

Lesson 8: Speaking and Listening: Patterns of the Moon

CCS Standards

- **RI.1.1:** Ask and answer questions about key details in a text.
- **RI.1.2:** Identify the main topic and retell key details of a text.
- **RI.1.4:** Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
- **RI.1.6:** Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
- **RI.1.7:** Use the illustrations and details in a text to describe its key ideas.
- **W.1.8:** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- **SL.1.1a:** Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
- **SL.1.1b:** Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
- **SL.1.4:** Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
- **L.1.1:** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.1.1f:** Use frequently occurring adjectives.
- **L.1.1i:** Use frequently occurring prepositions (e.g., *during*, *beyond*, *toward*).
- **L.1.1j:** Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.
- **L.1.6:** Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*).

Daily Learning Targets

- I can build onto others' ideas while participating in a Science Talk about patterns of the moon. (RI.1.1, RI.1.2, RI.1.4, RI.1.6, RI.1.7, SL.1.1a, SL.1.1b, SL.1.4)
- I can record my observations of videos/images of the sky in the Sky Notebook. (W.1.8, L.1.1f, L.1.1i, L.1.1j, L.1.6)

Ongoing Assessment

- During Work Time A, circulate and observe students as they write independently. At the end of the lesson, collect students' notes to document progress toward W.1.8, RI.1.1, RI.1.2, RI.1.6, and RI.1.7.
- During Work Time B, circulate and listen for students to use the modeled sentence frames and evidence from their notes as they take part in the Science Talk. Note how students are interacting with one another using the Speaking and Listening Checklist. (SL.1.1a, SL.1.1b, and SL.1.4)

Agenda

1. Opening

A. Shared Reading: Reviewing Patterns of the Moon Anchor Chart (5 minutes)

2. Work Time

A. Independent Writing: Patterns of the Moon Notes (10 minutes)

B. Science Talk: “Why Does the Moon Seem to Change?” (20 minutes)

C. Reflecting on Learning (10 minutes)

3. Closing and Assessment

A. Independent Writing: Sky Notebook (10 minutes)

B. Shared Writing: Describing What People Do during the Day (5 minutes)

Teaching Notes

Purpose of lesson and alignment to standards:

- This is the second of two lessons in which students engage in a cycle of inquiry with *Does the Sun Sleep?: Noticing Sun, Moon, and Star Patterns*. Students record their own notes based on information from the focused read-aloud in Lesson 7, and then discuss their understanding of why the moon seems to change shape.
- Note-taking is a new and challenging skill, but an important one to start early. In this lesson, students use a prepared Patterns of the Moon notes sheet to jot down important information to use as evidence during the Science Talk. Some students may choose to copy from the Patterns of the Moon anchor chart and others may use mostly pictures or labels. Encourage all styles of note-taking and remind students about the importance of being able to read and use their notes later.
- During the Science Talk protocol, encourage students to use their individual notes to provide evidence for their scientific claims. Also, remind students to use the sentence frames to add on to, clarify, and extend the thinking of others.
- In Closing A, students independently write in their Sky notebooks, completing familiar prompts for a new image to show progress toward mastery of W.1.8, L.1.1f, L.1.1i, L.1.1j, and L.1.6.
- In Closing B, students take part in a shared writing lesson to introduce a new section of the Sky notebook that asks students to relate their observations of the sky to what people are doing.

How this lesson builds on previous work:

- During the Opening, students review the information added to the Patterns of the Moon anchor chart in Lesson 7. This supports students for when they take their own notes during Work Time A.
- This is the second time students use the Science Talk protocol (introduced in Lesson 6). Consider how familiar students are with this protocol and reallocate time during the lesson as necessary.
- The Sky notebook is used in two ways during this lesson. First, students complete independent writing of the same prompts using a different photograph for observation. Then the student

writing is collected and the teacher introduces a new part of the Sky notebook through the shared writing on the Describing What People Do during the Day recording form.

- Continue to use Goal 1–3 Conversation Cues to promote productive and equitable conversation.

Areas in which students may need additional support:

- Students may need more support in organizing their notes and using them as evidence during the Science Talk protocol. Consider having students use highlighters or sticky notes to designate the most important part(s) of their notes that they would like to share.
- Support students with their oral language during Science Talk by using Conversation Cues, providing sentence stems, and providing wait time for the processing of information.

