



CCPS Science Unit Plan

Grade	Kindergarten	Subject	Science	Unit #	5
Unit Name	Unit 5: Time Patterns (Day and Night Sky)		Timeline	5 weeks	
How to use the Framework	<p>This Framework should be used to implement daily science instruction. The resources and instructional strategies reflected in the Framework will provide a foundation for effective implementation and student mastery of standards.</p> <p>Please see the hyperlinked abbreviation document to ensure understanding of all abbreviations used with this framework.</p> <p>CCPS Department of Science Website for access to all unit frameworks</p>				
Unit Overview	<p>*All resources related to this Framework are embedded in this document or can be located via the Science Department website.</p> <p>As a result of observations and classification, students should be able to use the observations made as evidence to identify the pattern that the sun can only be seen in the daytime, stars can only be seen at nighttime, but the moon can be seen sometimes at night and sometimes during the day. K-2 students should be able to discuss patterns they observe: “Patterns in the natural and human designed world can be observed, used to describe phenomenon, and used as evidence.”</p> <p>By the end of this unit the student will be able to: obtain, evaluate, and communicate observations about time patterns (day to night and night to day) and objects (sun, moon, stars) in the day and night sky. Students will ask questions to classify objects according to those seen in the day sky, the night sky, and both. Furthermore, they will develop a model using pictures and words to communicate the changes that occur in the sky during the day, as day turns into night, during the night, and as night turns into day.</p> <p>By the end of this unit the teacher should: ensure students can obtain, evaluate, and communicate observations about time patterns (day to night and night to day) and objects (sun, moon, stars) in the day and night sky. Also, guide students to ask questions to classify objects according to those seen in the day sky, the night sky, and both. Furthermore, assist students in developing a model using pictures and words to communicate the changes that occur in the sky during the day, as day turns into night, during the night, and as night turns into day.</p> <p> Science-Kindergarten-Teacher-Notes.pdf</p>				
Lesson Plan guidance document and template	<p>The document linked below will provide the teacher with guidance and understanding to support utilizing this framework in order to facilitate effective science instruction.</p> <p> Copy of Department of Science CCPS Lesson Plan Guidance Document .pdf</p>				

Standards	GSE	Science and Engineering Practices	Crosscutting Concepts
	<p>SKE1. Obtain, evaluate, and communicate observations about time patterns (day to night and night to day) and objects (sun, moon, stars) in the day and night sky.</p> <ul style="list-style-type: none"> a. Ask questions to classify objects according to those seen in the day sky, the night sky, and both. b. Develop a model to communicate the changes that occur in the sky during the day, as day turns into night, during the night, and as night turns into day using pictures and words. (Students are not expected to understand the tilt of the Earth, rotation, or revolution.) 	<p>Asking questions and defining problems Ask questions based on observations to find more information about the designed world.</p> <p>Obtain, evaluate, and communicate information Read grade-appropriate texts and/or use media to obtain scientific information to describe patterns in the natural world.</p> <p>Developing and Using Models Engaging in argument from evidence to develop a model to represent relationships and/ or patterns with motion.</p>	<p>Patterns: Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.</p>

NGSS Alignment	NGSS Alignment to Disciplinary Core Ideas
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The Phenomenon Protocol

Anchoring Phenomena	Learning Targets
📄 SKE1.a	The students will ask questions and define problems about items seen in the sky at different times.
📄 SKE1.b.pdf	The students will use pictures and words to make a model to represent changes in the sky.

Weekly Lesson Tasks

Week 1	
GSE: 📄 SKE1.a	Focused Concept: Patterns of the motion of the Sun, moon, and stars in the sky, can be observed, described, and predicted.

