TEACHING LITERACY IN TENNESSEE: UNIT STARTER
GRADE 1

DRAFT 10/24/17

Important Note: *The unit starter provides the foundation for unit planning. In addition to thoughtful preparation from these resources, there are additional components of the literacy block for which educators will need to plan and prepare. See page 5 for more guidance on planning for other components of the literacy block.*

This unit starter is being released in draft form to be pilot tested in classrooms across Tennessee. The Tennessee Department of Education is committed to improving this resource to meet the needs of Tennessee educators and students and welcomes feedback on the design and usability of the unit starter. Please share your feedback through our online feedback form here. The department will use this feedback to improve this resource and inform the development of future resources.

TN Department of Education

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GUIDANCE FOR EDUCATORS

1. WHY IS THE DEPARTMENT PROVIDING UNIT STARTERS?

The research is clear: reading proficiently—especially reading proficiently early—prepares students for life-long success. To support greater reading proficiency among all students in Tennessee, Governor Haslam, the First Lady, and Commissioner McQueen kicked off the Read to be Ready campaign in February 2016 with a goal of having 75 percent of Tennessee third graders reading on grade level by 2025. Together, we are making progress. High-quality texts that meet grade-level expectations are increasingly making their way into classrooms. Students are spending more time reading, listening, and responding to texts that have the potential to build both skill-based and knowledge-based competencies. However, the first year of the initiative has revealed a need for strong resources to support the growing teacher expertise in Tennessee.

Earlier this year, the Tennessee Department of Education released Teaching Literacy in Tennessee. This document outlines the types of opportunities students need to become proficient readers, writers, and thinkers and includes a literacy unit design framework describing the ways that teachers can create these opportunities. This includes building rich learning opportunities around meaningful concepts within the English language arts block where students listen to, read, speak, and write about sets of texts that are worthy of students' time and attention. The department is committed to providing continued support to teachers and leaders in implementing this vision for literacy, which is why we are excited to release our Teaching Literacy in Tennessee: Unit Starters for grades K-3.

The resources found in the Teaching Literacy in Tennessee: Unit Starters are intended to support planning for one full unit aligned to the vision for Teaching Literacy in Tennessee. They are intended to serve as a model to reference as educators continue to design units and compare the alignment of lessons to the vision for Teaching Literacy in Tennessee.

2. WHAT RESOURCES ARE INCLUDED IN A UNIT STARTER?

The unit starters include several of the key components in the framework for Teaching Literacy in Tennessee. These components serve as the foundation for strong unit planning and preparation.

Content Goals: Each unit starter begins with content goals that articulate the desired results for learners.

> Universal Concept: A concept that bridges all disciplinary and grade-level boundaries. This concept provides educators and students with an organizational framework for connecting knowledge across disciplines into a coherent view of the world.
>
> > Universal Concept Example: Interdependence
>
> Unit Concept: The application of the universal concept to one or more disciplines. This concept provides students with an organizational framework for connecting knowledge within the disciplines into a coherent view of the world and provides educators with a focus for unit planning.
>
> > Unit Concept Example: Interdependence of living things

Enduring Understandings and Essential Questions: The ideas we want students to understand, not just recall, from deep exploration of our unit concept and the corresponding open-ended questions that will guide students' exploration of these ideas. The enduring understandings reflect the abstract, easily misunderstood, "big" ideas of the discipline. They answer questions like "Why?" "So what?" and "How does this apply beyond the classroom?" to support deep levels of thinking. These questions spark genuine and relevant inquiry and provoke deep thought and lively discussion that will lead students to new understandings. [Adapted from McTighe, J. & Seif, E. (2011), Wiggins, G. & McTighe (2013).]

Enduring Understanding Example: People, plants, and animals depend on each other to survive.
Essential Question Example: Why do human's need to preserve trees?

Disciplinary Understandings and Guiding Questions: Disciplinary understandings are the specific ideas and specialized vocabulary of the discipline. These ideas will focus instruction, build disciplinary knowledge, and provide the schema to organize and anchor new words. Student understanding of these content-related ideas is critical to investigation and understanding of the more abstract and transferable ideas outlined in the enduring understandings. Guiding questions are open ended and guide students' exploration of the disciplinary understanding. These questions prompt ways of thinking and support knowledge building within the content areas.

Disciplinary Understanding Example: The structure of plants and the function of each part
Guiding Question Example: Why are roots important to plants?

Texts for Interactive Read Aloud & Shared Reading: Each unit starter includes a collection of 10-12 complex texts to support strong interactive read aloud and shared reading experiences. These texts have been selected to regularly expose students to rich academic language and build the desired understandings for the unit. Given the complexity of these texts, teachers should revisit them with students after the initial read(s) to deepen knowledge. Teachers also may analyze and select additional suitable texts based on instructional goals and student needs. *See page 38 in* Teaching Literacy in Tennessee *for the three-part model for determining text complexity:* ***quantitative*** *dimensions of text complexity;* ***qualitative*** *dimensions of text complexity; and* ***reader and task*** *considerations.*

The concepts for the first set of unit starters were derived from the vertical progression of Tennessee's Earth Science Standards and focus on Earth's place in the universe:

Kindergarten: There are common, predictable weather patterns associated with each season, and people, animals, and plants respond to these changing weather patterns.

Grade 1: Celestial bodies in the solar system are in motion, resulting in patterns like day and night, the seasons, and the moon's phases.

Grade 2: Some changes in Earth's surface happen slowly, due to natural processes on Earth's surface. Others happen suddenly due to incredible forces deep inside Earth.

Grade 3: Each of the planets in the solar system has its own special path—or orbit—around the sun, resulting in specific characteristics.

Suggested Resources for Small Group & Independent Reading: The unit starters include a list of suggested resources (texts, videos, online resources) to support a volume of reading on the unit concepts. These materials may be used during small group instruction and/or independent reading and writing activities to support

knowledge building for students and to meet students' diverse learning needs.

End-of-Unit Task: Each unit starter includes an end-of-unit task that provides an opportunity for students to demonstrate their understanding of the unit concept and to answer the essential questions for the unit in an authentic and meaningful context.

Daily Tasks & Question Sequences: Each unit starter includes a daily task and question sequence for approximately three weeks of instruction. The question sequences support students in accessing the complex texts during interactive read aloud or shared reading by drawing students' attention to the challenging elements in the text and guiding students toward the desired understandings.

The daily tasks provide a discussion or writing opportunity for students to demonstrate their new understandings using details from the texts read across the daily literacy block. The texts and tasks have been carefully sequenced to support students in building disciplinary understandings over the course of the unit, so they are able to successfully engage in the end-of-unit task.

3. WHAT RESOURCES ARE NOT INCLUDED IN A UNIT STARTER?

These resources provide the foundation for unit planning but are not intended to be a comprehensive curriculum resource. Instead, educators must thoughtfully prepare from the resources that are included in the unit starter and plan for other components of the English language arts block. The unit starters **do not include** instructional guidance to meet the diverse and unique needs of your students, including:

- Instructional guidance for small group and independent reading and writing
    - Students should be grouped flexibly and resources selected to meet specific and unique needs of students, which may change over time.
- Instructional guidance and resources for explicit foundational skills instruction and foundational skills practice in and out of context
    - Reading foundational skills instruction should follow a year-long scope and sequence and be responsive to the unique needs of your students.

Please refer to Teaching Literacy in Tennessee for definitions of new or unfamiliar terms used in this document.

4. HOW SHOULD I USE THE RESOURCES IN THE UNIT STARTER TO PLAN MY UNIT?

The unit starter provides the foundation for unit planning. In addition to thoughtful preparation from these resources, there are additional components of your literacy block for which you will need to plan and prepare.

Interactive Read Aloud and Shared Reading Experiences
To prepare for the unit, start by thoroughly reviewing the resources that are included in the unit starter. These resources are designed to support students in thinking deeply about complex text through interactive read aloud and shared reading experiences and in expressing their understanding through speaking and writing. To support this step, a preparation protocol is included in Appendix A.

Small Group Reading and Writing
In addition to interactive read aloud and shared reading experiences, plan small group instruction to support the diverse needs of students in your classroom. Group students flexibly and select texts to meet your students' specific needs, which may change over time, so they can meet grade-level expectations:

Accuracy/word analysis: Some students may need additional practice with foundational reading skills that have already been taught and now are applied to reading authentic texts.

Fluency: Some students may be strong decoders but still struggle to read fluently, which holds them back from successful comprehension.

Comprehension: Some students may lack the knowledge and vocabulary needed to make sense of what they are reading, struggle to navigate complex sentence structure, or struggle with a particular comprehension strategy.

The unit starters include a list of suggested resources (texts, videos, online resources) that can be used to support small group instruction.

Modeled, Shared and Interactive Writing

To prepare students for success on the daily and end-of-unit tasks in the unit starter, plan for modeled, shared and interactive writing opportunities. Modeled writing is an instructional strategy where the teacher explicitly demonstrates the writing process for different forms and purposes. Shared writing is an instructional strategy where the teacher and students compose a text together with the teacher acting as the scribe. Interactive writing is an extension of shared writing in which the teacher and students compose a text together with the teacher strategically sharing the pen during the process.

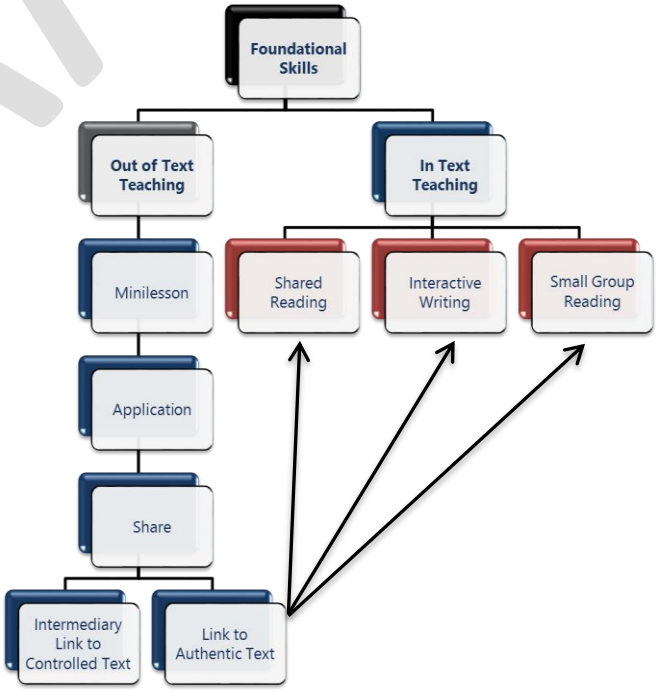
Independent Reading and Writing

The Tennessee English Language Arts Standards call for students to read a range of literary and informational texts and engage in a high volume of reading independently. Plan for how you will use the suggested resources for small group and independent reading to engage students in a volume of reading. Consider setting up systems for accountability during independent work time such as one-on-one conferences, center assignments, and/or accountable independent reading structures.

See pages 41-43 in Teaching Literacy in Tennessee for a description of these instructional strategies and their purpose within the literacy block.

Explicit Foundational Skills Instruction

It is recommended that educators consult the Foundational Literacy Standards and use a systematic phonics sequence (often found within a phonics program) for foundational skills instruction in conjunction with the resources in the unit starter. Strong foundational skills instruction follows an intentional, research-based progression of foundational skills that incorporates phonological awareness, phonics, and word recognition.



Foundational Skills Practice Out of Text and In Text

Strong foundational skills instruction includes opportunities for students to practice their newly acquired skills out of text and in text.

Out-of-text instruction may take the form of minilessons and hands-on application through activities, such as word sorts or the use of

manipulatives.

In-text instruction provides opportunities across the literacy block for students to further apply their new learning in authentic reading and writing texts. Foundational skills assessments should be ongoing and should be used to determine when students have mastered the skill and are ready to move on to the next skill.

See pages 78-79 in Teaching Foundational Skills Through Reading and Writing Coach Training Manual *for more information about the relationship between out of text and in-text teaching.*

Structures for Academic Talk & Collaboration
The unit starters include suggestions for questions and daily tasks, but they do not include guidance on how to structure sharing/discussion time. Consider planning how your students will engage with you and each other when responding to complex text orally or in writing by incorporating things like expectations for talk time, sentence starters, hand signals, etc.