Down the road:

- Similar to Lessons 7–8, students will follow a similar cycle of inquiry in Lessons 9–10 with a new section of *Does the Sun Sleep?: Noticing Sun, Moon, and Star Patterns* to prepare students for the Unit 2 Assessment in which they select individual notes as evidence when responding to the Unit 2 guiding question: “What patterns can we observe in the sky?”
- In Lesson 9, students will complete a new section of the Sky notebook describing what people do during the day based on the shared writing and will continue their practice with using adjectives (taught in Lessons 2–4) and prepositions (taught in Lessons 5–7).

In advance:

- Prepare:
 - Patterns of the Moon notes sheets on clipboards for Work Time A.
 - Sky notebooks on clipboards for the Closing.
 - Sun photograph 6 in color, if possible.
- Gather and display side by side two or three student exemplars from the What Makes Day and Night notes sheet (completed in Lesson 5) for analysis in Work Time A.
- Pre-distribute colored pencils in the whole group meeting area to ensure a smooth transition to the Closing.
- Strategically group students in small groups of three or four for the Science Talk protocol in Work Time B. Consider grouping students with varying levels of language proficiency. The students with greater language proficiency can serve as models in their groups, initiating discussion and providing implicit sentence frames.
- Review the Science Talk protocol. (Refer to the Classroom Protocols document for the full version of the protocol.)
- Post: Learning targets and applicable anchor charts (see materials list).

Consider using an interactive white board or document camera to display lesson materials.

- Video record students as they take part in the Science Talk protocol in Work Time B to watch with students to evaluate strengths and areas for improvement. Post it on a teacher webpage or on a portfolio app such as Seesaw (<http://web.seesaw.me>) for students to watch at home with families. Most devices (cellphones, tablets, laptop computers) come equipped with free video and audio recording apps or software.
- Create the Describing What People Do during the Day recording form in an online format—for example, a Google Doc—to display and complete, and for families to access at home to reinforce these skills.

Supporting English Language Learners

Supports guided in part by CA ELD Standards 1.I.A.1, 1.I.B.5, 1.I.B.6, 1.I.C.10, 1.I.C.12, 1.II.B.4, and 1.II.B.5

Important points in the lesson itself

- The basic design of this lesson supports ELLs with opportunities to participate in a Science Talk protocol. This will foster content knowledge and English language development through peer interaction.
- ELLs may find the sentence frame “I would like to add to ...” difficult to use. Consider providing additional modeling and think-alouds for using each sentence frame during the Science Talk protocol. Invite students who need lighter support to model using the sentence frames with students who need heavier support. Use Conversation Cues strategically as students prepare to participate in the Science Talk protocol over the next series of lessons and during the assessment. Model using Goal 1–3 Conversation Cues with students that align with the specific Science Talk protocol sentence frames. (Examples: “Do you mean...?” “I think you mean ...” “Who can repeat what your classmate said?”)

Levels of support

For lighter support:

- During the Science Talk protocol in Work Time B, encourage students to use Goal 1 and 2 Conversation Cues with other students to extend and deepen conversations, think with others, and enhance language development. (Example: “Did you mean _____?”)

For heavier support:

- During Work Time A, distribute a partially filled in copy of the Patterns of the Moon student notes. This will provide students with models for the kind of information they should enter, while relieving the volume of writing required.
- During the Science Talk protocol in Work Time B, provide students with individual copies of the anchor chart. In their groups, students can follow along by placing a finger on each step as it occurs. While circulating, ensure that students are following along accurately.

Universal Design for Learning

- **Multiple Means of Representation (MMR):** When reflecting on their learning in Work Time C, students will need to generalize the learning around patterns of the moon. Activate prior knowledge before asking students to share, by recalling learning from previous lessons. For additional support, provide a visual display of the question: “What pattern of the moon have we investigated over the past few lessons?”
- **Multiple Means of Action & Expression (MMAE):** During the Science Talk protocol, individual students are asked to share ideas with a small group. As students share, provide options for expression and communication by using sentence frames. (Example: “I like what Meghan said about _____. It made me think of what I learned about _____.”)
- **Multiple Means of Engagement (MME):** Some students may require support with limiting distractions during independent writing (e.g., sound-canceling headphones or dividers between workspaces). During the writing, provide scaffolds that support executive function skills, self-regulation, and students’ abilities to monitor progress (e.g., visual prompts, reminders checklists, or a rubric).

