

Lesson 10: Speaking and Listening: Patterns of the Stars



CCS Standards

- **RI.1.1:** Ask and answer questions about key details in a text.
- **RI.1.2:** Retell stories, including key details, and demonstrate understanding of their central message or lesson.
- **RI.1.4:** Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.
- **RI.1.6:** Identify who is telling the story at various points in a text.
- **RI.1.7:** Use illustrations and details in a story to describe its characters, setting, or events.
- **SL.1.1:** Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups.
- **SL.1.4:** Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
- **W.1.8:** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- **L.1.1:** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **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 stars. (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 independently writing their individual notes. 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 to specifically focus on SL.1.1a, SL.1.1b, and SL.1.4 (see Assessment Overview and Resources).
- During the Closing, circulate and observe students independently writing in their Sky notebook. At the end of the lesson, collect students' writing samples to document progress toward W.1.8, L.1.1f, L.1.1i, L.1.1j, and L.1.6.

Agenda

1. Opening

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

2. Work Time

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

B. Science Talk: “Why Can’t We See the Stars during the Day?” (15 minutes)

C. Reflecting on Learning (10 minutes)

3. Closing and Assessment

A. Reflecting on Integrity (5 minutes)

B. Independent Writing: Sky Notebook (15 minutes)

Teaching Notes

Purpose of lesson and alignment to standards:

- This lesson follows the pattern of Lesson 8. 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* (pages 16–21). Students record their own notes based on information from the focused read-aloud in Lesson 9, and then discuss their understanding of why stars are not visible during the day.
- During the Science Talk protocol, students use their individual notes to provide evidence for their scientific claims. Students also use the sentence frames to add on to, clarify, and extend the thinking of others.
- In Work Time C, students reflect on their understanding of stars and continue to add to the Unit 2 Guiding Question anchor chart through shared writing.

How this lesson builds on previous work:

- During the Opening, students review the class notes from Lesson 9 to support their own note-taking practice in Work Time A.
- This is the third time students have taken part in the Science Talk protocol—previously used in Lessons 6 and 8. Expect them to contribute more openly and fluidly to the conversations and continue to encourage the use of sentence frames.
- In Closing A, students Think-Pair-Share to reflect on their use of integrity during the lesson. This self-reflection builds upon students’ understanding and experience with integrity in past lessons.
- This is the first lesson in which students independently complete all parts of the Sky notebook. Throughout the unit, each part has been introduced through shared writing and practiced independently.
- Throughout Units 1 and 2, students were introduced to various total participation techniques. When following the directive to “Use a total participation technique, invite responses from the group,” use one of these techniques or another familiar technique to encourage all students to participate.
- 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.
- Students may need additional support completing the Sky notebook independently. Remind them to use the tools around the room such as the Sun, Moon, and Stars Word Wall, the Prepositions anchor chart, and the High-Frequency Word Wall.

Down the road:

- In future lessons, students will continue their practice with using prepositions (taught in Lessons 5–7) and adjectives (taught in Lessons 2–4) while writing in the Sky notebook.
- In Lesson 12, students participate in the Unit 2 Assessment. They will follow a similar process by first selecting notes as evidence in response to the Unit 2 guiding question—“What patterns can we observe in the sky?”—and then using those notes as references in a small group Science Talk protocol.

In advance:

- Prepare:
 - Patterns of the Stars notes sheets on clipboards for Work Time A.
 - Sky notebooks on clipboards for the Closing.
 - Sun photograph 7 in color, if possible.
- Pre-distribute colored pencils at student workspaces to ensure a smooth transition to independent writing in the Closing.
- Strategically group students in 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.

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 it challenging to understand the explanation and intention behind taking notes. Make this transparent as possible by reminding students of the purpose. Model trying to participate in a Science Talk without notes, then model and think aloud using notes to formulate ideas to share.

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 _____?”)
- During the Science Talk protocol in Work Time B, if students are grouped with others of varied proficiency levels, consider changing groups so students are placed in groups of similar proficiency. This will foster independence while providing the opportunity to assess progress in speaking and listening.