5. WHAT MATERIALS DO I NEED TO ORDER AND PRINT?

Texts for Interactive Read Aloud & Shared Reading
Each of the texts included in the unit starters can be purchased or accessed online. A list of these texts is included in the unit starter materials. Educators will need to purchase or print one copy of each text selected to support interactive read aloud experiences and one copy per student of each text selected to support shared reading experiences (Note: unless you plan to project the text for students to read or purchase a big book option).

Suggested Texts for Small Group & Independent Reading
Additionally, each of the texts suggested for small group and independent reading can be purchased or accessed online.

Materials to Be Printed
The unit starters can be accessed digitally here. Student handouts are included in the appendices for printing. Educators may also consider printing:

- **Question Sequence –** Teachers may want to print question sequences or write the questions on sticky notes to have them available during interactive read aloud and shared reading experiences. Even where page numbers are not indicated in the question sequence, questions are intended to be asked throughout the reading of the text, during the relevant portions of the text.
- **Daily Task –** Teachers may want to print the teacher directions for the daily task.
- **End-of-Unit Task –** Teachers may want to print the teacher directions for the end-of-unit task.

6. WHERE CAN I SHARE MY FEEDBACK ON THE UNIT STARTER?
The Tennessee Department of Education welcomes any feedback you have on the design and usability of the Teaching Literacy in Tennessee: Unit Starters. Please share your feedback through our online feedback from here.

UNIT OVERVIEW

This unit starter is organized around three questions: (1) What are the desired results for learners? (2) How will students demonstrate these desired results? (3) What learning experiences will students need to achieve the desired results?

The diagram on the next page provides a high-level overview of the unit.

Guidance for the central text and lead strategy for each day of instruction has been provided in the unit starter. It is important to note that this guidance does not reflect a comprehensive literacy block. Educators should support students in developing their expertise as readers and writers by flexibly utilizing a variety of instructional strategies throughout the literacy block.

Educators are also encouraged to use the guidance from this unit starter flexibly based on the needs, interests, and prior knowledge of students. For example, teachers may decide to re-read a text, pull in supplementary texts, or provide additional scaffolding based on their knowledge of their students. Teachers are encouraged to be strategic about how many instructional days to spend on this unit.

UNIT OVERVIEW

WHAT ARE THE DESIRED RESULTS FOR LEARNERS?

By the end of this unit students will understand …

Universal Concept: Observed patterns prompt questions about relationships.

Unit Concept: Predictable patterns result from movement of bodies in the universe.

Enduring Understandings: All bodies in the universe are in motion. Relationships between these moving bodies create observable patterns.

Essential Questions: Why do objects in space appear to change or move? How does the movement of bodies in the universe create patterns that we observe?

Disciplinary Understandings: There are many bodies in the universe, including Earth.

We cannot see all of these bodies with the naked eye because of the vastness of space.

The bodies we can observe from Earth appear to change or move.

Guiding Questions: What exists in the universe? How big is the universe? What can we observe from Earth?

HOW WILL STUDENTS DEMONSTRATE THESE DESIRED RESULTS?

Students will synthesize their learning from the unit texts and demonstrate understanding in the following authentic and meaningful context …

End-of-Unit Task:

Instructions: We have read about several observable patterns such as day and night, phases of the moon, constellations, and the seasons that affect Earth, and we took notes on our class Astronomer's Log and synthesized many of the things we learned along the way.

Using that log and our synthesized writings, create a brochure that informs visitors at your school's STEM night about the patterns created by our universe's moving bodies.

Be sure to name the different topics we discussed, write and draw some facts about each topic, and end with some closing thoughts about patterns in the universe. Be sure to cite details from more than one of the texts we read.

WHAT LEARNING EXPERIENCES WILL STUDENTS NEED TO ACHIEVE THE DESIRED RESULTS?

Students will build the desired understandings with deep exploration of complex texts through interactive read aloud (IRA) and shared reading (SR) experiences …

Day 1 (IRA): *On Earth*

Day 2 (IRA): *What Makes Day and Night?*

Day 3 (SR): *Why Does the Earth Spin? And Other Questions About Our Planet*

Days 4 and 5 (SR): *The Moon Book*

Days 6 and 7 (IRA): *If You Decide to Go to the Moon*

Day 8 (IRA): *The Moon Seems to Change* (Stage 2)

Day 9 (SR): *Papa, Please Get the Moon for Me*

Day 10 and 11 (IRA): *The Moon Rooster*

Day 12 (SR): *My Stars*

Day 13 (IRA): *Sunshine Makes the Seasons*

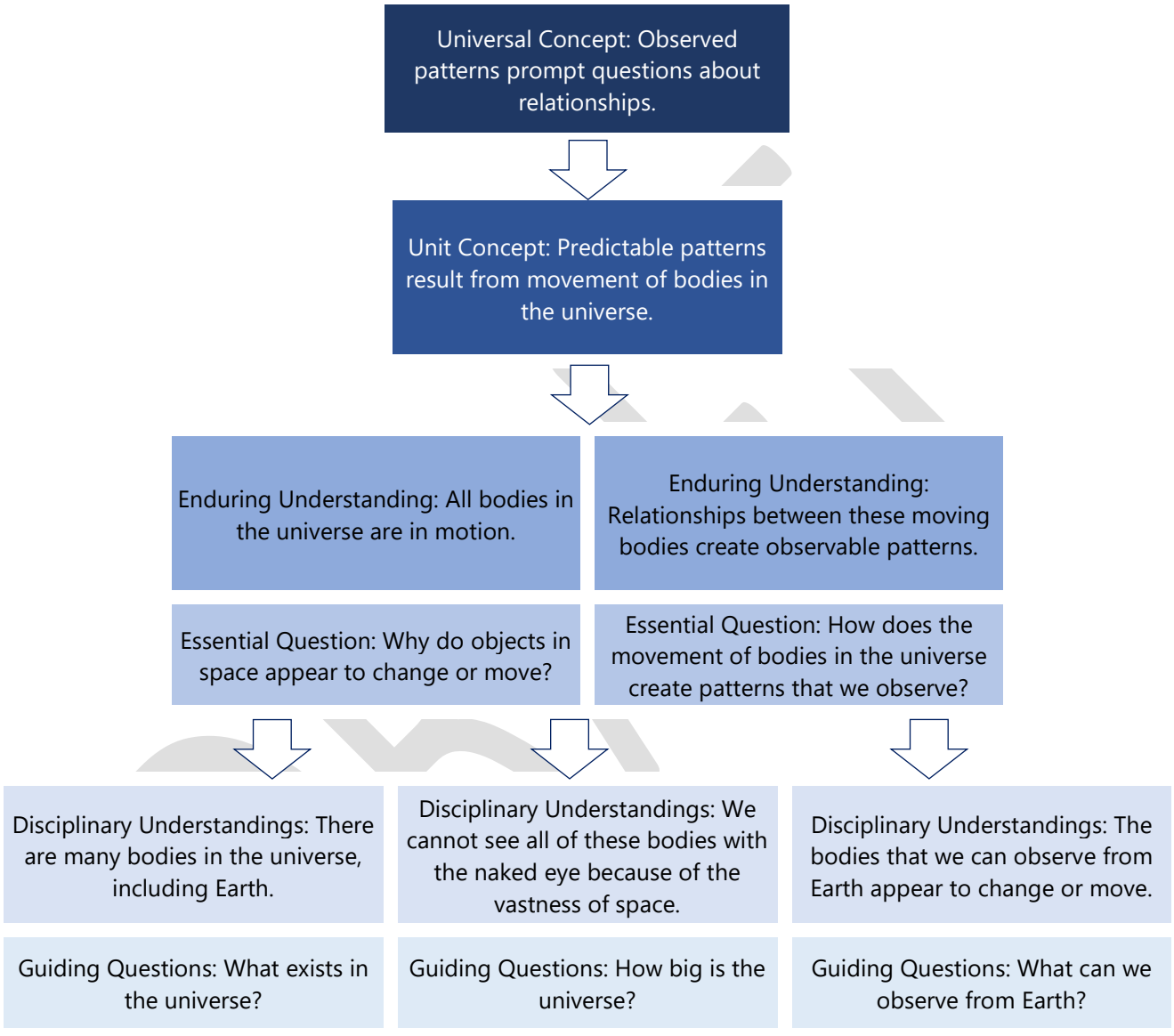
Day 14 (IRA): *The Reason for Seasons*

Days 15 and 16: End-of-unit task

Note that even though days and instructional strategies are listed above to lead the day's instruction, teachers will normally couple multiple instructional strategies in concert (see page 13 of *Teaching Literacy in Tennessee)*. It is also assumed that teachers will re-read a text on subsequent days as needed, pull in supplementary texts, or provide additional scaffolding based on their knowledge of their students. Teachers are encouraged to be strategic about how many instructional days to spend on this unit.

UNIT CONTENT GOALS

By the end of this unit, students will have achieved the desired understandings outlined below.



1.ESS1.1: Use observations or models of the sun, moon, and stars to describe patterns that can be predicted.
1.ESS1.2: Observe natural objects in the sky that can be seen from Earth with the naked eye and recognize that a telescope, used as a tool, can provide greater detail of objects in the sky.
1.ESS1.3: Analyze data to predict patterns between sunrise and sunset, and the change of seasons.

UNIT STANDARDS

The questions and tasks outlined in this unit starter are aligned with the following Tennessee English language arts and science standards.

ALIGNED STANDARDS: INFORMATIONAL TEXT

1.RI.KID.1 Ask and answer questions about key details in a text.

1.RI.KID.2 Identify the main topic and retell key details of a text.

1.RI.KID.3 Using graphic organizers or including written details and illustrations when developmentally appropriate, describe the connections between two individuals, events, ideas, or pieces of information in a text

1.RI.CS.4 Determine the meaning of words and phrases in a text relevant to a grade 1 topic or subject area

1.RI.CS.5 Know and use various text features to locate key facts or information in a text

1.RI.CS.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

1.RI.IKI.7 Either orally or in writing when appropriate, use the illustrations and words in a text to describe its key ideas.

1.RI.IKI.8 Identify the reasons an author provides to support points in a text.

1.RI.IKI.9 Identify basic similarities and differences between two texts on the same topic including written details and illustrations when developmentally appropriate.

1.RI.RRTC.10 With prompting and support, read informational texts of appropriate complexity for grade 1.

ALIGNED STANDARDS: LITERATURE

1.RL.KID.1 Ask and answer questions about key details in a text.

1.RL.KID.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.

1.RL.CS.4 Identify words and phrases in stories and poems that suggest feelings or appeal to the senses.

1.RL.IKI.7 Either orally or in writing when appropriate, use illustrations and words in a text to describe its characters, setting, or events.

1.RL.RRTC.10 With prompting and support, read stories and poems of appropriate complexity for grade 1.

ALIGNED STANDARDS: WRITING

1.W.TTP.2 With prompting and support, write informative/explanatory texts, naming a topic, supplying some facts about the topic, and providing some sense of closure.

1.W.PDW.4 With guidance and support, produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade specific expectations for writing types are defined in standards 1-3 above.)

1.W.PDW.5 With guidance and support from adults, focus on a topic, respond to questions and suggestions from others, and add details to strengthen writing as needed.

1.W.RBPK.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

1.W.RW.10 With guidance and support from adults, engage routinely in writing activities to promote writing fluency and build writing stamina.

ALIGNED STANDARDS: SPEAKING & LISTENING

1.SL.CC.1 Participate with varied peers and adults in collaborative conversations in small or large groups about appropriate 1st grade topics and texts.

1.SL.CC.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

1.SL.CC.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

1.SL.PKI.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.

1.SL.PKI.5 Add drawings or other visual displays to descriptions, when appropriate, to clarify ideas, thoughts, and feelings.

1.SL.PKI.6 With prompting and support, speak in complete sentences when appropriate to task and situation.

ALIGNED STANDARDS: SCIENCE

1.ESS1.1: Use observations or models of the sun, moon, and stars to describe patterns that can be predicted.

1.ESS1.2: Observe natural objects in the sky that can be seen from Earth with the naked eye and recognize that a telescope, used as a tool, can provide greater detail of objects in the sky.