Vocabulary

Key:

(L): Lesson-Specific Vocabulary

(T): Text-Specific Vocabulary

(W): Vocabulary Used in Writing

Review:

- pattern, shine, change, crescent, gibbous, half-moon (L), full moon, seems to, appears to, phase (L)

Materials

- ✓ Patterns of the Moon anchor chart (begun in Lesson 7)
- ✓ Patterns of the Moon notes sheet (one per student and one to display)
- ✓ *What Makes Day and Night* notes sheet (two to display; see Teaching Notes)
- ✓ Pencils (one per student)
- ✓ Sun, Moon, and Stars Word Wall (begun in Unit 1, Lesson 1)
- ✓ *Does the Sun Sleep?: Noticing Sun, Moon, and Star Patterns* (one to display)
- ✓ Science Talk Protocol anchor chart (begun in Lesson 6)
- ✓ Equity sticks (class set; one per student)
- ✓ Speaking and Listening Checklist (for teacher reference; see Assessment Overview and Resources)
- ✓ Unit 2 Guiding Question anchor chart (begun in Lesson 2; added to during Work Time C; see supporting materials)

- ✓ Sky notebook (from Lesson 4; page 7; one per student and one to display)
- ✓ Sun photograph 6 (one to display)
- ✓ Colored pencils (class set; variety of colors per student)
- ✓ Prepositions anchor chart (begun in Lesson 7)
- ✓ Adjectives anchor chart (begun in Lesson 4)
- ✓ Describing What People Do during the Day recording form (one for teacher modeling and one to display)

Opening

A. Shared Reading: Reviewing Patterns of the Moon Anchor Chart (5 minutes)

- Direct students' attention to the **Patterns of the Moon anchor chart** and review the big ideas.
- Tell students that today they will use the information from this anchor chart to write their own personal notes about why the moon's shape seems to change. Then they will use these notes to have a Science Talk with their classmates.
- Invite students to turn and talk with an elbow partner:

“What information do you think is most important to know when answering the question ‘Why does the moon seem to change shape?’” (Responses will vary, but may include: that the sun lights the moon and we can see only the part that is lit up; that the moon isn't changing, but what we see changes because of the sunlight; etc.)
- Circulate and listen in as students share with their partner. Note trends in responses (e.g., everyone is talking about the sun lighting the moon) and mark them on the anchor chart with a star.
- Redirect students' attention to the Patterns of the Moon anchor chart and point out the starred note(s).
- Tell students that next they will record their own notes about why the moon seems to change, and they might want to include a note, or notes, like the one(s) starred on the anchor chart.

Meeting Students' Needs

- When circulating and listening in during the turn and talk, scaffold partner conversations as needed. Some students may benefit from explicit prompting or a sentence frame. (Examples: “I think it is important to know that the sun ____.” or “I think it is important to know that the moon ____.”) (MMAE)
- For ELLs: Some students may find the following question complex: “What information do you think is most important to know when answering the question: ‘Why does the moon seem to change shape?’” Rephrase the question as necessary to illicit responses. Then invite students to rephrase the question in their own words. (Examples: “Why does the moon seem to change?” “What makes the moon look like it is changing?”)

Work Time

A. Independent Writing: Patterns of the Moon Notes (10 minutes)

- Display the **Patterns of the Moon notes sheet** and read the prompt aloud:
 - “Why does the moon seem to change?”
- Remind students that they need to record their notes in a way that is useful to them, maybe with pictures and only a few words, so they can read from their notes and use them as evidence in the Science Talk. They should record only the information that they think is most important.
- Display the preselected *What Makes Day and Night* notes sheets.
- Give students about a minute to look at the exemplars. Then invite students to turn and talk to an elbow partner:

“What do you notice about these notes that makes them a good example of note-taking?”
(There are a lot of pictures. The pictures have labels. There are words to explain it.)
- If productive, cue students to clarify the conversation by confirming what they mean:

“So, do you mean ____?” (Responses will vary.)
- Using a total participation technique, invite responses from the group.
- Remind students that as they record their notes, they should focus on drawing quick sketches that will help them explain why the moon seems to change, and writing words that are clear and easy to reread.
- Distribute **pencils** and the prepared clipboards with Patterns of the Moon notes sheets.
- Focus students on the prompt. Reread it aloud and invite them to begin writing their individual notes.
- Circulate and support students as they write. Remind them to use the Patterns of the Moon anchor chart and **Sun, Moon, and Stars Word Wall** to help them while writing. If students are having a difficult time explaining their ideas, invite them to look again at *Does the Sun Sleep?: Noticing Sun, Moon, and Stars Patterns* and jot down what they see or hear that they want to record.
- When 2 minutes remain, provide students with a time reminder and encourage them to finish up their Patterns of the Moon notes sheet.
- Signal all students to stop writing through the use of a designated sound.