For heavier support:

- During Work Time A, distribute a partially filled-in copy of the Patterns of the Stars 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):** In order to set themselves up for success for the independent writing during Work Time A, students will need to generalize the skills that they learned from previous lessons. To activate prior knowledge before students begin writing, recall the learning from the previous sessions and the similar independent writing that they have already completed. Additionally, present the directions both visually and verbally and support comprehension by displaying an exemplar notes sheet.
- **Multiple Means of Action & Expression (MMAE):** During the Science Talk protocol, students may need support in setting appropriate goals for their effort and the level of difficulty expected. Appropriate goal-setting supports development of executive skills and strategies. Offer scaffolds for students learning to set appropriate personal goals, such as a checklist with three goals for the Science Talk. (Examples: “I can listen to group members without

interrupting” “I can share my ideas by using my notes” “I can add one idea after a group member shares.”)

- **Multiple Means of Engagement (MME):** Although holding high expectations is important, be aware that sometimes these expectations can raise student anxiety. During independent writing, emphasize the importance of process and effort by discussing how even when you try your best to write neatly, you can sometimes make a mistake and that is okay.

Vocabulary

Key:

(L): Lesson-Specific Vocabulary

(T): Text-Specific Vocabulary

(W): Vocabulary Used in Writing

Review:

- pattern, stars, sun, shine (L)

Materials

- ✓ Patterns of the Stars anchor chart (begun in Lesson 7)
- ✓ Patterns of the Stars notes sheet (one per student and one to display)
- ✓ 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)
- ✓ 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)
- ✓ Working to Become Ethical People anchor chart (begun in Unit 1, Lesson 4)
- ✓ Sky notebook (from Lesson 4; pages 9–10; one per student and one to display)
- ✓ Sun photograph 7 (one to display)
- ✓ Prepositions anchor chart (begun in Lesson 7)
- ✓ Colored pencils (class set; variety of colors per student)
- ✓ Adjectives anchor chart (begun in Lesson 4)

Opening

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

- Direct students’ attention to the **Patterns of the Stars anchor chart** and review the big ideas.

- Remind students that, as in previous lessons, they will use the information from this anchor chart to write their own notes about why we cannot see stars during the day. 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 can’t we see stars during the day?’” (Responses will vary, but may include: Stars are very far away, so their light is dim; the sun’s light is so bright that it outshines the starlight, etc.)
- Circulate and listen in as students share with their partner. Note trends in responses (e.g., everyone is talking about the sun outshining the stars) and mark those trends on the anchor chart with a star.
- Redirect students’ attention to the Patterns of the Stars anchor chart and point out the starred note(s).
- Tell students that now they will record their own notes about why we can’t see stars during the day, and they might want to include a note, or notes, like the one starred on the anchor chart.

Meeting Students’ Needs

- As students turn and talk, support communication and engagement by pairing students with strategic partners to ensure they have a strong, politely helpful partner to support their efforts at sharing the information they think is most important in answering the question. (MME)
- 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 can’t we see stars during the day?’” Rephrase the question as necessary to illicit responses. Then invite students to rephrase the question in their own words. (Examples: “Why can’t we see stars in the sky?” “What makes the stars disappear in day and reappear at night?”)

Work Time

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

- Display the **Patterns of the Stars notes sheet** and read the prompt aloud:
 - “Why can’t we see stars during the day?”
- Remind students that they need to record their notes in a way that is useful to them so that 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.
- Invite students to whisper a response into their hand:
“What is one important piece of information you plan to write on your Patterns of the Stars notes sheet?” (Responses will vary.)
- Remind students that as they record their notes, they should draw quick sketches that will help them explain why we can’t see stars during the day, and write words that are clear and easy to reread.

- Distribute **pencils** and the prepared clipboards with Patterns of the Stars notes sheets.
- Tell students they may begin writing their own notes to answer the question:
Why can't we see stars during the day?
- 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 Stars 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 Stars notes sheet to help students know what to record. (MMAE)
- For ELLs: Consider reviewing the What Makes Day and Night student notes exemplar and adding an additional note to it. 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 Stars student notes, 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 a flashlight because it will help me remember our demonstration.")

Work Time

B. Science Talk: "Why Can't We See the Stars during the Day?" (15 minutes)

- Tell students they will now use their notes to participate in a Science Talk in small groups to answer the question:
 - "Why can't we see stars during the day?"
- Remind them that they used this protocol in Lessons 6 and 8 and review as necessary using the **Science Talk Protocol anchor chart**. (Refer to the Classroom Protocols document for the full version of the protocol.)
- 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 stars."
- Remind students of the sentence frames during the previous Science Talks:
 - "I think he/she means _____."
 - "I'd like to add _____."
 - "This makes me think _____."

