Lesson 8: Small Group Research: Using Text to Gather Information about Insect Pollinators

CCSS

- **RI.2.1:** Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text
- **RI.2.2:** Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
- **RI.2.3:** Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- **RI.2.4:** Determine the meaning of words and phrases in a text relevant to a *grade 2 topic or subject area*.
- **RI.2.5:** Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
- **RI.2.7:** Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- **W.2.7:** Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).
- **SL.2.2:** Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
- **L.2.1:** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.2.1e:** Use adjectives and adverbs, and choose between them depending on what is to be modified.

Daily Learning Targets

- I can collaborate with classmates to research information about my pollinator using the text *What Is Pollination?* (RI.2.1, RI.2.2, RI.2.3, RI.2.4, RI.2.5, RI.2.7)
- I can create and label a scientific drawing of my pollinator. (W.2.7)

Ongoing Assessment

- During the research reading in Work Time A, continue to use the Reading Informational Text Checklist (RI.2.1, RI.2.2, RI.2.3, RI.2.4, RI.2.5, RI.2.6, RI.2.7) to track students' progress toward these reading standards (see Assessment Overview and Resources).
- During the Closing, continue to circulate and listen for students to share details about their scientific drawing and what they learned about their pollinator through their research. (W.2.7, SL.2.2)

Agenda

1. **Opening**
   A. Song and Movement: "It's Pollination Time," Version 3 (5 minutes)
2. **Work Time**
   A. Reading to Research Insect Pollinators: *What Is Pollination?*, pages 14, 18–23 (15 minutes)
   B. Shared Writing: Research about Pollinators: Class Notes (20 minutes)
   C. Scientific Drawing of Our Pollinators: Shape (15 minutes)
3. **Closing and Assessment**
   A. Reflecting on Learning (5 minutes)

Teaching Notes

Purpose of lesson and alignment to standards:

- Lesson 8 marks the beginning of a new research cycle. Small groups, each focused on different insect pollinators, will use the text *What Is Pollination?* to collect information that is most relevant to the Unit 2 guiding question: "How do pollinators help plants grow and survive?" (RI.2.1, RI.2.4, W.2.7, SL.2.2).
- In Work Time B, the teacher summarizes information collected by students and records it on the class notes chart before students copy the information into their own notes. This step allows student to see a model of effective note-taking and ensures accurate information for writing sessions later in this unit (RI.2.1, RI.2.7, W.2.7).
- During the Opening, students work with Version 3 of the "It's Pollination Time" song to continue developing their understanding of adjectives and adverbs in context (L.2.1e).

How this lesson builds on previous work:

- In Lessons 8 and 9, students mirror the research process from Lesson 5–7 (whole group, about bees) in small groups using text and photos for specific pollinators. Recall that in Lesson 10, they will process this information as they prepare for a Science Talk.
- In Work Time C, students create a new scientific drawing of their insect pollinator. Like the scientific drawings students did of bees in Lessons 5–7, the purpose of this drawing is to practice the skill of observing the basic shapes and sizes visible within a photograph and to learn about their pollinator by closely observing photographs. Students record their observations and write a sentence to describe new learning about their pollinator (W.2.7).

Areas in which students may need additional support:

- Conducting the research reading during Work Time A may be challenging for some students. Consider strategic pairs or trios of students who can support each other in accessing the text and taking notes about the information they find. Pairs and trios can then share their information during the teacher-led synthesis of class notes during Work Time B.

Down the road:

- During Work Time A, students work in small groups to collect information relevant to the Unit 2 guiding question using the text *What Is Pollination?* In Lesson 9, they will continue the research cycle with photos of their specific pollinator, and in Lesson 10 they will process the information gathered to prepare for a Science Talk. The information they record in Work Time B will ultimately be used to guide their writing for the Unit 2 Assessment.
- During Unit 3, students will revise drafts of scientific drawings that they create in Lessons 8 and 9 in preparation for their performance task.

In advance:

- Strategically group students into three groups for group research in Work Time A: butterflies/moths, flies/wasps, and beetles. Within each small group, consider assigning partners/trios to work together during group research.
- Pre-distribute students' notebooks, texts, and sticky notes in places around the room where they will work with their group during Work Time A.
- Prepare pollinator photographs for Work Time C by printing them in color, if possible (see supporting Materials).
- Preview "It's Pollination Time," Version 3 to familiarize yourself with it.
- Post: Learning targets; "It's Pollination Time," Version 3; and applicable anchor charts.