1.ESS1.3: Analyze data to predict patterns between sunrise and sunset, and the change of seasons.

TEXTS FOR INTERACTIVE READ ALOUD & SHARED READING

These texts have been selected to regularly expose students to rich academic language and build the desired understandings for the unit. They have been vetted for quality and complexity to support strong interactive read aloud and shared reading experiences.

While preparing for instruction, educators are urged to carefully consider the needs and interests of the readers and to be strategic about the types of tasks that will support readers in deeply engaging with these rich texts. Teachers should also consider how they will make connections to students' prior knowledge and students' cultural and previous academic experiences. Teachers need to consider the vocabulary demands of the text and the level of support readers will need to deeply understand the text. As teachers consider the reader and tasks, additional texts related to the unit concepts, or re-reads of unit texts, will likely need to be added. Some texts are suggested for one read, while others are recommended for multiple or subsequent reads. It is assumed that teachers will make connections across texts as they work through the unit, including during the production of tasks.

TITLE	AUTHOR
On Earth	G. Brian Karas
What Makes Day and Night?	Franklyn M. Branley
Why Does the Earth Spin? And Other Questions About Our Planet	Mary Kay Carson
The Moon Book	Gail Gibbons
If You Decide to Go to the Moon	Faith McNulty
The Moon Seems to Change	Franklyn M. Branley
Papa, Please Get the Moon for Me	Eric Carle
The Moon Rooster	David and Phillis Gershator
My Stars	Dina Anastasio
Sunshine Makes the Seasons	Franklyn M. Branley
The Reasons for Seasons	Gail Gibbons

SUGGESTED RESOURCES FOR SMALL GROUP & INDEPENDENT READING

These resources can be used to support a volume of reading on the unit concepts. These materials may be used during small group instruction and/or independent reading and writing activities to support knowledge building for students and to meet students' diverse learning needs.

TITLE (TEXTS, VIDEOS & ELECTRONIC RESOURCES)	AUTHOR
When the Moon is Full (poems)	Penny Pollock
Interplanet Janet	Schoolhouse Rock
Birth of the Solar System	National Geographic
Our Sun	Kristine Carlson
Stargazers	Gail Gibbons
There's No Place Like Space: A Cat in the Hat Book	Tish Rabe
Faces of the Moon	Bob Crelin
Our Stars	Anne Rockwell
The Sky is Full of Stars	Franklyn M. Branley
Space: A Nonfiction Companion to Midnight on the Moon	Will Osborne and Mary Pope Osborne
Stars	Kristine Asselin
The Disappearing Moon	Reading A-Z
On the Moon	Reading A-Z

UNIT VOCABULARY

The following list contains vocabulary words from the interactive read aloud and shared reading texts that warrant instructional time and attention. Teachers should attend to these words **as they are encountered in the texts** to build students' vocabulary and to deepen their understanding of the unit concepts. Educators are encouraged to identify vocabulary that might be unfamiliar to students and to determine how they will teach those words (implicit, embedded, or explicit instruction) based on knowledge of their students. See Appendix B for an example routine for explicit vocabulary instruction.

Educators are also encouraged to dedicate a space in their classrooms to record unit vocabulary. This will provide a reference point for the students as they read, write, and talk about the unit topics. Through repeated exposure throughout the unit, students will develop their understanding of these words and will begin to use them in speaking and writing activities.

Astronomer	Hemisphere	Reflecting
Axis	Lunar	Rotation
Celestial	Migration	Star
Crescent	Observable	Solstice
Cyclical	Orbit	Sunlight
Equator	Phases	Tides
Equinox	Planet	Tilt
Freeze	Poles	Waning
Gibbous	Quarter	Waxing
Gravity	Reflect	Weightless

DAY 1: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *On Earth* by G. Brian Karas **Iteration:** First Read **Instructional Strategy:** Read Aloud

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
540L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The text structure is moderately complex. Text features enhance the reader's understanding and gorgeous illustrations support text understanding. The structure is poetic.	The language features of this text are moderately complex. The author makes concepts understandable to young readers. Poetic text consists of primarily simple and compound sentences. Some tier 2 vocabulary is present.
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The purpose of this text is very complex. It is subtle but reasonably easy to infer with support from text features. The paintings and simple narrative demonstrate abstract science concepts such as night and day, years, hemispheres, seasons, and gravity for children to access with support from the teacher.	The knowledge demands of this text are very complex. Students should have previous knowledge of the solar system/universe. There is a mixture of recognizable ideas and challenging abstract concepts about Earth and celestial bodies. A glossary defines basic terms, such as equator, sphere, rotate, axis, revolve, orbit, pole(s), and gravity.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
Our planet (Earth) is constantly in motion, spinning on its axis. Earth's motion causes day/night and seasons, and influences the weather and our annual calendar. Earth looks and feels different depending on where it tilts.

DAILY TASK
Writing Task: Answer the following question in writing: How does Earth move? What happens as a result of the movement of Earth? In your writing, be sure to name your topic, supply some facts about the topic, and provide a sense of closure.

EXEMPLAR STUDENT RESPONSE
Writing Task: Planet Earth is constantly in motion. It spins on its axis. Earth's motion causes day and night. Earth's motion also causes seasons. These are some of the things that happen as a result of the movement of Earth.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
	What phrase did the author use to describe our Earth moving? What else spins? Another word for spin is *rotate*.	Spinning like a Merry-Go-Round A basketball on someone's finger (illustrated on page 6); a globe; a fidget spinner
	How does Earth move? *If necessary:* What is one way Earth moves? What is another way it moves?	Spins on its axis; circles the sun; turning motion (revolution)
Reread pages 5-9	How is day different from night? *If students give simple responses about light and dark, go back to the illustration on pp. 3-4 and ask:* Where on Earth are we in the daytime? Where are we in the nighttime?	Day: we face the sun, light, warmth Night: turned away from the sun, growing shadows, we are able to see a universe of stars and planets Light side/facing the sun; dark side/turned away from the sun
	The author states that "we're one year older" when we orbit around the sun one	It takes 12 months for Earth to orbit the sun (we orbit as we spin); we count calendar days/months; we have

	time. Give examples of this from the text.	birthday celebrations; the seasons change/weather changes.
Page 17-20	How does Earth's movement affect day/night and our seasons? Notice how when it is summer on the bottom side of Earth, it is winter on the top side. What are the two parts—or halves (the top and bottom sides)— of Earth called?	We're warmer when tilting toward the sun and colder when tilting away from the sun. For the seasons, we have summer when we are tilting toward the sun, and winter when we are tilting away from the sun. Hemispheres
	Let's contrast the seasons. How are winter and spring different?	Winter: short days, long nights, cold; Spring: sunny days, warmer

DAY 2: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *What Makes Day and Night?* by Franklyn M. Branley **Iteration:** First Read *(The teacher may choose to spread the question sequence over two days.)* **Instructional Strategy:** Read Aloud

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
500L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The text uses simple sentences that are straightforward. The illustrations and photographs support the understanding of the text.	The language of the text is easily understood. There are some domain-specific words or concepts that the readers will need to be familiar with (e.g., North Pole, 24 hours, half, spinning, smoothly, shadow).
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The reader will understand how Earth's rotation creates day and night for different parts of the world during a 24-hour period.	Readers will need to understand that there are 24 hours in a day. They will also need to know that Earth turns. Readers will engage in an experiment to illustrate day, night, sunset, and sunrise.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
Night and day are caused by Earth's rotation. Earth is one of several planets to orbit the sun, and the moon orbits Earth. Students can model how we move from daylight to darkness by completing an experiment.

DAILY TASK
Writing Task: After reading, answer the following question in writing: What causes day and night? In your writing, be sure to name your topic, supply some facts about the topic, and provide a sense of closure. When you are finished, share your response with a partner. Ask questions, if needed, to clarify your thinking.

EXEMPLAR STUDENT RESPONSE
Writing Task: Night and day are caused by Earth's rotation. As Earth spins, different parts of Earth face the sun. The side facing the sun is having daytime. The side facing away from the sun is having night time. Earth never stops spinning, so we will never stop having day and night.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 8	On page 8, how does the author describe our planet Earth? What is the name for a shape that is perfectly round like a ball?	Round like a big ball; spinning A sphere
Page 10	Why don't we feel Earth moving?	We don't feel Earth moving because Earth spins smoothly. It always spins at the same speed and never stops turning.
Page 14	How are day and night created? How does this text relate to our previous text?	Earth's rotation creates day and night. Earth is always spinning on its axis, which causes day and night.
	How does Earth spin?	Earth spins once around in 24 hours, always at the same fast speed. Earth completes one turn each day and never stops spinning around on its axis.
	Compare Earth's orbit to the moon orbit.	The moon spins very slow; it has longer days and nights. Earth spins 14 times to one night on the moon. So, the moon has two weeks of daylight, then two weeks of night darkness. The moon has phases.

	The last page of the book says that the "Earth gives us about twelve hours of daylight and twelve hours of darkness." What do you notice about the amount of daylight and sunlight at different times of the year? (Wait for an answer.) Yes. Days are always 24 hours long, but we have more sunlight in the summer, and it is darker for longer in the winter. Later in our study of Earth and the solar system, we will learn how Earth's position and tilt relative to the sun makes the seasons of summer, fall, winter, and spring.	In the winter, days are shorter, and in the summer, days are longer.

DAY 3: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *Why Does the Earth Spin? And Other Questions About our Planet* by Mary Kay Carson **Iteration:** First Read (Note: Read *only* pages 5-13 and pages 21-24 for the Question Sequence provided. The teacher may choose to read the whole text through for continuity as a first shared read, or allow students to do so during independent reading time, but it is these selections that are most critical to achieving the desired understandings for the unit.) **Instructional Strategy:** Shared Reading

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
880L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The structure of this text is moderately complex. The table of contents, headers, and question/answer format help the reader understand how the book is organized. There are diagrams and photographs that support understanding, as well as an index to support locating topical information about Earth.	The language structures are very complex. Academic and subject-specific vocabulary presented allows students to explore Earth Science concepts.
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The purpose of this text is moderately complex. Readers will explore many concepts about our planet. Some of these include the moon's gravitational pull that creates tides, the changing seasons, the age of Earth's surface, and the climate.	The knowledge demands of this text are very complex. Readers need to understand that Earth is constantly in motion, and that this motion causes multiple daily and cyclical changes on the planet.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
The rotation and orbital paths of Earth create changes and patterns that can be observed and predicted. The seasons are created because Earth's tilting and rotation cause different parts of Earth to receive different

amounts of sunlight.

DAILY TASK
Writing Task: After reading, answer the following question in writing: What causes seasons? In your writing, be sure to name your topic, supply some facts about the topic, and provide a sense of closure. When you are finished, share your response with a partner. Ask questions, if needed, to clarify your thinking.

EXEMPLAR STUDENT RESPONSE
Writing Task: The seasons happen because Earth is tilted on its axis. As Earth orbits the sun, different parts of Earth lean toward the sun. The part of Earth leaning toward the sun is having summer. The part of Earth leaning away from the sun is having winter. The tilt of Earth makes the pattern of seasons repeat over and over.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Note: Read *only* pages 5-13 and pages 21-24.		
Page 9	The text explains that an *axis* is an imaginary line through the center of a planet. Earth tilts, or leans, on its axis. According to the text, how does Earth's tilting create our seasons?	When the tilted Earth is orbiting around the sun, different parts of the planet get different amounts of sunlight.
Page 9	According to this text, what makes Earth spin?	Spinning gasses and rocks in the solar system formed clumps into balls which became the planets. They continued to spin, and Earth still spins on its axis.
	Recall that when we read the book *On Earth*, we learned the name of the top and bottom sides of Earth. What are these called? According to the text, why does one of Earth's hemispheres have winter at the same time that the other hemisphere has summer?	Hemispheres Because Earth is tilting while it is orbiting around the sun, one of its hemispheres tilts toward the sun receiving more light, and the other part tilts away from the sun, getting less sunlight. The part with more sunlight has summer. The part with less sunlight has

		winter.
	Using the information from the text and the illustrations, how are night and day created during Earth's 24-hour spin?	Every 24 hours, Earth completes one full turn on its axis. During the day, Earth faces the sun. As Earth continues to turn, it moves this part away from the sun, turning the day to night.
	A *pattern* is created when something occurs repeatedly in the same manner. According to the information given in the text, what observable patterns have been created by Earth's rotation and orbit?	Earth's rotation and orbits create the pattern of day and night. Its revolution in its orbits creates the years and the patterns. Its tilt and position in its orbit create the seasons.

