 The Moon Book by Gail Gibbons
- 📄 Lesson 18 phases of the moon chart sample
- 📄 Earth Science Rubric: Lesson 18

Learning Procedures: (What specific learning experiences will support all students' progress towards mastery of the learning intentions/objective(s)?)

→ **Part 1: Introduction of the vocabulary for this reading.**

- phases (explicit)
- crescent (implicit)
- waxing (explicit)
- quarter (embedded)
- gibbous (explicit)
- waning (explicit)

The following words are reviewed during this reading:

- satellite
- rotation
- Sliver

→ **Part 2: Collaborative Task:**

We've just read The Moon Book by Gail Gibbons 📖 The Moon Book by Gail Gibbons . Together as a class, we are going to create a (anchor-sized) chart titled "Phases of the Moon" that illustrates and describes the eight phases of the moon 📄 Unit 5 Lesson 18 phases of the moon chart sample . You will work collaboratively with a group of 2 or 3 students to illustrate your assigned phase of the moon. On the sentence strip, correctly label the moon phase. As your group adds your moon phase to the chart, share with the class the part of the moon we are able to see during the phase and why we see that part.

→ **Teacher Guidance:** Provide a yellow paper circle and a sentence strip to each partner/trio group. After reading the text, put up a chart titled "Phases of the Moon." There should be 8 sections marked off across the chart. Student groups will be assigned a phase. They will use the sentence strip to write the phase (referring to the text as needed) and cut and fold the paper plate to represent the moon. The teacher can give an extra sentence strip to two groups, and students can write "Waxing" and "Waning" to add to the chart. (See example chart below).

→ **Alternatives:** Give each group a set of moon phases and labels. (The teacher would need to pre-cut the different shapes for each phase.) Then in groups, students work together to put the phases in order and place each label by the corresponding phase. Once complete and checked by the teacher, students can tape or glue their phase cutouts and labels onto a poster. Each group will make their own poster. If the phases of the moon are a new concept for children, it may be helpful to draw or construct one chart together as a class with the teacher providing a higher level of guidance and prompting. Then, students can work in groups to create their own charts.



Read Aloud: *The Moon Book by Gail Gibbons*  *The Moon Book by Gail Gibbons*


→ **Part 3: Daily Instructional Task:**

Tomorrow we will be writing a letter to Monica from Papa, Please Get the Moon for Me. Before we do, we need to make sure we understand the phases of the moon. Explain why the shape of the moon appears to change.

In your writing, be sure to:

- name your topic;
- supply some facts from the text; (brainstorming)
- include vocabulary words (phases, reflects, light); and
- provide a sense of closure.

Possible Student Response: The moon looks like it changes shape, but it doesn't. The moon doesn't shine light on its own. It reflects light from the sun. We see different shapes of light on the moon because the Earth orbits the sun. Sometimes we see a lot of time reflected on the moon and sometimes we don't see any at all.

- Lesson Rubric:  *Earth Science Rubric: Lesson 18*