Learning Target		Students will classify objects based on whether they are seen during the day, during the night or both.		
Lab Safety Protocol and Materials		<p>W General Safety Practices for the Elementary Science Classroom- TOC.docx</p> <p>Students should be reminded that they shouldn't look directly at the sun.</p>		
Phenomenon: SKE1.a		DQ: What do we see in the day sky that we do not see at night?		
Day 1: Opening	Day 2 : Guided Practice/ Transition	Day 3: Independent Practice	Day 4: Independent Practice	Day 5: Assessment / Summary
<p>Phenomenon Introduction (5-7 minutes)</p> <p>Show students the phenomenon card: The Day and Night Sky</p> <p>Use the see, think wonder strategy to guide student thinking.</p> <p>The teacher should provide students opportunities to share observations and develop questions. The teacher should record students' observations on chart paper and refer back to initial student ideas throughout the week.</p> <p>Inquiry Activity (10-15 minutes)</p> <p>SEP Teacher Tip:</p> <p>To support students with the science and engineering practices for this week, follow the guidance in this protocol:</p> <p>Developing model construction questions</p>	<p>Introduce the Driving Question: (7-10 minutes)</p> <p>Have students review the driving question:</p> <p><i>What do we see in the day sky that we do not see at night?</i></p> <p>Use the strategy to support students with making connections and understanding the driving question (DQ).</p> <p>Visualizing the Driving Question</p> <p>Click here to access question words reference chart</p> <p>The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.</p> <p>Be sure to create a reference for students to have throughout the week.</p> <p>**TEACHER NOTE: Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.</p>	<p>Graphic Organizer (2-3 minutes for students to access)</p> <p>Materials</p> <p>white paper crayons scissors</p> <p>Investigation Facilitation (20-25 minutes)</p> <p>SEP Teacher Tip:</p> <p>To support students with the science and engineering practices for this week, follow the guidance in this protocol:</p> <p>Developing model construction questions</p> <p>Provide constructive feedback for building a model</p> <p>Student back pocket questions uInvestigate Lab Savvas: Why does the sky look different during day and the night?</p> <p>Objective Students will develop and use a model to show the differences between</p>	<p>Text Annotation Protocol (30-45 minutes)</p> <p>Have students read and annotate the following text:</p> <p>Day and Night Sky by Conrad J. Storar</p> <p><i>What did you observe in the night sky?</i></p> <p><i>What did you observe in the day sky?</i></p> <p><i>Did you observe any objects that were in both skies? Name that/them.</i></p> <p>The text for this week's lesson can be found in the website Get Epic books.</p> <p>View the following facilitation directions: The text is designed to be projected or copied onto chart paper for a shared and interactive reading experience. More advanced students may benefit from following along on a paper copy.</p> <p>**TEACHER NOTE: In groups, provide each group with a small portion of the</p>	<p>Assessment for Learning: (10-15 minutes)</p> <p>Have students complete the following assessment.</p> <p>**TEACHER NOTE:</p> <p>Assessments may be administered to the whole group or small group. Provide each student with a copy of the assessment. Display the assessment for students to track as the teacher reads each question. The teacher will read each question and the responses. Instruct the student to mark or circle the correct answer.</p>

[Provide constructive feedback for building a model](#)

[Student back pocket questions](#)
[Savvas Jumpstart Discovery](#)

Draw one thing that you see in the night sky.

Draw one thing that you see in the day sky.

Compare drawings with a partner.

[Savvas Lesson 1: Pages 3 - 4](#)
Day and Night Sky

The students will read the passage on the following pages of lesson one.

Objective: Students will explain how the sky changes from daytime to nighttime.

What question could you ask to know that it is day?

Draw day. Draw night.

****TEACHER NOTE:**
Click above for Savvas lesson 1 TE

Draw students' attention to

Claim-Evidence-Reasoning (CER) **(10-12 minutes)**

[Week 1 Physical Attributes work samples](#)

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#) (google doc)

Claim-Evidence-Reasoning Obs...
(PDF)

- 1. Identify the student's claim in the sample and have the teacher or students write their observations or questions.*
- 2. Identify the student's evidence in the sample and have the teacher or students write their observations or questions.*
- 3. Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.*

Ask the following questions to students as they analyze the student samples:

Claim-Evidence-Reasoning Que...

****TEACHER NOTE:** As students review the student samples, they will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

day and night.

Color 2 squares like day and 2 like night. With a partner, sort all the cards into day and night.

Tell how day and night look different.

Talk to a partner. What happens to make day turn into night?

****TEACHER NOTE:**

Cut pieces of white paper into four squares. Each student will need four squares of paper to make their drawings. Students will probably draw the sun and clouds for the day and the moon and stars for the night.

text or an entire reading passage. The amount of text should be considered student reading levels.

Have the students in the group read independently for five - seven minutes.

After students read individually, allow five to seven minutes to discuss information read in their groups.

Encourage students to take notes or draw pictures in the [provided graphic organizer](#).

Students should highlight, underline, circle and or box key phrases, vocabulary or important concepts if working on physical text or online notation tools.

When students have completed their discussion, you will need to allow the students to switch groups to meet other peers that were not initially in their group. Students will share their knowledge with another group of students for 7 - 10 minutes. Students will compare notes from their initial groups.

[See diagram of example](#)

Vocabulary Strategy

sun, moon, stars

Vocabulary Strategy:

(10-15 minutes)

Four Square

Provide students with the

the photos on the page. Ask them to *name all the things in the first picture that show that it is day*. (bright blue sky, clouds)

Now ask students to *name all the things*

Materials

Writing/drawing utensils
[Savvas Student pages](#)

[graphic organizer \(editable\)](#) or [pdf handout](#), explaining its four sections: word, meaning, picture, and sentence.