DAY 4: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *The Moon Book* by Gail Gibbons **Iteration:** First Read **Instructional Strategy:** Shared Reading

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
740L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
This informational text begins with more simple structure and evolves into more complex structure, with shifts in time that are not chronological (e.g., what we currently know about the moon, then what people in ancient times thought about it). The illustrations are essential to understanding the content.	The language features are very complex, with many Tier 3, content-specific words that students will need to learn (e.g., reflect, astronomers, waxing, waning) to fully understand the text. There is also a variety of sentence structures.
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The purpose of this text is slightly complex. The reader will be learning about the moon.	This text is a comprehensive introduction to the moon, with moderately complex knowledge demands. Students will build their schema about the moon and other celestial bodies by reading this text.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
During this read-through students will learn about the moon and Earth. They will be able to describe characteristics of the moon and will be able to describe how the moon orbits Earth.

DAILY TASK
Write an informational paragraph about what makes the moon unique. Include at least three things you learned about the moon in your written response. Use vocabulary and the chart to help you. Be sure to name the topic, supplying some facts about the topic, and providing some sense of closure.

EXEMPLAR STUDENT RESPONSE
The moon has many unique characteristics. 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 makes no light of its own. It looks bright because it is reflecting the sun's might. A longtime ago, people thought the moon showed a man's face. These are just some of the things that make the moon unique.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
	How does the author describe our moon?	The author describes the moon as being the "brightest and biggest light". The moon "outshines all the stars and planets."
	What makes our moon look so big and bright?	Our moon looks so big and bright because it is closer to Earth than any other star or planet.
	What are some specific facts from the text that give us information about the moon and Earth? (Consider recording some of these facts on chart-paper. As you continue reading the text, support students in pulling out key information to add to the chart.)	The moon is about 2,000 miles in diameter. The moon is about 6,800 miles around. Earth is about 8,000 miles in diameter. Earth is about 25,000 miles around. The moon makes no light. The moon reflects the sun's light. The moon is one-fourth the size of Earth.

		The moon is made up of rock and dust. There is no air on the moon. Astronomers think the moon formed about 4.5 billion years ago.
	What do astronomers study? What do you see in this picture? What might that tell you about astronomers?	Astronomers study planets, their moons, and the stars. I see a man in the picture looking inside of a tool. The tool is pointing toward the sky. The tool in the picture might help astronomers see the planets, their moons and the stars. Maybe he is telling the woman something about what he sees and she is writing it down.
	What does the word orbit mean? <Invite two students to demonstrate what it means for the moon to orbit around Earth with their bodies.>	Orbit means one object travels in a path around another object.
	What did ancient people believe about the moon?	Ancient people thought: (1) the moon was a powerful god or goddess, (2) the moon and sun were brother and sister gods, (3) the moon showed a man's face, (4) the "man in the moon" was imprisoned there for stealing, and (5) demons lived there.

DAY 5: QUESTION SEQUENCE AND DAILY TASK

TEXT

Text: *The Moon Book* by Gail Gibbons

Iteration: Second Read

Instructional Strategy: Shared Reading

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH

During this read through, students will learn that the moon's orbit around Earth causes observable phases. Students will understand that as the moon moves, the amount of light reflected on it changes causing the moon to seem to change shape. Students will be able to name and describe each phase of the moon.

DAILY TASK

Poster:

After reading the text, students will use the information from the text to create a poster that illustrates and describes, in proper sequence, the nine phases of the moon.

Writing Task:

After creating their posters, students will explain, in writing, why the shape of the moon appears to change.

Have a few students present their posters to their classmates and respond to questions and/or comments from their peers.

EXEMPLAR STUDENT RESPONSE

In small groups or pairs, the students will create a poster in the following sequence:

- **New moon:** The new moon looks dark because there is no reflected light.
- **Crescent moon:** This phase happens soon after the new moon occurs. As the moon begins to move, a small bit of sunlight reflects on the moon.
- **First-quarter moon:** The moon is ¼ of its cycle around Earth. The one half of the moon reflects the sun's light.
- **Gibbous moon:** The moon is approaching the full moon phase, so it is waxing larger than the first-quarter moon.

- **Full moon:** This phase occurs about 2 weeks after the new moon. The whole moon is visible from the reflected light.
- **Gibbous moon:** Because the moon is leaving the full moon phase, the moon is waning, or appears to be growing smaller.
- **Last-quarter moon:** As the moon moves out of the gibbous phase, it continues waning smaller. Once again, the moon reflects ½ of the sun's light. This moon is sometimes called a half moon.
- **Crescent moon:** This moon phase is the next to last stage of the cycle. The moon is waning so that only a small portion is visible.
- **New moon:** The cycle has completed, and the moon has made one full rotation around Earth. Once again, the moon is dark.

The moon rotates around Earth. Sunlight reflects on the moon causing part of the moon to look bright. As the moon moves, the amount of sunlight we see reflected on the moon changes causing the different phases. The different phases make the moon seem to change, but it does not change shape at all.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
	A *cycle* is a series of events that occurs regularly or repeatedly in a pattern. A *phase* is an individual part or point in a cycle. Although the moon's shape doesn't really change, the moon has phases in which it does seem to change. According to the text, what makes these phases occur?	The positions of Earth, moon, and sun determine the different amounts of light we see from the moon. Because of the different amounts of light reflected on the moon, the moon seems to have different shapes creating the phases.
	During this read-through, read about each phase of the moon and have a trio of students act out the positions of the moon, Earth, and sun. *If possible, have the sun hold a flashlight. Have the moon hold a small ball.* *Have other students work as a class to color or draw a diagram of the phase of the moon. For each phase, ask question such as the following:* What do you notice? Which part of the moon can we see lit-up from Earth?	

	When does the moon look like this to us? What would we draw in a diagram to represent this phase of the moon? What is the name of this moon phase?	
	Using the information learned from the text, explain the difference in a *waxing moon* and *a waning moon*. Thinking about this information, what might the terms *waxing* and *waning* mean?	In a waxing moon, we see more light reflected on the moon so it seems to be growing larger. A waning moon is opposite the waxing moon. In a waning moon, we see less light so the moon looks as if it is growing smaller.
	The illustrations in the text show us that some of the moon's phases repeat themselves. Using the illustrations and the text, explain what differences exist between the two *gibbous* moons. How are the two *crescent* moons different?	The first gibbous moon seems to be growing larger when it is waxing and moving into the next phase, the full moon. The other gibbous moon phase follows the full moon. It seems to be getting smaller in its waning stage.
	Does the moon actually change shape?	No, the moon doesn't change shape at all. The moon looks different at different times because of the amount of light from the sun we can see reflected off of the moon.
	How long does it take the moon to go through its entire set of phases? About how long is one month? Do we need to re-draw the new moon?	It takes the moon about one month to go through its entire set of phases. That is about 30 days. We do not need to re-draw the new moon because we can just start back at the beginning of the phases.

DAY 6: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *If You Decide to Go to the Moon* by Faith McNulty **Iteration:** First Read **Instructional Strategy:** Read Aloud

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
690L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
This is a narrative fiction text with nonfiction information whose text structure is moderately complex.	Language features are very complex, with figurative language used throughout the text. Tier 2 and 3 words are woven throughout the narrative.
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The purpose of this text is for the reader to understand the differences between Earth and the moon by situating the reader as an astronaut experiencing life on Earth, in a spaceship, and on the moon.	Knowledge demands are moderately to very complex. Readers will need to have some background knowledge about space, the moon, Earth, gravity, and the lunar landing.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
During this read-through students will gain an understanding of the aspects of Earth and of the moon that make it unique and special. This will set them up to compare and contrast the moon and Earth during the next read-through.

DAILY TASK
Answer the following questions in writing: How does the character in the story feel about Earth at the end of the story? Why does he feel this way? Be sure to use evidence and facts from the text in your response.

EXEMPLAR STUDENT RESPONSE
At the end of the story, the character feels happy to be back on Earth. He knows Earth is a special place because there is air and water. He knows Earth is wonderful because it is beautiful. Earth is also home to lots of different animals and plants. There are many different types of weather and places on Earth. These special things about Earth make the character feel happy to be back home.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 2	What is the author going to tell us in this narrative? What is an "astronaut"?	The author will tell us what you will need to go to the moon, how to get there, what to do after you land, and how to get home. An astronaut is someone who rides in a rocket ship to go into outer space. *(If this information is new, refer to the space suit and refer to pictures of him on the moon.)*
Page 4	What is a "hatch"? (*Provide the definition if students need support.*)	A hatch is something you walk through and close in order to take off in a rocket ship.
Page 19	Based on what you have read in the text or see in the pictures, what is gravity?	I see that the boy is having trouble drinking his orange juice and playing cards because there is no gravity. Based on what I see and have read, gravity is a force that keep us standing on the ground rather than floating away.
Page 23	What do you notice about the illustration in the boy's thought bubble?	The boy wants something that he can relate from his life on Earth. The cows are

		standing on land and there is gravity.
Page 28	How does the character feel when he sees the spaceship?	The boy is reminded of home when sees the spaceship and is ready to return to Earth.
Page 29	Based on the text, what are some things on Earth that are not on the moon? How does the narrator feel about the sights and sounds? What words in the text give you a clue about how the narrator feels?	Continents, oceans, clouds, rain, wind, fish, animals, plants, weather, desert, forests etc. The narrator likes the things because he uses words like marvelous, beautiful and wonderful.
Last page	Why does the character bend down to kiss the ground? How does the character feel about Earth now? How do you know?	He bends down to kiss Earth because he is so happy to be back on Earth. I know this because at the end he decides he will always do his best to protect the beautiful Earth.

DAY 7: QUESTION SEQUENCE AND DAILY TASK

TEXT

Text: *If You Decide to Go to the Moon* by Faith McNulty

Iteration: Second Read

Instructional Strategy: Read Aloud

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH

The moon and Earth have very different physical properties.

- Life in space is very different than life on Earth.
- Space is vast and has objects like stars, meteors, comets, and craters.
- Ask: How does the moon shine?
- There is no daytime, nighttime, or gravity in space.
- The moon has physical properties different than Earth's properties. There is no life on the moon.
- Without air, there is no sound.

DAILY TASK

T-Chart:

Students and the teacher will work together to create a T-Chart to compare key details about the moon and Earth. Students will use sticky notes to add details from the about the moon and Earth to the collaborative T-Chart.

Writing Task:

Next, students will work independently to describe how the moon and Earth are different. Students should include at least two details from the text about the moon and two details from the text about Earth.

Remind students to name their topic, supply facts about the topic, and provide a sense of closure.

EXEMPLAR STUDENT RESPONSE

Writing Task:

The moon is very different form Earth. The moon is covered with gray dust and craters. There is no life on the moon, and things are very still. It is very dark, and there are a lot of hills. Earth has animals and plants. There is air to breathe and water to drink. These are some of the ways the moon is different from Earth.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 2	What does the author say you will need when going to the moon?	The author says that you need a space suit, air tanks, books, games, and food.
Page 4	Turn and tell your partner why you think the author wrote the words on this page this way.	The author wrote the words this way to show the countdown to the big blast off into space.
Page 8-9	Turn to and talk to your partner. Use the illustrations and the text to describe what space looks like.	Space is dark, floating, empty, shining stars, etc.
Page 10	How does it *feel* in space?	Space must feel amazingly light. I would float like a feather and be weightless, but there is no wind.
Page 17	What would you see on the moon?	I think we would see boulders, craters, and silvery gray dust.
Page 18	Once you land on the moon, why might you be disappointed?	There is nothing there, and it's very dark. Because there is no life, I wouldn't meet any new friends or animals.
Page 19-20	Tell your partner what the author says you should NOT do on the moon and why.	Do not take off your space suit. You will sizzle or freeze without your suit, because it is blistering hot in the light or instantly cold in a shadow.
Page 24-25	What are some ways the author describes the moon? Use the text and illustrations to justify your answer.	The author says there is "blackness in space." The author describes the moon as "lifeless and still." Finally, the illustration on page 25 shows how the "hills stretch on and on."
	Go to the foldout pages. How does the author use words and illustrations to describe Earth?	The author uses these big pages to show there is so much life on Earth. *Students may provide a wide variety of responses, including:* • Animals and people live there.