Meeting Students' Needs

- For students who may need additional support recording their ideas in writing: Provide a partially filled-in or guided Patterns of the Moon notes sheet to help students know what to record. (MMAE)
- For ELLs: Consider adding an additional note to the What Makes Day and Night student notes exemplar. Think aloud while modeling adding the note, or complete it as a shared or interactive writing experience.
- For ELLs: It may help some students to verbalize their thinking with peers. Before inviting students to add notes to their Patterns of the Moon notes sheet, invite them to turn to a partner and share one note they are thinking of adding.

Challenge them to explain their reasoning. (Example: "I am adding a picture of the sun because it will help me remember that the sun's light shines on the moon.")

Work Time

B. Science Talk: "Why Does the Moon Seem to Change?" (20 minutes)

- Tell students they will now participate in a Science Talk in small groups to answer the question:
 - "Why does the moon seem to change?"
- Remind them that they used this protocol in Lesson 6 and review as necessary using the **Science Talk Protocol anchor chart**. (Refer to the Classroom Protocols document for the full version of the protocol.)
- Invite students to take out their Patterns of the Moon notes sheets. Remind them that they will use these notes and take turns responding to their group members' ideas.
- Direct students' attention to the learning targets and read the first one aloud:

"I can build onto others' ideas while participating in a Science Talk about patterns of the moon."
- Remind students that in order to work toward this target, they should try using a sentence frame as they respond to their classmates.
- Review the previously taught sentence frames:
 - "I think he/she means _____."
 - "I'd like to add _____."
 - "This makes me think _____ because _____."
- Use **equity sticks** to select two student volunteers to model how to build onto a group member's idea:
- Sit or stand face-to-face with the volunteers.
- Ask one volunteer:

"Why does the moon seem to change?"
- After the student answers, think aloud: "I heard what she said. I will reread my notes to help me add new details to what he said. Let me think."
- Practice using the sentence frames to respond to the volunteer's answer. Say: "I would like to add ..."
- Turn to the second volunteer. Tell the class: "This partner has heard what ____ said and what I have said. Now he will think about what he wants to add on."
- Invite the second volunteer to respond using one of the sentence frames.
- Using a total participation technique, invite responses from the group:

"How will you show your partner you are listening to him or her?" (use eye contact; answer the questions they ask me)
- Invite students to take their Patterns of the Moon notes sheet and move into pre-determined groups, assigning each group to a different area of the room.
- Guide students through the protocol.

- Circulate to observe students as they discuss and gather data on SL.1.1a, SL.1.1b, SL.1.4, and SL.1.6 using the **Speaking and Listening Checklist**. Prompt students with questions to help them expand on their ideas (Examples: “What is causing the moon to shine?” “Is the moon changing shape?” “Why or why not?” “How does the evidence from your notes help you explain this?”)
- When 2 minutes remain, give students a time reminder and encourage them to finish up their Science Talks.
- Signal all students to stop through the use of a designated sound.
- Collect students’ Patterns of the Moon notes sheets.
- As time permits, provide specific, positive feedback about students’ integrity during the Science Talk. (Example: “Andres, you reminded Ruth that we are talking about the moon to help her stay on task!”)

Meeting Students’ Needs

- For ELLs: Create groups with varying levels of language proficiency. The students with greater language proficiency can serve as models in the group, initiating discussions and providing implicit sentence frames. If possible, consider grouping students who speak the same home language together to help one another interpret and comprehend the conversation in their home languages.
- For ELLs: It may take longer for some students to process language and follow the conversation during the Science Talk. Encourage students to speak up when they would like to hear something repeated. Empower them with questions they can ask to regulate the pace of the conversation. (Examples: “Can you please repeat what you said?” “Can you please speak more slowly?”)
- During the Science Talk, support communication and engagement by organizing students with strategic partners to ensure they have a strong, politely helpful peer model to support their efforts at participation in the protocol using their notes sheet. (MME)

Work Time

C. Reflecting on Learning (10 minutes)

- Tell students they will now add their learning to the **Unit 2 Guiding Question anchor chart**.
- Direct students’ attention to the Unit 2 Guiding Question anchor chart and review the information added in previous lessons.
- Using a total participation technique, invite responses from the group:
“What pattern of the moon have we investigated over the past few lessons?” (The moon seems to change shape.)
- As students share out, clarify and capture their responses on the Unit 2 Guiding Question anchor chart.
- Sketch a quick illustration of this new information on the Unit 2 Guiding Question anchor chart.