Week 2

GSE: ■ SKE1.a

Focused Concept: Patterns of the motion of the Sun, moon, and stars in the sky, can be observed, described, and predicted.

Learning Target

Students will classify objects based on whether they are seen during the day, during the night or both.

Lab Safety Protocol and Materials

W General Safety Practices for the Elementary Science Classroom- TOC.docx
 Students should be reminded that they shouldn't look directly at the sun.

Phenomenon: ■ SKE1.a

DQ: What do we see in the day sky that we do not see at night?

Day 1: Opening	Day 2 : Guided Practice/ Transition	Day 3: Independent Practice	Day 4: Independent Practice	Day 5: Assessment / Summary
<p>Phenomenon Introduction (5-7 minutes)</p> <p>Show students the phenomenon card: The Day and Night Sky</p> <p>Use the see, think wonder strategy to guide student thinking.</p> <p>The teacher should provide students opportunities to share observations and develop questions. The</p>	<p>Introduce the Driving Question: (7-10 minutes)</p> <p>Have students review the driving question:</p> <p><i>What do we see in the day sky that we do not see at night??</i></p> <p>Use the strategy to support students with making connections and understanding the driving question (DQ).</p> <p>Visualizing the Driving Question</p>	<p>Graphic Organizer (2-3 minutes for students to access)</p> <p>The student will be able to identify, analyze, and compare picture</p> <p>Materials Day and night picture cards (one set per group)</p> <p>Investigation Facilitation (20-25 minutes)</p> <p>SEP Teacher Tip:</p>	<p>Text Annotation Protocol (30-45 minutes)</p> <p>Have students read and annotate the following text:</p> <p>Full STEAM ahead!: Day and Night by Crystal Sikkens</p> <p><i>What pattern can be observed between the day and night sky?</i></p> <p><i>Why do we (Earth) experience day and night?</i></p>	<p>Claim-Evidence-Reasoning (15-25 minutes)</p> <p>Students will write a response to the following driving question in the CER format.</p> <p><i>What do we see in the day sky that we do not see at night??</i></p> <p>Review the claim-evidence-reasoning poster with the students</p>

teacher should record students' observations on chart paper and refer back to initial student ideas throughout the week.

Inquiry Activity (10-15 minutes)

SEP Teacher Tip:

To support students with the science and engineering practices for this week, follow the guidance in this protocol:

[Developing model construction questions](#)

[Provide constructive feedback for building a model](#)

[Student back pocket questions](#)

Savvas Jumpstart Discovery

Draw one thing that you see in the night sky. Draw one thing that you see in the day sky. Compare drawings with a partner.

Savvas Lesson 1: Pages 5 - 6 Day and Night Sky

The students will read the passage on the following pages of lesson one.

Click here to access [question words reference chart](#)

The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.

Be sure to create a reference for students to have throughout the week.

****TEACHER NOTE:** Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.

Claim-Evidence-Reasoning (CER) (10-12 minutes)

[Week 1 Physical Attributes work samples](#)

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#) (google doc)

[Claim-Evidence-Reasoning O...](#)
(PDF)

1. *Identify the student's claim in the sample and have the teacher or students write their observations or questions.*

2. *Identify the student's evidence in the sample and have the teacher or*

To support students with the science and engineering practices for this week, follow the guidance in this protocol:

[Developing model construction questions](#)

[Provide constructive feedback for building a model](#)

[Student back pocket questions](#)
Discuss each student's day (24 hours).

What do they do in the morning?

At night?

At other times during the day?

They should be able to recognize that day and night are patterns. They sleep at night and wake in the morning. Students should be able to identify patterns throughout the day and evening, including when they see the Sun, the Moon, and stars, and when they do not.

Objective: The student will identify the pattern of the sky as day and night.

Students will need to work in groups or pairs to put the [day and night cards](#) in order in some way to show the steps of the cycle.

****TEACHER NOTE:**
Discuss the groupings.

What kind of activities are we doing in the daytime? In the nighttime?

The text for this week's lesson can be found in the website Get Epic books.

View the following facilitation directions: The text is designed to be projected or copied onto chart paper for a shared and interactive reading experience. More advanced students may benefit from following along on a paper copy.

****TEACHER NOTE:** In groups, provide each group with a small portion of the text or an entire reading passage. The amount of text should be considered student reading levels.

Have the students in the group read independently for five - seven minutes.

After students read individually, allow five to seven minutes to discuss information read in their groups.

Encourage students to take notes or draw pictures in the [provided graphic organizer](#).