		• There is water. • There are oceans. • There is ice. • There are green forests and grassy plains. Earth has air and water which provides life for living things
	Let's think about what we just read. Could you really follow this author's instructions to go to the moon? (*Wait for an answer.*) Why not? Think back to the last book we read, *The Moon Book*. Why do you think the author wrote this book differently?	No…because to be an astronaut you have to be an adult and go to space school. The author wrote the book this way to get us to use our imaginations to see what the moon is like. The author also wants to make us think about whether we might want to be an astronaut when we grow up.

DAY 8: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *The Moon Seems to Change* by Franklin M. Branley **Iteration:** First Read **Instructional Strategy:** Read Aloud

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
470L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The text structure is slightly complex. The text explores the phases of the moon. The notion that the moon *seems* to change but in reality, goes through phases is explicitly explained. The structure of the text is chronological. The pictures are rather critical to understanding the text, but only to aid conceptual understanding of the moon's phases, not because the text structure itself is overly complex.	The language features are slightly complex. Language is conventional and vocabulary (crescent, first-quarter moon, waxing, waning) is clearly defined in the text. Sentence structure is short and simple.
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The purpose of the text is slightly complex. The purpose, to understand the phases of the moon – and how the moon does not really change form, but goes through phases based on its movements – is clear and narrowly focused.	The knowledge demands for this text are slightly complex. The text relies on the reader's common experience of looking at the night sky – which would only be outside young children's experience if they have never/rarely stayed up past dark. The text also includes an idea for an experiment using simple, everyday items to demonstrate the phases of the moon. There are no references to outside texts or theories about the moon.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
The moon has predictable and observable phases that impact life on Earth.

DAILY TASK
Speaking Task: Students will be given a copy of pages 20-26, a flashlight, and a smaller ball on a stick. They will work in a group to prepare and deliver a short demonstration of how the moon seems to change based on the location of the sun, moon, and Earth. Model the daily task (simulation of the phases of the moon) with two students before pairs complete it. **Writing Task:** Following the demonstration, have students create a brochure with information about the phases of the moon. Review the format of a brochure if needed.

EXEMPLAR STUDENT RESPONSE
The following information may be included in the brochure, in addition to illustrations: • The moon doesn't actually change shape or go away. It just looks that way. • The moon has nine phases in about one month. • A waxing moon seems to be growing. • A waning moon seems to be shrinking. • The dark part of the moon is a result of the shadow created by the positions of the sun, moon, and Earth. • The bright part of the sun is created by the moon reflecting the sun's light. • The moon appears to change shape because we see different amounts of the lit part as the moon orbits Earth.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 7	The author says, "The moon seems to change." Why does the author say "*seems* to change?"	The moon doesn't actually change shape or go away. It just looks that way.
Page 8-9	Now we know what actually happens as the "moon seems to change." Turn and	Students turn and tell their partner that the moon seems to change because it

	tell your partner what really happens to make the moon appear to be different.	goes around Earth. Earth casts a shadow on the moon during some phases.
Page 10-11	Using the illustrations and text, tell your partner new information that you have learned about how long days are on Earth and the moon. *If necessary:* So, it takes about four weeks for the moon to go around Earth. We know from our calendar that four weeks is about one month. Now we're going to read in detail about what happens to the moon in about one month, during each of its phases. Remember from *The Moon Book* and your posters – how many phases does the moon have?	Students will turn and tell their partner that 1 day on Earth is 24 hours long, a day on the moon is about a month long, and it takes the moon about 4 weeks to revolve around Earth. The moon has nine phases in about one month.
Page 14	What does the author say a waxing moon seems to be doing?	A waxing moon seems to be growing.
Page 17	What does the author say a waning moon seems to be doing?	A waning moon seems to be shrinking.
Page 19	Look at the chart at the bottom of page 19. What does the black part of each moon represent? What does the white part of each moon represent?	The black part represents the shadow created by the position of the sun, moon, and Earth. The white part represents the part of the moon reflecting the sun's light.
Page 27	Are we able to see all sides of the moon from Earth?	No, we only see the same half. We never see the other side of the moon.
Page 28	Why does the author say the moon seems to change?	It goes through phases because it goes around Earth.
	Which phase of the moon do you think you will see tonight? Tomorrow I will ask you. If you're not able to stay up that late, I will take a picture and we can look at it together tomorrow.	*Students name/predict one of the nine phases of the moon, referring to their posters or the text as necessary.*

DAY 9: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *Papa, Please Get the Moon for Me* by Eric Carle **Iteration:** First Read **Instructional Strategy:** Shared Reading

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
AD 450L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The structure is slightly complex, as it contains simple sentences. Fold-out illustrations are key for the readers to understand the text.	Language features are moderately complex. Some Tier 2 vocabulary is used (e.g., reappear, sliver). Dialogue changes perspective and adds some complexity that could be challenging for students to follow.
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The story has more than one level of meaning that is moderately to very complex. Monica understands that her father would do anything for her, including get the moon for her. Additionally, the reader gains information about the changing moon.	The knowledge demands are slightly to moderately complex; the reader needs to understand the difference in realistic stories and fantasy stories. The reader needs to understand that you can't actually "play with the moon" and that someone cannot go fetch the moon from the sky. Finally, the reader must understand that the moon appears to change over time.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
The moon does not actually go away or change. There are phases of the moon (waxing and waning).

DAILY TASK
Writing Task: Students will use pages 28 & 29 from *The Moon Seems to Change* to label the phases of the moon that Monica observes on pages 11-12, 15-16, 18, & 20-24. Then, they can write a short note to Monica explaining that the moon only seems to change, but actually goes through phases.

EXEMPLAR STUDENT RESPONSE
Writing Task: Dear Monica, The moon doesn't actually get smaller. It goes through phases that make it look smaller when it is waning and larger when it is waxing. This is because of the movement and positions of Earth, the sun, and the moon. The moon is a celestial body that we need, so it must stay in the sky. Your friend, _____

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 2	What does Monica want? What words tell you she wants that?	Monica wants to play with the moon. She said she "wish[ed]" and she "reached" for it.
Page 3	Why can't Monica touch the moon? Think back to the other books we've read about the moon.	Even though the moon is our closest neighbor, it is still very far away – over 200,000 miles.
Page 5-8	The author uses one word several different times. What word does he use and why?	The author uses the word "very" several times and even underlines it to give emphasis to the word.
Page 11-12	What does the moon tell Papa about taking it down? Why do you think the author uses this pull-out illustration?	Every night I get smaller. When I am just the right size, you can take me with you. The author uses this illustration to show how big the moon is.

Page 17-18	What happens to the moon as Monica plays with it? Why does the moon get smaller and smaller and then disappear? How do you think Monica felt when the moon seemed to disappear? What in the illustration makes you think that?	It grows smaller and smaller and then disappears. The moon gets smaller and smaller and then disappears because of the phases of the moon. It doesn't really disappear, it just seems to get smaller because of the shadow of Earth and the amount of sunlight the moon reflects. The moon is waning. Monica felt disappointed. Her face looks sad.
	Then what happens to the moon? How do you think Monica feels now? So, is this a story or an informational text? How does it compare to other stories or informational/non-fiction texts we've read about Earth and the moon?	It is getting bigger – it is a waxing moon. Monica is happy/glad that the moon is reappearing. We know it's a story because a girl's father couldn't really get the moon for her. However, it also shows the phases of the moon like some of the other texts we've read.

DAY 10: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *Moon Rooster* by David and Phillis Gershator **Iteration:** First Read **Strategy:** Read Aloud

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
590L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The text structure of this narrative story is very complex. There are thought bubbles, colored text, and labels which, combined with the illustrations, are essential to understanding of the text.	The language features in this text are very complex. There is irony and old-fashioned language, as well as other unfamiliar language (e.g., insomniac, self-respecting).
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The meaning of this text is very complex. Moon Rooster believes his cock-a-doodle-doing brings up the moon; this and other subtleties are revealed as the text progresses.	Knowledge demands are moderately to very complex, with some cultural references, such as that roosters have traditionally served as an alarm clock at sunrise. This text could be used as a fun introduction to the phases of the moon.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
The moon appears to change over time. The phasing of the moon is cyclical and creates a predictable pattern. Sometimes we need our friends to believe in us and help us, so we can believe in ourselves.

DAILY TASK
Writing Task: Write, using complete sentences, in response to the following question: Why does Moon Rooster think his crowing brings up the moon? Use evidence from the story to explain your answer, and be sure to describe the rooster's actions, thoughts, and feelings. Make sure you introduce your topic, include facts from the text, and have a closing statement. You may also draw a picture to help show what the rooster thinks happens to the moon when he crows.

EXEMPLAR STUDENT RESPONSE
Writing Task: Three Sample Responses • When Rooster crows loud, the moon gets bigger. When he stops crowing, the moon goes away. When he starts to crow again, the moon comes back. Moon Rooster thinks he is making the moon rise and change. • The moon rooster thinks his crowing makes the moon. If he crows louder, the moon is bigger when it rises. When he takes a break from crowing, the moon doesn't rise at all. Even his friends think he can do it! • Rooster thinks that the louder he crows, the bigger he makes the moon when it rises. He first crows normally. Then he crows loud. When he is scared, he barely crows at all, and the moon is tiny. His friends help him be brave, and the moon is big again.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 1	*Read aloud the entire book with minimal interruptions. Stop to provide word meanings or clarify only when you know the majority of your students will be confused. Make sure that the students can enjoy the illustrations.* Sing the song at the end several times until students develop some fluency. Encourage them to have fun and sound and look like a rooster with the "cock-a-doodle-doo".	The goal here is for students to enjoy the book, both writing and pictures, and to experience it as a whole. This will give them some context and sense of completion before they dive into examining the parts of the book more carefully. The song will also provide some context for roosters and their sounds. Add movements for parts of the song or let children come up with them. For example, putting arms up for "up comes the moon" and flapping arms for "Flap your wings and cock-a-doo-dle-doo."

Page 3-6	What do the illustrations show? Now let's read the labels to these dreams. (*Reread the labels*.) Labels in text help you, the reader, figure out what the author is trying to tell you. What is each rooster dreaming about? How is what is over Moon Rooster's head different than the others? Why do you think it is different? What does the rooster have to do to bring up the moon? Look at the labels on pages 3 and 4. What do these labels tell us? The phrase "lo and behold" is a phrase that you might say when you tell someone about something surprising that happened. What is the rooster surprised about? What does "crowed" mean? How do we know?	The illustrations show roosters dreaming. The first one is dreaming about cars, second one about being in love, the third one has no dreams, and the fourth one about winning a trophy. Moon Rooster has only one word, "Dreams?" with a question mark over his head. Because he can't sleep, he doesn't have dreams. To bring up the moon, the rooster has to make the sound "cock-a-doodle-doo." The labels are Ed, Ned, Moon Rooster and Fred. These are their names. Zzzzzzzzz is the other label. The author is telling us that they are sleeping. He is surprised that his crowing made the moon appear. Crowed is another way of saying the sound a rooster makes. We know this because on page 9, it says, "Moon Rooster crowed early/late/all night long" and below there is silver writing coming from Moon Rooster's mouth saying, "Cock-a-doodle-doo."
Page 7	What does the rooster think he can "doodle do?" What do the hens say to the rooster? What do they compare the moon to?	He thinks he can bring up the moon. The hens say: "What you can do! What a voice! What a moon! It looks like a

	Why do you think they use these words to describe the moon?	freshly laid egg!" They compare the moon to a freshly laid egg. They use these words because they are hens, and hens lay eggs.
Page 8	How did Moon Rooster feel about himself after using his voice to bring up the moon? What does the author tell us about his look that helps us know? Please stand up. Listen as I re-read those words. Show me with your body what the Moon Rooster looks like when he is proud of what he can do.	Moon Rooster was proud of himself. The author describes Moon Rooster with his "chest puffed out and his crown stuck up so bold and red, he was truly king of the hill." Students should stand with a proud posture, up straight with their chest pushed forward. They might put their hands on their hips and shoulders back.
Page 9-10	Look at the labels on page 9 and 10. What do you notice? What information is the author trying to tell us?	Cock-a-doodle-doo is repeated a number of times, in bigger and bigger print. The author is telling us that rooster is determined to bring up the moon by crowing early, late, and all night long.
	Appreciation means an expression of gratitude or thanks. Rooster says that the people showed they were thankful for what moon rooster was doing. How did the people show they were thankful? What "gifts" did they throw? Now, let's read the words in silver near the arms of the people on page 11 and 12 throwing "gifts.". How do you know that these silver words tell us what the people are saying? How does the author show us that these words are being yelled? Moon Rooster says that the people were giving him gifts to show their appreciation. What evidence do you see that this is *not* what they intended to do? Why do you think they threw things?	They threw gifts his way to show they were thankful. They threw shoes, pots and pans, clocks, rubber balls, and a bat. "Keep quiet!" "We can't sleep!" "Shush!" We know that people are saying these words because they are in quotation marks. (Note: Briefly introduce quotation and exclamation marks in context if these are new to students.) The sentences end in exclamation marks. The author says the people showed their appreciation by throwing gifts, but the illustrator has drawn things that are not usually given as gifts (like a single boot!), and the words written in silver show that the people were yelling at Rooster and telling him to be quiet. So, the people were really just throwing things to try to get the rooster to be quiet. Plus, people don't usually throw gifts.