- Once the chart is complete, help students synthesize their learning by rereading the previous information and new information added to the anchor chart.
- Give students specific, positive feedback on their ability to work hard and discuss these big scientific ideas. With excitement, share that they will learn about another pattern seen in the sky in the next lesson.

Meeting Students' Needs

- After completing the Unit 2 Guiding Question anchor chart, foster a sense of community and provide options for physical action by inviting the whole class to join you in a special applause (e.g., silent cheer, firecracker, raise the roof, hip-hip hooray). (MMAE, MME)
- For ELLs: Briefly review the Mini Language Dive from Lesson 2. Invite students to rephrase the Unit 2 guiding question in their own words before reviewing the anchor chart. (Example: What happens again and again in the sky?)

Closing and Assessment

A. Independent Writing: Sky Notebook (10 minutes)

- Direct students' attention to the posted learning targets and read the second one aloud:

"I can record my observations of videos/images of the sky in the Sky notebook."
- Remind students that they will be writing in the Sky notebooks to reach this target.
- Display page 7 of the **Sky notebook** and **sun photograph 6**.
- Tell students that similar to previous lessons, they will use the sun photograph to complete this page in their Sky notebook .
- Follow the same process as in previous lessons to distribute notebooks, pencils, and **colored pencils**, and guide students to complete this page. Remind students to use the **Prepositions anchor chart** and **Adjectives anchor chart**, and the Sun, Moon, and Stars Word Wall as necessary.
- When 2 minutes remain, provide students with a time reminder and encourage them to finish up.
- Signal all students to stop writing through the use of a designated sound. Collect students' Sky notebooks.

Meeting Students' Needs

- During independent writing, provide options for visual perception by offering individual copies of the Prepositions anchor chart and Adjectives anchor chart for students who may need support with using far-point display. (MMR)
- For ELLs: Provide students with a sentence frame to support their writing in their Sky notebooks. (Example: "The moon is _____ the horizon.")
- For ELLs: Before they begin independent work on Sky notebooks, invite students to briefly practice formulating sentences using adjectives and prepositions using sentence frames, the Preposition and Adjective Construction boards, and the Preposition and Adjectives anchor charts.

Closing and Assessment

B. Shared Writing: Describing What People Do during the Day (5 minutes)

- Tell students that now they will learn a new part of the Sky notebook through shared writing.
- Display the Describing What People Do during the Day recording form and read the prompt aloud:

“What are people doing?”

- Direct students’ attention back to the sun photograph and say: “We are going to use this photograph to think about what people are doing when the sun looks like this and is in this position.”
- Begin writing the words “People are ...” on the recording form. Think aloud about how you can use the word *people* from the prompt to write it correctly in the answer.
- If productive, cue students with a challenge:

“Can you figure out what people are doing when the sun looks like this? I’ll give you time to think and discuss with a partner.” (People are cooking dinner. People are walking home from school.)

- Ask:

“What are people doing when the sun looks like this?” (People are cooking dinner; people are walking home from school; etc.)

- Cold call on one to two students to share out.
- Select one response to record on the paper. Draw a quick sketch to match the written response.
- If time permits, invite students to call out the proper letters and words needed for the sentence and write down the complete response. Model using the Sun, Moon, and Stars Word Wall and High-Frequency Word Wall as a resource while responding.
- Reread the prompt and the written response to clarify any misconceptions.
- Give students specific, positive feedback on their independent and shared writing today (Example: “Eric, I noticed that you were deciding between two adjectives to use, and settled on glowing because it matched the picture best. Diana, you helped find the high-frequency word go during our shared writing—thank you.”)

Meeting Students’ Needs

- Before shared writing, support students’ expressive skills and ability to transfer learning by offering index cards with pictures of what people are doing at different times of the day to select as they participate. (MMAE)
- For ELLs: To make the question “What are people doing?” more concrete, display illustrations from *Summer Sun Risin’*. Briefly discuss what the boy and his family did during different times of the day. Provide some think time before eliciting ideas from the class.