Students should highlight, underline, circle and or box key phrases, vocabulary or important concepts if working on physical text or online notation tools.

****TEACHER NOTE:** Provide students with sentence starters by sharing on the board:

[K-2 Claim-Evidence-Rea...](#)

Have students write their claim-evidence-reasoning

writing a claim

Have students develop a claim which is their answer to the driving question. Students should use all their knowledge from the phenomenon, inquiry activity, investigation, and information analysis protocol to develop an answer to the question.

writing evidence

Students should provide observational or numerical data as their evidence from their investigation and write a short caption or brief description of the data they provide to support their claim.

Have students use the following template to write their claim-evidence-reasoning (CER)

[K-2 Student Writing Template \(editable\)](#)

[K-2 Student Writing Template \(pdf\)](#)

****TEACHER NOTE:** Have students review the student sample(s) of claim-evidence-reasoning on Day 2. Have students compare their writing to those students' samples. Ask the following questions:

Objective: Students will explain how the sky changes from daytime to nighttime.

What could you see in the sky in both day and night?

Why can you see the other stars only at night? Tell how you know.

****TEACHER NOTE:**

Click above link to access Savvas Lesson 1 TE.

Draw students' attention to the photos on the page. Ask them to name all the things in the first picture that show that it is day. (bright blue sky, clouds)

Now ask students to name all the things

Materials

Writing/drawing utensils
[Savvas Student pages](#)

students write their observations or questions.

3. *Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.*

Ask the following questions to students as they analyze the student samples:

Claim-Evidence-Reasoning Q...

[Week 2 Physical Attributes work samples](#)

****TEACHER NOTE:** As students review the student samples, they will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

Brainstorm the ways day and night are different and the changes occurring in the pictures.

a. *What pattern did you create?*

We placed the cards in order of morning, day, evening, and night.

b. *Were there any times of the day when the sky looked the same?*

The sky in the morning and in the evening look the same.

When the Sun is close to the horizon, the sky looks orange and a little darker.

When students have completed their discussion, you will need to allow the students to switch groups to meet other peers that were not initially in their group. Students will share their knowledge with another group of students for 7 - 10 minutes. Students will compare notes from their initial groups.

[See diagram of example](#)

Vocabulary Strategy

earth, classification, objects

Vocabulary Strategy: (10-15 minutes)

Four Square

Provide students with the [graphic organizer \(editable\)](#) or [pdf handout](#), explaining its four sections: word, meaning, picture, and sentence.

How are your thoughts or understanding similar to another writer on the topic?

How are your thoughts or understanding different to another writer on the topic?

What would you like to learn more about? Why?

Week 3

GSE: **SKE1.a**

Focused Concept: Some events on Earth occur in cycles, like day and night.

Learning Target

Students will classify objects based on whether they are seen during the day, during the night or both.

Lab Safety Protocol and Materials

W General Safety Practices for the Elementary Science Classroom- TOC.docx
Students should be reminded that they shouldn't look directly at the sun.

Phenomenon: **SKE1.a**

DQ: What do we see in the day sky that we do not see at night?