Page 13	The moon rooster refers to himself as a "self-respecting rooster." Who does "self" refer to? Do you know what "respect" means? As I read, listen for ways that showed that the rooster was self-respecting or showed honor to himself. Let's see if you understand what "self-respecting" means. I am going to give you some examples of things that you might do. Tell me whether you think each thing is "self-respecting" by saying "That is self-respecting" or "That is not self-respecting."	"Self" refers to the rooster. Respect means to give honor. If you respect someone, you appreciate them. He showed honor to himself by not pecking at rubber balls, and not eating leather or metal. • You keep your room neat and tidy. (That is self-respecting.) • You take care of your school supplies. (That is self-respecting.) • You use your scissors to cut a hole in your shirt. (That is not self-respecting.)
Page 14	On page 14, Moon Rooster is labeled grateful, which means thankful. Page 14 also tells us that Moon Rooster is a "well-bred fowl," which is another way of saying he is a bird (fowl) that was brought up to have good manners and be well-behaved. Listen carefully as I reread the words on this page. What did the "well-bred fowl" do because he was grateful? Why did he do this?	He "thanked the folks for their gifts, silly or not." Moon Rooster is "well bred" and uses his manners. Someone who uses good manners will thank someone for a gift, even if they didn't like it.

DAY 11: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *Moon Rooster* by David and Phillis Gershator **Iteration:** Second Read **Instructional Strategy:** Read Aloud

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
590L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The text structure of this narrative story is very complex. There are thought bubbles, colored text, and labels which, combined with the illustrations, are essential to understanding of the text.	The language features in this text are very complex. There is irony and old-fashioned language, as well as other unfamiliar language (e.g., insomniac, self-respecting).
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The meaning of this text is very complex. Moon Rooster believes his cock-a-doodle-doing brings up the moon; this and other subtleties are revealed as the text progresses.	Knowledge demands are moderately to very complex, with some cultural references, such as that roosters have traditionally served as an alarm clock at sunrise. This text could be used as a fun introduction to the phases of the moon.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
The moon appears to change over time. The phasing of the moon is cyclical and creates a predictable pattern. Sometimes we need our friends to believe in us and help us, so we can believe in ourselves.

DAILY TASK
Writing Task: Using the notes we've taken and the chart we completed, create a brochure that shows Moon Rooster with each phase of the moon from the story. Make sure to include several complete sentences that name the topic (the phases of the moon), supply some facts about the topic, and give your work a closing. Use drawings to illustrate your brochure.

EXEMPLAR STUDENT RESPONSE
Writing Task: Student responses will vary, as will their drawings. They may have some sentences in the brochure similar to these: • Moon Rooster crows and a sliver of a moon appears. The louder he crows, the bigger the moon becomes. When he crows early and late and all night long, it is the full moon. When he can't crow, it does not appear. Then he crows seven times, and a little moon appears again.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 1	*Today we are going to take special notice of the silver writing word labels next to the illustrations. They will help us understand more about the story. Today we are also paying special attention to the ROOSTER.* What was this rooster's problem? Let's try to figure out the word label used to describe this picture. If we chunk the word, we will be able to pronounce it. An insomniac is someone who cannot sleep. Why did the illustrator label this rooster "insomniac?"	He "couldn't sleep." The illustrator labeled the rooster as insomniac because he couldn't sleep, and an insomniac is someone who cannot sleep.
	Review from Day 1, then do the activity. Activity: Locate and act out the quotations on the right to guide students in retelling and reviewing key parts of the story.	Page 11: "Keep quiet!" – people on the hillside Page 12: "We can't sleep!" "Shush!" – people on the hillside

	1. Add each quotation to a chart as you introduce it. Ask students to help you note who the writing is next to and on what page it appears. 2. Have students act like each person/animal as you point to the quotations on the chart. Refer to the illustrations in the book as reminders for students. You might draw pictures of people and a rooster next to the quotations as well. These marks "____" around a word or sentence are called quotation marks. What do quotation marks tell us?	Page 13: "No one ever threw me a gift." – Ed Page 15: "Come take my hand." –party people Page 17: "Rooster Soup, yum!" "Get that rooster!" –party people Page 18: "Yikes" – Moon Rooster Quotation marks tell us when someone is talking or what they are thinking.
Page 19-25	What is the rooster whispering? Use what you know about quotation marks to find it in the text. Turn and talk to a partner about these questions: What happened to the moon on this page? Why does Rooster think this happened? *(Teacher Note: This is an opportunity for students to begin to explore the cause and effect relationship from the Rooster's perspective. Avoid discussing this relationship in depth at this point. Students will analyze this more carefully, using evidence gathered from the text later on.)*	The rooster is whispering: "Cock-a-doodle-doo. Goodnight, sun. Goodnight, people." The moon got smaller and smaller and then disappeared. Moon Rooster thinks it's because the sun roosters chased the moon away. And the people chase him to catch him to make soup, so he doesn't crow. Because he doesn't crow – or just whispers his "cock-a-doodle-doo" – he thinks the moon is sad and doesn't come out.
Page 21	"Admit" means to confess to be true. How has the rooster changed since the beginning of the story?	At first, he was proud and loud, boasting, or bragging, about what he could do. Now he is frightened, afraid and whispering. He admits he needs help.
Page 23	Read the labels together. Why does it say, "Moon Rooster is brave?"	His friends helped him and the moon rise again. He had a job to do, and he did it,

<table>
<tr><td></td><td></td><td>even though he was scared, with the help of his friends.</td></tr>
<tr><td>Page 25</td><td>What does the illustrator show Moon Rooster doing in his dream?

What about those dark and quiet nights each month? According to this book, why can we not always see the moon?

What about the sleepy people on the hill? How are they feeling on those dark and quiet nights?</td><td>Moon rooster is playing the guitar in his dream.

Moon Rooster and his friends do such a good job, they deserve a rest – and so does the moon.

Some still want chicken soup, some got earplugs. They know someone has to bring up the moon.</td></tr>
<tr><td></td><td>I'm going to leaf through each page of the book from the beginning. Help me find the places in the book where the Moon Rooster crows. When you notice a part of the story where Rooster is crowing, open and close your thumb and index finger together like Rooster's beak when he is crowing. Then, we will reread that page and write down what Rooster said and did. We will also draw a picture of how the moon looked after Rooster crowed on our chart.

Lead students through the process of collecting evidence from the text to create a chart like the one on the right.

Acknowledge any patterns the students observe, but do not discuss these patterns yet.</td><td><table>
<tr><th>Page(s)</th><th>What Moon Rooster Did</th><th>How the moon looked</th></tr>
<tr><td>5-6</td><td>"cocka doodledoo" "cocka doodledoo"</td><td></td></tr>
<tr><td>7</td><td>Crowed louder "cockadoodledo"</td><td></td></tr>
<tr><td>12</td><td>Crowed early, late, all night long. Proudly and loudly. Cockadoodledo- louder each time (4 times)</td><td></td></tr>
<tr><td>15-16</td><td>Lo and behold and cockadoodledo</td><td></td></tr>
<tr><td>20-22</td><td>Whispered "Cockadoodledo" croaked, couldn't crow</td><td></td></tr>
<tr><td>24</td><td>7 times "cockadoodledo"</td><td></td></tr>
</table></td></tr>
<tr><td></td><td>Ask students if they notice any patterns on the chart.

Have them turn and talk to a partner and ask: Why does Moon Rooster think his crowing brings up the moon?

Call on select students to share responses with the full group; help students to practice pointing out supporting</td><td>The moon gets bigger when Moon Rooster crows and gets smaller or doesn't appear at all when he stops. So, the rooster thinks his crowing controls the moon.</td></tr>
</table>

	evidence on the chart when explaining their thinking to the class.	

DAY 12: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *My Stars* by Dina Anastasio **Iteration:** First Read *(The teacher should read the poem through one time for continuity, then use the question sequence on the second read-through.)* **Instructional Strategy:** Shared Reading

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
550L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The structure of the text is moderately complex; it is a narrative poem about a girl viewing the night sky, with some informational text woven in. There are artistic elements, with rhythm and rhyme scheme.	The language features are moderately to very complex. There are several instances of figurative language (e.g., "my roof of stars," and "I see a bull and a dog up there," referring to constellations). There is visual imagery and references to things we see and don't see.
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The meaning of the book is moderately complex; it may be difficult for some students because of the lyric structure and multiple levels of meaning.	Knowledge demands in this poem are slightly complex. Students need to have some knowledge of space, night and day, sun and stars, and the role of our sun to be able to fully understand the text.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
Stars, including our sun, have a pattern of appearing and disappearing in either the day or night sky. We have tools that can help us see stars and the shapes they make.

DAILY TASK
Writing Task: After reading, write a paragraph explaining why stars, including our sun, seem to disappear. Be sure to introduce your topic, use details and facts from the text, and provide a concluding statement. When you are done with your first draft, read your writing to a peer. Work with your peer to revise your writing by adding more details or correcting information. Rewrite your second draft on a new piece of paper.

EXEMPLAR STUDENT RESPONSE
Writing Task: Stars, including our sun, seem to disappear at night. The stars seem to disappear when the sun is out, because the sun's light is so bright. The sun seems to disappear because Earth rotates, and we cannot see the sun when the part of Earth we are on turns away from the sun. Even when we cannot see the sun or the stars, they are still there. We will be able to see the sun every day, and we will be able to see the stars every night.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 1	Look at this word, *twinkling*. What does twinkling mean? How can we figure it out? Do stars really twinkle? How many of you know the song, "Twinkle, Twinkle, Little Star?" Let's sing it together! (*Sing it through several times*.) Now, let's look at the words that end the sentences on this first page. What do you notice about them? So, this is a special kind of story, isn't it? What do we usually call texts that have rhyming words at the end? They sort of sound like a song, don't they?	It means to blink on an off. It means to sparkle. We know because it says, "like a diamond in the sky!" Diamonds are sparkly and twinkly. Stars look like that because they are so far away, not because they are really twinkling. The ending words rhyme. It is a poem.
Page 4	The author describes the stars as "my roof" right here. Why does she compare them to a roof? What do we call it when an author compares things this way? Anyone know?	Because they are above our heads. This is called a metaphor.