- Invite students to repeat each sentence frame as you read it aloud.
- Invite students to take their Patterns of the Stars notes sheets and move into pre-determined groups, assigning each group to a different area of the room.
- Guide students through the protocol. Circulate and use the **Speaking and Listening Checklist** to track student progress. Prompt students with questions to help them expand on their ideas. (Examples: “Do stars disappear during the day?” “Why is starlight so dim compared to the sun?” “Why is sunlight so bright?”)
- Refocus whole group and collect students’ notes sheets.
- If productive, cue students to think about their thinking:
“What things did you do today that will help you succeed during the Science Talk in the Unit 2 Assessment? I’ll give you time to think and discuss with a partner.” (Responses will vary.)
- Provide specific, positive feedback about students’ use of evidence during the Science Talk protocol. (Example: “Aisha, I saw you show a diagram that you had drawn to your group members to demonstrate how the sun is close to earth and other stars are very far away.”)

Meeting Students’ Needs

- Before students begin the Science Talk, help them anticipate and manage frustration by modeling what to do if they get stuck on building onto others’ ideas. Consider providing index cards of previously taught sentence frames as support for communication and frustration. (MMR, MMAE, MME)
- 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 modeling the 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?”)

Work Time

C. Reflecting on Learning (10 minutes)

- Tell students that they will now add their learning to the **Unit 2 Guiding Question anchor chart**.
- Follow the same process used in Lesson 8 to:
 - Review the current anchor chart.
 - Ask students to consider:

“What is a pattern?” (something that repeats again and again)

“What pattern of the stars have we investigated over the past few lessons?” (We can see stars at night, but not during the day.)

- Add students’ responses and sketches to the anchor chart.
- Reread the entire anchor chart.
- With excitement, share that they will get a chance to show what they know as they prepare for a final Science Talk in the next few lessons.

Meeting Students’ Needs

- When using a total participation technique, minimize discomfort and/or perceived threats and distractions by alerting individual students that you are going to call on them next. (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. Reflecting on Integrity (5 minutes)

- Direct students’ attention to the **Working to Become Ethical People anchor chart** and review the big ideas.
- Tell students that today they are going to reflect on their use of integrity during the Science Talk protocol.
- Using a total participation technique, invite responses from the group:
“What does it mean to have integrity?” (to do the right thing even when it’s hard)
- Invite students to Think-Pair-Share with an elbow partner:
“What is one way you noticed yourself or a classmate showing integrity during the Science Talk protocol?” (Answers will vary, but may include something like: I showed integrity when I stayed with my group instead of going to talk with my other friends.)
- Circulate and listen in as students share with one another.
- Ask students to return to their seats. Share a few great examples of integrity that you heard while listening to students talk. (Example: “Juan said he noticed Amelia showing integrity when she focused on his response and added on with more information.”)
- If productive, cue students to think about their thinking:
“How does our Sky notebook add to your understanding of adjectives and prepositions? I’ll give you time to think and discuss with a partner.” (Responses will vary.)

Meeting Students’ Needs

- After the Think-Pair-Share, foster a sense of community and provide options for physical action by inviting the whole class to join you in a special appreciation and recognition for the integrity they showed during the Science Talk (e.g., silent cheer, raise the roof, firecracker, hip-hip hooray). (MMAE, MME)
- For ELLs: Provide options for responding to the prompt by offering different sentence frames. (Examples: “One way I showed integrity was ____.” “I showed

integrity by ____." "It was hard to do the right thing because _____. But did the right thing because _____.")

Closing and Assessment

B. Independent Writing: Sky notebook (15 minutes)

- Direct students' attention to the 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 their Sky notebooks to reach this target
- Display pages 9–10 of the **Sky notebook** and **sun photograph 7** and use the same process as in previous lessons to distribute notebooks and **colored pencils** and to guide students to complete this page. Remind students to use the **Prepositions anchor chart**, the **Adjectives anchor chart**, and the Sun, Moon, and Stars Word Wall as necessary.
- Signal all students to stop writing through the use of a designated sound and collect their Sky notebooks.
- Share with students that in the next lesson they are going to gather their notes and plan to discuss the different patterns they have learned about and observed in the sky.

Meeting Students' Needs

- Before students begin independent writing, support fine motor development by providing supportive tools for writing (e.g., pencil grips, slanted desks, or alternate writing utensils). (MMAE)
- For ELLs: Briefly discuss the photograph to ensure that all students are prepared to write about the different objects in it. Label relevant objects in the photograph to support students as they write. (Example: "Does anyone know what this is? That's right, it is a bridge. Alfonso, can you label the bridge? And how about the water? I think it is a river. And these are buildings.")