Day 1: Opening	Day 2 : Guided Practice/ Transition	Day 3: Independent Practice	Day 4: Independent Practice	Day 5: Assessment / Summary
<p>Phenomenon Introduction (5-7 minutes)</p> <p>Show students the phenomenon card: The Day and Night Sky</p> <p>Use the see, think wonder strategy to guide student thinking.</p> <p>The teacher should provide students opportunities to share observations and develop questions. The teacher should record students' observations on chart paper and refer back to initial student ideas throughout the week.</p> <p>Inquiry Activity (10-15 minutes)</p> <p>SEP Teacher Tip:</p> <p>To support students with the science and engineering practices for this week, follow the guidance in this protocol:</p> <p>Developing model construction questions</p> <p>Provide constructive feedback for building a model</p> <p>Student back pocket questions Mystery Science - Moon and Stars: Why do the stars come out at night? Lesson 2</p> <p>The students will engage</p>	<p>Introduce the Driving Question: (7-10 minutes)</p> <p>Have students review the driving question:</p> <p><i>What do we see in the day sky that we do not see at night??</i></p> <p>Use the strategy to support students with making connections and understanding the driving question (DQ).</p> <p>Visualizing the Driving Question</p> <p>Click here to access question words reference chart</p> <p>The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.</p> <p>Be sure to create a reference for students to have throughout the week.</p> <p>**TEACHER NOTE: Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.</p>	<p>Graphic Organizer (2-3 minutes for students to access)</p> <p>Materials Dot Stickers Cups (Paper, 8 oz) LED Flashlights Big Dipper Star Pictures printout Sky Sheet print out Push pins or toothpicks Scissors</p> <p>Investigation Facilitation (20-25 minutes)</p> <p>SEP Teacher Tip:</p> <p>To support students with the science and engineering practices for this week, follow the guidance in this protocol:</p> <p>Developing model construction questions</p> <p>Provide constructive feedback for building a model</p> <p>Student back pocket questions Star Projector Activity Students use a model to investigate why the stars are visible at night but disappear when the Sun comes out during the day. In the activity, Star Projector, students use paper cups to project stars onto a sky picture, and observe what happens to these stars when a</p>	<p>Text Annotation Protocol (30-45 minutes)</p> <p>Have students read and annotate the following text:</p> <p>Day and Night by Robin Nelson</p> <p><i>What is the Earth doing in space each day? Model this action using your individual bodies.</i></p> <p><i>If the Earth does not spin what will happen to the sky? What sky will we see?</i></p> <p>The text for this week's lesson can be found in the website Get Epic books.</p> <p>Have students read and annotate the following text: View the following facilitation directions: The text is designed to be projected or copied onto chart paper for a shared and interactive reading experience. More advanced students may benefit from following along on a paper copy.</p> <p>**TEACHER NOTE: In groups, provide each group with a small portion of the text or an entire reading passage. The amount of text should be considered student reading levels.</p> <p>Have the students in the group read independently for</p>	<p>Assessment for Learning: (10-15 minutes)</p> <p>Have students complete the following assessment.</p> <p>**TEACHER NOTE:</p> <p>Assessments may be administered to the whole group or small group. Provide each student with a copy of the assessment. Display the assessment for students to track as the teacher reads each question. The teacher will read each question and the responses. Instruct the student to mark or circle the correct answer.</p>

with the exploration video to identify and describe the objects seen in the night sky and identify how they differ from what is seen in the day sky.

The student will identify that stars form patterns in the night sky.

Are there objects from the night sky that are visible in the day sky?

Tell what they are and why they are visible?

****TEACHER NOTE:**

Be sure to come to a stopping point in the lesson slide deck. It will be resumed on Day 3.

Claim-Evidence-Reasoning (CER)

(10-12 minutes)

[Week 3 Physical Attributes work samples](#)

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#) (google doc)

[Claim-Evidence-Reasoning \(PDF\)](#)

1. *Identify the student's claim in the sample and have the teacher or students write their observations or questions.*

2. *Identify the student's evidence in the sample and have the teacher or students write their observations or questions.*

3. *Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.*

Ask the following questions to students as they analyze the student samples:

[Claim-Evidence-Reasoning \(PDF\)](#)

****TEACHER NOTE:** As students review the student samples, they will begin to see or read vocabulary. Begin or

flashlight acts as a model of the Sun.

What do you hypothesize will happen to the stars if the flashlight acts as a model of the sun?

What happens to the stars in the sky when the sun rises?

Objective:
Students will need to work in partner pairs. The teacher should assign partners prior to the beginning of the lesson.

Have students follow the procedure provided in the lab.

****TEACHER NOTE:**

You will need to do part of this activity in the dark with the lights off and curtains drawn. Students work in pairs. Each printout has 12 Big Dipper pictures. Cut up enough Big Dipper sheets to provide each student with one star picture. Set up activity stations by posting Sky Sheets on walls that will be dark or dimly lit when you pull the shades and turn out the lights. We recommend that each pair of students works at an activity station. If classroom space is limited, we've found that one station can comfortably accommodate up to 8 students taking turns.

five - seven minutes.

After students read individually, allow five to seven minutes to discuss information read in their groups.

Encourage students to take notes or draw pictures in the [provided graphic organizer](#).

Students should highlight, underline, circle and or box key phrases, vocabulary or important concepts if working on physical text or online notation tools.

When students have completed their discussion, you will need to allow the students to switch groups to meet other peers that were not initially in their group. Students will share their knowledge with another group of students for 7 - 10 minutes. Students will compare notes from their initial groups.

[See diagram of example](#)

Vocabulary Strategy

continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

Week 4


GSE:  SKE1.b.pdf

Focused Concept: Some things happen on earth in cycles such as the time pattern of day and night.

Learning Target


Students will use pictures and words to make a model to represent changes in the sky.

Lab Safety Protocol and Materials

 **General Safety Practices for the Elementary Science Classroom- TOC.docx**
Students should be reminded that they shouldn't look directly at the sun.

Phenomenon:  SKE1.b.pdf

DQ: Is the sky always the same?