	It's an analogy, a special kind called what? That's right, a metaphor is a comparison that does not use *like* or *as*. What do we call a comparison that does use *like* or *as?* *Sing "Twinkle Twinkle" again to reinforce the simile.* Look at this chart on page 4. What is the name of our closest star in the night sky? Let's say it together. Prox-i-ma Cen-taur-i. Is it closer to us than the sun, or farther away?	A comparison that uses *like* or *as* is a simile. It is farther away from us than the sun.
Page 5	Look at the first line here on page 5. Poems often have repeated words in them. What is this word that is repeated in this line? Say it after me: Be-yond. What does *beyond* mean? Why do you think the author repeats the word *beyond*? Look at the word *continue*…based on what we've been talking about, what do you think *continue* means? What pictures do the words *beyond* and *continue* make in your mind? What is the girl holding in this picture on page 5? What is it used for? Why is it needed? How is the girl using a telescope connected to the words *beyond* and *continue* that we just talked about? Stars often make shapes, or patterns in the night sky. What is that picture or pattern called when stars are grouped together or spread out in certain ways? Yes, patterns of stars are called *constellations*. Are patterns random, or are they predictable?	Beyond means it goes on past. It means it is farther. She repeats the word beyond because the stars are so far away. Continue means not stopping; something that goes on forever. In my mind, it makes a picture of something that goes on for a long time. The girl is holding something to help her see the stars. It's a telescope, and she needs it to be able to see the far away stars. It is connected to the words, because they mean far away and going on and on. That's why she needs the telescope. When stars are grouped together or spread out in certain ways, they form a constellation. A pattern is something that is always there. They are predictable.

	Do we always need a telescope to see patterns that stars make in the sky?	No, we don't always need a telescope, because some of the pictures the stars make we can see just by looking.
	What does the text say that the girl can see in the stars?	She can see a crab, the big dipper, a snake, a bear, a bull, and a dog.
	Does she really see these animals?	No, she sees constellations that look like them.
	So, she sees *constellations* that are in the shape of the animals, right? There is that word again…what did we say that a *constellation* is?	Constellations are pictures or patterns made by stars.
	Let's read the last two lines again together.	
	She calls the group of stars her friends and says that they come and go. What does that tell us about the stars?	When she calls the stars her friends, it tells us that she looks at them often and knows them. It also tells us that they don't disappear. They always come back, like friends do. Also, it tells us that the stars are dependable, like friends. We can count on them to be there at night.
	So, what I hear you saying is that the stars have a pattern of appearing at night and disappearing in the morning. Can we predict whether the stars will be there night after night? How do we know what they will?	Yes, we can predict that the stars will be there. We know this because it is a pattern that happens every night.
Page 7	On this page, the girl makes a shift from talking about the stars in the night sky to talking about what other star?	She shifts to talk about our sun.
	She calls it a *star* – is our sun a star? Where in the text did we hear that before?	Yes, the sun is a star. The book says it is our closest star on page 4 in the chart.
	Can anybody tell me another name for our sun that is not in the text? Since the sun is a star that is visible during the day, it is called the….?	It is called the daystar!
	Do you have to have a telescope to see the sun?	(*Students answer yes or no.*)
	Is it a good idea to look directly at the sun? Why not? What happened recently	No, it's not a good idea because it is so bright that it can hurt our eyes. We were

	that reminded us of that? What did we need for that event? What does *massive* mean? Not just big, but what? Yes! So, who can describe our sun using some of these words?	reminded of this during the eclipse when we needed special glasses to protect our eyes. Massive means big. Giant! Huge! Our sun is a giant yellow mass of gas.
Page 8	On this page, it says that our sun seems to go away at night. Does it really? What do we know about what happens that makes our sun seem to go away? So, what you are telling me is that as Earth rotates, the patterns of day and night happen. When it is day time, we can't see the stars, but when night comes, we can see the stars again. Do we have to have a telescope to see these patterns?	No, we know that the sun doesn't really move. Earth moves as it rotates on its axis, so when one side of Earth is facing the sun, it is daytime. At the same time, the other side of Earth is facing away from the sun, and it is nighttime. The sun seems to go away at nighttime since the sun is on the other side of Earth. Yes! No, we don't need a telescope, because they happen every day and night right before our eyes.
	Finally, we see the sun described as being *overhead*. What two words do you hear in that compound word? How is that similar to how the stars are described earlier in the poem?	The two words in overhead are *over* and *head*. The stars are described as "my roof," because they are way up over the girl's head.

DAY 13: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *Sunshine Makes the Seasons* by Franklyn M. Branley **Iteration:** First Read *(The teacher may choose to spread the question sequence over two days.)* **Instructional Strategy:** Read Aloud

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
510L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The text structure is moderately complex, written in a narrative format with information about the seasons. The order is logical, from days to seasons, but switches a few times from concepts and illustrations of Earth and sun, to hands-on activities. Sidebars and diagrams may be challenging for younger students; however, illustrations supplement the text in developing conceptual understanding.	The language features are moderately complex. There is some content-specific vocabulary crucial for student comprehension that must be explicitly taught (*axis, equator, poles,* and *tilt)*. Primarily simple sentence structure is used to describe abstract concepts.
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
Teacher intervention will be necessary to develop understanding of the concepts introduced (i.e., Earth's rotation and tilt of its axis during each season).	Basic prior knowledge about the seasons and common weather patterns within those seasons will be necessary for comprehension.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
The sun shines down on us, giving warmth and light. The sun also makes the seasons. As Earth makes one complete rotation around the sun every year, the seasons on Earth change—from winter to spring to summer to fall and back to winter again. Students will find out how the light from the sun affects life on Earth for all

living things as they look at this star in our solar system.

DAILY TASK

Activity:

Students will do an experiment with an orange as the teacher reads and models the steps, which show the reasons for the seasonal changes by using concrete objects (see book for details: pages 12-26).

Writing Task:

Following the experiment, write a paragraph about how the sun affects life on Earth. Be sure to introduce your topic, provide facts and details form the text, and write a concluding statement.

EXEMPLAR STUDENT RESPONSE

Writing Task:

The light from the sun affects life on Earth for all living things. The sun shines down on us, giving warmth and light. If the sun stopped shining, all living things would freeze because Earth would get too cold. The sun also makes the seasons. Because Earth is tilted in its axis, the seasons on Earth change from winter to spring to summer to fall and back to winter again. When the northern hemisphere of Earth is experiencing summer, the southern hemisphere is experiencing winter. These are just some of the ways the sun affects life on Earth.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 6	Remember when we read *What Makes Day and Night,* I told you we would be looking at how the sun makes not only day and night, but the seasons? We're going to read a new book about that today. What would happen if the sun stopped shining? Why? Does the sun shine all year long?	If the sun stopped shining, we would freeze because our Earth would get too cold. Yes, the sun shines all year long. It just gets warmer in the summer than winter because there is more sunshine then.
Page 7-8	What does the phrase "Earth spins around" mean? How often does Earth do this, and what happens when it spins around?	This phrase means that Earth rotates. Daylight happens on the sunny side (side facing the sun) and when Earth rotates, we turn away from the sun and we get sunset and then nighttime. It rotates once in 24 hours.

Page 9-10	Why is cold and dark in the winter time? Why is it warmer in the summer? Look at this picture on page 10. What do you notice about this girl going to bed in the summertime?	During a year on Earth, the length of our day changes. In the winter, the days are shorter and we don't get many hours of sunshine. The days in the summer time are longer and it is warmer because we get more hours of sunshine. It is still light and hot outside at bedtime in the summer.
Page 11	How often has Earth been rotating throughout the year? What has been happening during this time?	It has been rotating once every 24 hours, giving us day and night. The seasons have been changing.
Page 12-26	*The students will do the experiment to see how the reasons the seasons change by using an orange for Earth, a pencil, and a flashlight. They will do this activity with a partner and discuss with each other as they work through the steps. The teacher will model each step.* *Note: If students do not need a review of the demonstration of day/night, you can begin the demonstration of the movement that causes the seasons (because of Earth's tilt) on page 18.* *Turn and Talk to your neighbor to review the meaning of the word tilt.* Let's experiment with the orange. Earth's axis is tilted. Can you show this? (*Have the students holding the oranges tilt the top of the pencil toward them, and away from their sun partner, so that the north pole is leaning away from the sun*.) Now rotate Earth. This is the way Earth rotates on its axis. Suns, turn on your flashlights to simulate the sun's rays. What do you notice? What would more direct light from the sun mean to us on Earth?	*Tilt* means to lean in a certain direction. More direct sunlight falls on the Southern hemisphere of Earth. More direct sunlight means more light and warmth.

	Can you guess what season it might be at this point in Earth's revolution? Is it the same season all over Earth?	It is summer in the south and winter in the north.
	Does the tilt change when Earth revolves around the sun?	The tilt does not change when Earth revolves around the sun.
	Suns, pick a point in the room that Earth's axis seems to be pointing to now. The sun's job will be to check that the axis continues to tilt in the same direction as Earth moves the orange around the sun. *Suns should ask Earth to stop and adjust the "tilt" if necessary*.	
	Now we are going to move around the sun. You might want to use your piece of masking tape to mark the spot on the floor where you begin, so that you can remember where you started. Without changing the tilt of Earth's axis, move around the Sun until you are halfway around from where you started.	
	What do you notice now about how the light shines on Earth?	The north is getting more light than the south.
	So now what season is it where we live? Why?	There is more sunlight shining on the northern half of Earth, so it is lighter and warmer. It is summer.
	Now, before you return back to the point you started at, stop halfway between where you are now, and where you started (this is ¾ of the way around Earth's full revolution around the sun.)	
	Where does the sunlight fall now? What season do you suppose it is?	It is fall in the north and spring in the south.
	Could anyone guess where the sun would be when it is spring where we live in the north? (*Let one group demonstrate*.)	
	Great! Now, let's sum up what we just discovered. (*Take volunteers*.) You can draw on the board, tell us, or show us.)	
	I was wondering about a few things…maybe you were too. So, what if	

	Earth did not tilt or lean on its axis? Would we have seasons? Would the temperature just be the same everywhere on Earth? (*Let them think about this…discuss or demonstrate.*) What if Earth was closer to the sun…would there still be seasons? What if it was just a little closer? Would there still be seasons?	No. There would not be seasons if Earth did not tilt on its axis. The temperature where we live would stay the same. The temperatures would be warmest at the equator, and coldest at the poles. (*First, they will probably talk about how Earth would burn up if it got too close to the Sun.*) Yes, there would still be seasons. Yes, we would still have seasons, but they would all be warmer. Maybe the polar ice caps would melt, and sea levels would be higher. If Earth was much closer than that, we would not be able to live on this planet.
Page 27-28	When we have summer, what is happening in the southern hemisphere of Earth? *If necessary*: What might people be doing? What happens at the North Pole and South Pole when they have their seasons?	When we are having summer, people on the southern half of Earth have winter. They could go ice skating or make a snowman. The North Pole and South Pole when they have their summers, the sun does not rise every day and it is dark all winter long. In the summer at the North and South Poles, the sun does not set every day for many weeks, so there is no night.
Page 29-30	How are the seasons different at the North and South Poles? What is one fact you learned about the equator?	The seasons are opposite at the poles. When the North Pole has winter, the South Pole has summer. Six months later, when it is winter at the South Pole, it is summer at the North Pole. It is warm all the time along the equator. The temperature is always about the same.
Page 31-32	Discuss with your partner whether you would rather see the four different seasons throughout the year, or live in a place where it was mostly	*Responses will vary depending on students' preferences/opinions about climate.*

	hot/summer (like on the equator) or mostly cold/winter most of the year.	

DAY 14: QUESTION SEQUENCE AND DAILY TASK

TEXT
Text: *The Reasons for Seasons* by Gail Gibbons **Iteration:** First Read *(The teacher may choose to spread the question sequence over two or three days.)* **Instructional Strategy:** Read Aloud

TEXT COMPLEXITY ANALYSIS	
QUANTITATIVE COMPLEXITY MEASURES	
620L	
QUALITATIVE COMPLEXITY MEASURES	
TEXT STRUCTURE	**LANGUAGE FEATURES**
The structure of this text is slightly complex. It is organized by the order of the seasons. Vivid illustrations aid in the students' conceptual understanding of the seasons, as explained by Earth's many relationships to the sun. Diagrams supplement the text in developing conceptual understanding.	The language is moderately complex. Some content-specific vocabulary (*equinox, solstice, migration, equator)* must be explicitly addressed to ensure student understanding. Primarily simple sentence structure is used to describe abstract concepts.
MEANING/PURPOSE	**KNOWLEDGE DEMANDS**
The purpose of this text is slightly complex; the reason for the seasons is explicitly stated in the title and throughout the book, noting the varying seasonal weather patterns. Teacher support will be necessary to develop understanding of the concepts introduced (i.e., the rotation of Earth's axis during each season, but the text purpose is clear.	Knowledge demands are slightly complex. While all students may not be familiar with all seasons, the text portrays everyday experiences and describes life through the seasons in different parts of the world in common terms. Acknowledging and understanding the explanations of the seasons should prepare students for the transfer of this conceptual understanding to other natural elements.