Day 1: Opening	Day 2 : Guided Practice/ Transition	Day 3: Independent Practice	Day 4: Independent Practice	Day 5: Assessment / Summary
<p>Phenomenon Introduction (5-7 minutes)</p> <p>Show students the phenomenon card : Changes in the Sky During the Day</p> <p>Use the see, think wonder strategy to guide student thinking.</p> <p>The teacher should provide students opportunities to share observations and develop questions. The teacher should record students' observations on chart paper and refer back to initial student ideas throughout the week.</p>	<p>Introduce the Driving Question: (7-10 minutes)</p> <p>Have students review the driving question:</p> <p><i>Is the sky always the same?</i></p> <p>Use the strategy to support students with making connections and understanding the driving question (DQ).</p> <p>Visualizing the Driving Question</p> <p>Click here to access question words reference chart</p> <p>The process can be recorded on chart paper with the students or the</p>	<p>Graphic Organizer (2-3 minutes for students to access)</p> <p>Materials</p> <p>Object in the sky printable</p> <p>1 Scissor (per student) 1 Stapler (per group) 1–2 Glue sticks (per group) 1 Pack of crayons, colored pencils, or markers (per student/group) 1 Paper plate (per student) 30 cm String (per student) or 30 cm long paper strip (per student)</p> <p>Investigation Facilitation (20-25 minutes)</p> <p>SEP Teacher Tip:</p>	<p>Text Annotation Protocol (30-45 minutes)</p> <p>Have students read and annotate the following text:</p> <p>GaDOE Day and Night Sky article</p> <p>View the following facilitation directions: The text is designed to be projected or copied onto chart paper for a shared and interactive reading experience. More advanced students may benefit from following along on a paper copy.</p> <p>**TEACHER NOTE: In groups, provide each group</p>	<p>Claim-Evidence-Reasoning (15-25 minutes)</p> <p>Students will write a response to the following driving question in the CER format.</p> <p><i>Is the sky always the same?</i></p> <p>Review the claim-evidence-reasoning poster with the students</p> <p>**TEACHER NOTE: Provide students with sentence starters by sharing on the board:</p> <p> K-2 Claim-Evidence-Rea...</p> <p>Have students write their claim-evidence-reasoning</p>

Inquiry Activity
(10-15 minutes)

SEP Teacher Tip:

To support students with the science and engineering practices for this week, follow the guidance in this protocol:

[Developing model construction questions](#)

[Provide constructive feedback for building a model](#)

[Student back pocket questions](#)

Students will complete a picture card Venn diagram sort activity. Hula hoops or yarn is used to make the Venn diagram to do this activity as a whole group. Some students can draw their own pictures on blank index cards to include in the sort activity and/or use pre-printed pictures.

Students will draw two pictures of the same scene of their choice (Some suggestions include their home, school, an area in their community, etc.). One picture should show what the area looks like during the day and the other should show what the same area looks like at night.

What does our school look like in the day sky?

Now show me what our school will look like in the night sky?

****TEACHER NOTE:**

teacher can complete the graphic organizer.

Be sure to create a reference for students to have throughout the week.

****TEACHER NOTE:** Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.

Claim-Evidence-Reasoning (CER)
(10-12 minutes)

[Week 4 Physical Attributes work samples](#)

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#) (google doc)

Claim-Evidence-Reasoning ...
(PDF)

1. Identify the student's claim in the sample and have the teacher or students write their observations or questions.

2. Identify the student's evidence in the sample and have the teacher or students write their observations or questions.

To support students with the science and engineering practices for this week, follow the guidance in this protocol:

[Developing model construction questions](#)

[Provide constructive feedback for building a model](#)

[Student back pocket questions](#)
[Day and Night Cycle Mobile](#)

1. Draw a line down the center of your plate. Draw another line across the middle of your plate.
2. Draw yourself and what the sky looks like during the day, the night, when day turns to night, and when night turns to day.
3. Add string to the bottom of your plate.
4. Cut out pictures of the Sun, the Moon, stars, and clouds.
5. Write "day," "night," or "day and night" on the cutouts to tell when you see them in the sky

Objective:

Students will need to work in partner pairs. The teacher should assign partners prior to the beginning of the lesson.

with a small portion of the text or an entire reading passage. The amount of text should be considered student reading levels.

Have the students in the group read independently for five - seven minutes.

After students read individually, allow five to seven minutes to discuss information read in their groups.

Encourage students to take notes or draw pictures in the [provided graphic organizer](#).

Students should highlight, underline, circle and or box key phrases, vocabulary or important concepts if working on physical text or online notation tools.

When students have completed their discussion, you will need to allow the students to switch groups to meet other peers that were not initially in their group. Students will share their knowledge with another group of students for 7 - 10 minutes. Students will compare notes from their initial groups.