DESIRED UNDERSTANDINGS FOR THIS READ-THROUGH
The seasons are created by Earth's tilt and its position relative to the sun. The seasons are created by Earth's tilt and its position relative to the sun. On planet Earth, there are four seasons: spring, summer, fall/autumn, and winter, each lasting about three months.

DAILY TASK
Writing Task: After reading, work with a partner to organize facts about each of the seasons. Then write a paragraph explaining all four seasons. Be sure to include information about what causes the seasons, and describe each season using information and vocabulary (solstice, equinox) from the text.

EXEMPLAR STUDENT RESPONSE
Writing Task: Earth's tilt changes throughout the year causing seasons. When the North Pole is tipped toward the sun, it is summer in the northern hemisphere. The first day of the summer is called summer solstice and is the longest day of the year. Autumn is the season when it starts getting cooler. The first day of autumn is called the autumn equinox. During this time, some leaves turn to different colors and some animals migrate to warmer places. The first day of winter is called the winter solstice. Some of the first celebrations of winter were festivals to honor light, to keep away darkness and to hope for the sun's return. Spring is the season when the weather begins to get warmer and animals who have migrated return home. The first day of spring is called the spring equinox. As the seasons change, our lives change.

PAGE/PART OF TEXT	QUESTION SEQUENCE	EXEMPLAR STUDENT RESPONSE
Page 1	*Gather students together and discuss with them the names of the seasons. Print each one on a separate chart paper. Help the students to think about how life changes with each passing season. Ask them questions such as:* Do you wear the same clothes all year? Why or why not? When do flowers appear in gardens and parks?	No…As the seasons change, life and what we wear will change depending on how hot or cold the season is.
Page 2	What makes the seasons? (*Turn and Talk)*	The sun warms our planet Earth, and the tilt of Earth changes throughout the year to make seasons.

	Note: *Be sure that students share the word "tilt," a critical vocabulary word from the previous text in the set, Sunshine Makes the Seasons.*	
Page 3	We have already learned about seasons in our books, *On Earth* and *Sunshine Makes the Seasons*. Answer these three questions: How long does a season last? How many seasons are in a year, and what does revolve mean? Turn and talk to your neighbor as you review those answers.	It takes three months to make a season. It takes four seasons to make a year. Revolution means that it takes Earth a whole year to make one trip around the sun.
Page 4-5	How long does it take for Earth to make one full rotation on its axis? When is it summer in the northern hemisphere and when is it winter? What is the equator?	It takes Earth one day or 24 hours to make one full rotation. When the North Pole is tipped toward the sun and the South Pole is tipped away, it is summer in the northern hemisphere and winter in the southern hemisphere. The equator is the line that goes around Earth dividing the northern hemisphere of Earth from the southern hemisphere.
Page 6-10	When does spring usually begin? What happens in this season? What is migration? Tell your partner some animals that migrate.	In the northern hemisphere, spring usually begins around March 21. Spring is the season when more sunshine causes cooler air to be replaced with warmer air. Crops grow, trees grow, and new leaves and flowers bloom. Migration is when some animals that have been away return. Some birds and whales migrate.
Page 11-14	When does summer usually begin? What happens in this season? What is the first day of summer called? Tell your partner some things that happens in the summer?	Summer usually begins about June 21 in the northern hemisphere and the sun is tilted more toward the sun than any other time of the year. It is usually the warmest season. The first day of the summer is called summer solstice and the longest day of the year. Flowers and plants grow under the warm sun. Animals are having new

		families. People can go to the beach, read under a tree, and have fun.
Page 15-19	When does <u>autumn</u> usually begin? What happens in this season? What is the first day of autumn called? Tell your partner some things that happens in the autumn?	Autumn begins about September 21 in the northern hemisphere. This is the season when it starts getting cooler in the air. The first day of autumn is called the autumn equinox. Some leaves turn to different colors and fall to the ground. Farmers gather crops. Children go back to school. Some animals migrate and prepare for cold weather. The days grow shorter and the nights are longer.
Page 20-26	When does winter usually begin? What is the first day of winter called? What were some of the celebrations in the early times on the first day of winter? Tell your partner some things that happen in the winter. The author says that when it is winter in the northern hemisphere, summer is beginning in the southern hemisphere (*Use a globe to illustrate that when it is winter in Tennessee, for example, summer is beginning in Buenos Aires, Argentina*.) So, when we are bundled up in winter coats and playing in the snow because it's winter, what might students in a place like Buenos Aires be doing? So, what way is Earth tilting when it is winter in Tennessee and summer in Argentina?	The first day of winter usually December 21 in the northern hemisphere. The first day of winter is called the winter solstice. Some of the celebrations was a festival to honor light, to keep away darkness and to hope for the sun's return. Earth keeps losing the heat it gained in the summer. Leaves go away, birds migrate, and some animals hibernate. It can be very cold. You can ice skate, ski, make snowmen, and some people wear winter coats, jackets, hats, gloves, and mittens. Kids in Argentina might be swimming at the pool or running through a sprinkler, because it's summertime for them. Earth is tilting toward the sun in Argentina/the southern hemisphere, while it is tilting away from the sun in Tennessee/the northern hemisphere.

DAY 15 AND 16: END-OF-UNIT TASK

END-OF-UNIT TASK

We have read about several observable patterns such as (1) day and night, (2) phases of the moon, and (3) the seasons that affect Earth, and we took notes on our class Astronomer's Log and synthesized many of the things we learned along the way. Using that log and our synthesized writings, create a brochure that informs visitors at your school's STEM night about the patterns created by our universe's moving bodies. Be sure to name the three different topics we discussed, write and draw some facts about each topic, and end with some closing thoughts about patterns in the universe. Be sure to cite details from more than one of the texts we read.

Remember a strong brochure will:

- Use details from the texts we have read. Write at least three sentences:
    - A sentence introducing the observable pattern
    - At least one sentence explaining why we observe this pattern
    - A sentence that provides some closure to that page in your pamphlet.
- Use at least three vocabulary words from the word display.

STUDENT RESPONSE

An exemplary response would discuss the different patterns, would have some drawings incorporated, would synthesize the learnings around each topic (1-day and night, 2-phases of the moon, and 3- the seasons that affect Earth), and would have some kind of closing that brings it all together.

- Using details from the texts we have read, write at least three sentences:
    - A sentence introducing the observable pattern
    - At least one sentence explaining why we observe this pattern
    - A sentence that provides some closure to that page in your pamphlet

Use multiple vocabulary words from the word display.

APPENDIX A: UNIT PREPARATION PROTOCOL

Question 1: What will students learn during my unit?

Review the content goals for the unit, and identify the desired results for learners.	
• What are the concepts around which I will organize my unit (*universal concept, unit concept*)? • What will students come to understand through deep exploration of these concepts (*essential questions, enduring understandings*)?* • What disciplinary knowledge will focus instruction and provide the schema for students to organize and anchor new words (*guiding questions, disciplinary understandings*)? • Why is this content important for students to know? *Adapted from McTighe, J. & Seif, E. (2011), Wiggins, G. & McTighe (2013).	

Question 2: How will students demonstrate their learning at the end of my unit?

Review the end-of-unit task and the exemplar response to determine how students will demonstrate their learning.	
• How does the task integrate the grade-level standards for reading, writing, speaking and listening, and/or foundational literacy in service of deep understanding of the unit texts and concepts? • How does the task call for students to synthesize their learning across texts to demonstrate their understanding of the unit concept? • How does the task call for students to use appropriate details and elaborate on their thinking sufficiently? • How does the task prompt student thinking and writing that reflects the grade-level expectations? • What is the criteria for success on this task? What does an excellent response look/sound like?	

Question 3: How will students build knowledge and vocabulary over the course of the unit?

Read each of the texts for the unit, and consider how the texts are thoughtfully sequenced to build world and word knowledge.	
• How are the texts sequenced to build knowledge around the unit concepts? • How are the texts sequenced to support students in developing academic and domain-specific vocabulary? • Which instructional strategies are suggested for each text? How will I sequence them within the literacy block?	

Question 4: What makes the text complex?

You are now ready to prepare at the lesson level. To do this, revisit the individual text. Review the text complexity analysis and read the desired understandings for the read-through.	
• What aspects of this text (structure, features, meaning/purpose, knowledge) are the most complex? • What aspects of the text are most critical for students to comprehend to ensure they arrive at the desired understandings? • Where might you need to spend time and focus students' attention to ensure they comprehend the text?	

Question 5: How will I help students access complex texts?

Review the question sequence, and reflect on how the questions support students in accessing the text.	
• How does the question sequence support students in accessing the text and developing the desired understandings? • How does the question sequence attend to words, phrases, and sentences that will support students in building vocabulary and knowledge? • How are the questions skillfully sequenced to guide students to the desired understandings? • How will you ensure all students engage with the questions that are most essential to the objectives of the lesson? (Consider structures such as turn and talk, stop and jot, etc.) • How will you consider additional texts, or additional reads of the text, to ensure students fully access and deeply understand the text?	

Question 6: How will students demonstrate their learning at the daily level?

Review the daily task for the lesson to determine what students will be able to do at the end of the lesson.	
• How does the task require students to demonstrate their new or refined understanding? • How does the task call for students to use appropriate details and elaborate on their thinking sufficiently? • How does the task prompt student thinking and writing that reflects the grade-level expectations? • How does this task build on prior learning in the unit/prepare students for success on the end-of-unit task? • What is the criteria for success on this task? What does an excellent response look/sound like?	

Question 7: What do my students already know and what are they already able to do?

Consider what your students already know and what they are already able to do to support productive engagement with the resources in the unit starter.	
• What knowledge do my students need to have prior to this unit? • What do my students already know? What are they already able to do? • Given this, which/what components of these texts might be challenging? Which/what components of these tasks might be challenging? • What supports will I plan for my for students (e.g., shifting to a different level of cognitive demand, adding or adjusting talking structures, adding or adjusting accountable talk stems into student discussions, providing specific academic feedback, or adding or adjusting scaffolded support)? • How can the questions and tasks provided in the unit starter inform adjustments to upcoming lessons?	

Question 8: What content do I need to brush up on before teaching this unit?

Determine what knowledge you as the teacher need to build before having students engaged with these resources.	
• What knowledge and understandings about the content do I need to build? • What action steps can I take to develop my knowledge? • What resources and support will I seek out?	

APPENDIX B: USEFUL PROCEDURAL EXAMPLES FOR EXPLICIT VOCABULARY INSTRUCTION

Example 1:

- Contextualize the word for its role in the text.
- Provide a student friendly definition, description, explanation, or example of the new term along with a nonlinguistic representation and a gesture.
- Provide additional examples, and ask students to provide their own examples of the word.
- Construct a picture, symbol, or graphic to represent the word.
- Engage students in lively ways to utilize the new word immediately.
- Provide multiple exposures to the word over time.

-Beck et al., 2002; Marzano, 2004

For a specific example, see the shared reading webinar presentation found here.

Example 2:

- Say the word; teach pronunciation.
- Class repeats the word.
- Display the word with a visual, read the word, and say the definition using a complete sentence.
- Have the class say the word and repeat the definition.
- Use the word in a sentence: the context of the sentence should be something students know and can connect with.
- Add a gesture to the definition, and repeat the definition with the gesture.
- Students repeat the definition with the gesture.
- Have student partners take turns teaching the word to each other and using the word in a sentence they create.
- Explain how the word will be used in the text, either by reading the sentence in which it appears or explaining the context in which it appears.

- Adapted from *50 Nifty Speaking and Listening Activities* by Judi Dodson