[See diagram of example](#)

Vocabulary Strategy

writing a claim

Have students develop a claim which is their answer to the driving question. Students should use all their knowledge from the phenomenon, inquiry activity, investigation, and information analysis protocol to develop an answer to the question.

writing evidence

Students should provide observational or numerical data as their evidence from their investigation and write a short caption or brief description of the data they provide to support their claim.

Have students use the following template to write their claim-evidence-reasoning (CER)

[K-2 Student Writing Template \(editable\)](#)

[K-2 Student Writing Template \(pdf\)](#)

****TEACHER NOTE:** Have students review the student sample(s) of claim-evidence-reasoning on Day 2. Have students compare their writing to those students' samples. Ask the following questions:

How are your thoughts or understanding similar to another writer on the topic?
How are your thoughts or understanding different to another writer on the topic?
What would you like to learn more about? Why?

<p>Students will refer to the completed Venn diagram to ensure understanding of and get more ideas about the similarities and differences of the day and night sky.</p>	<p>3. <i>Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.</i></p> <p>Ask the following questions to students as they analyze the student samples:</p> <p>Claim-Evidence-Reasoning ...</p> <p>**TEACHER NOTE: As students review the student samples, they will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.</p>	<p><i>What did you observe in the night sky?</i></p> <p><i>What did you observe in the day sky?</i></p> <p><i>Did you observe any objects that were in both skies? Name that/them.</i></p> <p>**TEACHER NOTE: Have students follow the procedure provided in the lab.</p>		
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Week 5				
GSE SKE1.b.pdf		Focused Concept: Some things happen on earth in cycles such as the time pattern of day and night.		
Learning Target		Students will use pictures and words to make a model to represent changes in the sky.		
Lab Safety Protocol and Materials		General Safety Practices for the Elementary Science Classroom- TOC.docx		
Phenomenon SKE1.b.pdf			DQ: Is the sky always the same?	
Day 1: Opening	Day 2 : Guided Practice/ Transition	Day 3: Independent Practice	Day 4: Independent Practice	Day 5: Assessment / Summary
<p>Phenomenon Introduction (5-7 minutes)</p> <p>Show students the phenomenon card : Changes in the Sky During the Day</p>	<p>Introduce the Driving Question: (7-10 minutes)</p> <p>Have students review the driving question:</p>	<p>Graphic Organizer (2-3 minutes for students to access)</p> <p>Materials Black, light blue, and green</p>	<p>Text Annotation Protocol (30-45 minutes)</p> <p>Have students read and annotate the following text:</p>	<p>Claim-Evidence-Reasoning (15-25 minutes)</p> <p>Students will write a response to the following driving question in the CER format.</p>

Use the [see, think wonder strategy](#) to guide student thinking.

The teacher should provide students opportunities to share observations and develop questions. The teacher should record students' observations on chart paper and refer back to initial student ideas throughout the week.

Inquiry Activity (10-15 minutes)

SEP Teacher Tip:

To support students with the science and engineering practices for this week, follow the guidance in this protocol:

[Developing model construction questions](#)

[Provide constructive feedback for building a model](#)

[Student back pocket questions](#)

Students will discuss observations that help them to know when it is day or when it is night. The discussion should include objects that students observe in the day sky, night sky, and both.

What objects are commonly in the night sky?

What objects are commonly in the day sky?

What animals are awake and

Is the sky always the same?

Use the strategy to support students with making connections and understanding the driving question (DQ).

[Visualizing the Driving Question](#)

Click here to access [question words reference chart](#)

The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.

Be sure to create a reference for students to have throughout the week.

****TEACHER NOTE:** Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.

Claim-Evidence-Reasoning (CER)
(10-12 minutes)

[Week 5 Student work samples](#)

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning](#)

construction paper (per student)
1 Container of glitter (per table)
3-5 Cotton balls (per student)
5-7 Star stickers (per student)
1 White chalk (per student)
1 Glue (per student)
Crayons (per student)
1 Pushpin or toothpick, optional (per student)

Investigation Facilitation (20-25 minutes)

SEP Teacher Tip:

To support students with the science and engineering practices for this week, follow the guidance in this protocol:

[Developing model construction questions](#)

[Provide constructive feedback for building a model](#)

[Student back pocket questions](#)
[Day and Night Model](#)

Objective: Students will create models to show their understanding of patterns of objects present in the day and night sky.

What did you observe in the night sky?

What did you observe in the day sky?

Did you observe any objects

[Day and Night Reading printable](#)

View the following facilitation directions: The text is designed to be projected or copied onto chart paper for a shared and interactive reading experience. More advanced students may benefit from following along on a paper copy.

*What objects are visible in both the day and night sky?
Which sky do you like the best and explain why?*

****TEACHER NOTE:** In groups, provide each group with a small portion of the text or an entire reading passage. The amount of text should be considered student reading levels.

Have the students in the group read independently for five - seven minutes.

After students read individually, allow five to seven minutes to discuss information read in their groups.

Encourage students to take notes or draw pictures in the [provided graphic organizer](#).

Students should highlight, underline, circle and or box key phrases, vocabulary or important concepts if working on physical text or online notation tools.

Is the sky always the same?

Review the [claim-evidence-reasoning poster](#) with the students

****TEACHER NOTE:** Provide students with sentence starters by sharing on the board:

■ [K-2 Claim-Evidence-Rea...](#)

Have students write their claim-evidence-reasoning

writing a claim

Have students develop a claim which is their answer to the driving question. Students should use all their knowledge from the phenomenon, inquiry activity, investigation, and information analysis protocol to develop an answer to the question.

writing evidence

Students should provide observational or numerical data as their evidence from their investigation and write a short caption or brief description of the data they provide to support their claim.

Have students use the following template to write their claim-evidence-reasoning (CER)

[K-2 Student Writing Template \(editable\)](#)

[K-2 Student Writing Template \(pdf\)](#)

****TEACHER NOTE:** Have students review the student sample(s) of

active at night?

Teacher will show students a variety of pictures of local/common places. Students will work in pairs to decide whether each picture shows an area during the day or night. Each student pair will hold up a day/night model. [Picture of Sun and Stars](#)

****TEACHER NOTE:**

(Use a picture of the Sun on one side of a card and a picture of the stars on the other with both attached to a popsicle stick.) to indicate what the picture shows.

[Record Observations Document](#) (google doc)

Claim-Evidence-Reasoni... (PDF)

1. *Identify the student's claim in the sample and have the teacher or students write their observations or questions.*

2. *Identify the student's evidence in the sample and have the teacher or students write their observations or questions.*

3. *Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.*

Ask the following questions to students as they analyze the student samples:

Claim-Evidence-Reasoni...

****TEACHER NOTE:** As students review the student samples, they will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

that were in both skies? Name that/them.

Have students create the ground for both day and night. Make the ground by tearing off and gluing green construction paper or by drawing it with crayons.

Have students create a daytime and nighttime sky simultaneously. Include nocturnal and diurnal animals in their appropriate setting.

Ask students which objects can be put on both of their papers and have them add them.

Students will need to work in partner pairs. The teacher should assign partners prior to the beginning of the lesson.

Have students follow the procedure provided in the lab.

****TEACHER NOTE:**

When students have completed their discussion, you will need to allow the students to switch groups to meet other peers that were not initially in their group. Students will share their knowledge with another group of students for 7 - 10 minutes. Students will compare notes from their initial groups.

[See diagram of example](#)

Vocabulary Strategy

claim-evidence-reasoning on Day 2. Have students compare their writing to those students' samples. Ask the following questions:

*How are your thoughts or understanding similar to another writer on the topic?
How are your thoughts or understanding different to another writer on the topic?
What would you like to learn more about? Why?*

Assessment Prep

Prepare students for assessment by reviewing the following Assessment Prep Presentation.

Provide the following guidance:

Ask the students to use what they know about the tasks completed to answer the provided assessment prep question.

- What is the question asking you?
- What do you know about the vocabulary or concept in the question?
- Is this question similar to any investigations or tasks we've completed?
- How can what you've done help you answer this question?
- Just view the assessment question: What is the question asking you?

Guide students to think about how their experience connects to the question.

Using the answer choices provided, ask the students the following:

- Identify a wrong answer: How do I know this answer is incorrect?
- Identify the right answer: How do we know this answer is correct?

Allow the students time to discuss in collaborative groups.

TEACHER NOTE: If students struggle with the question, review it the next day. Do not rush to the next question; instructional time is the only time they have to prepare for the end-of-year assessment.

Labs / Investigations

Mandatory Labs	Explore Learning Gizmo	Mystery Science
Day and Night Sky Model	Science 4Us Earth Space	Mystery Science: Moon and Stars Unit Mystery Science: Moon phases & patterns mini lesson Mystery Science: Sun & daily patterns mini lesson

Additional- Resources/Tasks

Supplemental Labs	Day and Night Sky Mobile Day and Night Sky Model Star Projector Activity
Culminating Performance Task	“What do we see in the day sky that we do not see in the night sky?” CER task “Is the sky always the same?” CER task
STEM Activities	