Technology & Multimedia

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

- Continue to use the technology tools recommended throughout Modules 1 and 2 to create anchor charts to share with families; to record students as they participate in discussions and protocols to review with students later and to share with families; and for students to listen to and annotate text, record ideas on note-catchers, and word-process writing.

Supporting English Language Learners

Supports guided in part by CA ELD Standards 2.I.B.6, 2.I.C.10, 2.I.C.12, 2.II.A.1, 2.II.B.4, and 2.II.B.5

Important points in the lesson itself

- The basic design of this lesson supports ELLs with opportunities to participate in shared note-taking activities to support research skills.
- ELLs may find it challenging to participate in small groups with equal contribution if it takes them longer to process language throughout the activity. Consider assigning roles to different group members to support equity of participation. (Examples: reader recorder, summarizer)

Levels of support

For lighter support:

- During Work Time B, in their research groups, invite students to use Goals 1–4 Conversation Cues as they collaborate with one another.

For heavier support:

- In preparation for Opening A, write and color-code the adjectives (yellow) and adverbs (pink) from the word bank on changeable sentence strips. Students can experiment with placing each word in different positions, and they can match colors with the circled nouns and verbs for added support.

Universal Design for Learning

- **Multiple Means of Representation (MMR):** Continue to vary the ways in which you convey expectations for each activity or task. Consider engaging in a clarifying discussion about the directions and creating a visual display of the steps for each activity.
- **Multiple Means of Action & Expression (MMAE):** Continue to support students in setting appropriate goals for their effort and the level of difficulty expected.
- **Multiple Means of Engagement (MME):** During this lesson, some students may need additional support with sustained effort. Continue to provide targeted feedback that encourages sustained effort during each activity and encourages the use of specific supports and strategies, such as the Word Wall and peer support.

Vocabulary

Key:

(L): Lesson-Specific Vocabulary

(T): Text-Specific Vocabulary

(W): Vocabulary Used in Writing

Review

- adjective, adverb, verb, noun, text, research, pollinator (L)

Materials

- ☑ "It's Pollination Time," Version 3 (one to display)
- ☑ *What Is Pollination?* (one per pair and one to display)
- ☑ Working to Become Effective Learners anchor chart (begun in Module 1)
- ☑ Unit 2 Guiding Question anchor chart (begun in Lesson 2)
- ☑ Research about Pollinators: Class Notes (new; co-created with students during Work Time B; see supporting Materials)
- ☑ Research about Bees: Class Notes (completed in Lesson 7)
- ☑ Sticky notes (three to four per student)
- ☑ Plants and Pollinators research notebook, Part II (from Lesson 1; pages 10–11; one per student and one to display)
- ☑ Plants and Pollinators research notebook, Part II (from Lesson 1; example, for teacher reference)

- ☑ Text Features anchor chart (begun in Unit 1, Lesson 3)
- ☑ Research about Pollinators: Class Notes (example, for teacher reference)
- ☑ Scientific Drawing anchor chart (begun in Lesson 5)
- ☑ Butterflies and moths photographs #1–2 (enough for half of this research group to have photograph #1 and the other half to have photograph #2)
- ☑ Wasps and flies photographs #1–2 (enough for half of this research group to have photograph #1 and the other half to have photograph #2)
- ☑ Beetles photographs #1–2 (enough for half of this research group to have photograph #1 and the other half to have photograph #2)
- ☑ What Researchers Do anchor chart (begun in Unit 1, Lesson 2)

Opening

A. Song and Movement: "It's Pollination Time," Version 3 (5 minutes)

- Gather students whole group.
- Remind students that singing "It's Pollination Time" helps us think about the ways we can describe pollinators. Tell students that you have removed more words from the song and will need their help to replace them.
- Display **"It's Pollination Time," Version 3** and review what the adjectives and adverbs describe as needed.
- Guide students through determining whether the blank spaces are describing nouns or verbs. Circle nouns in one color and verbs in another so students can see a visual distinction between the nouns and verbs that are modified by each blank space.
- Invite students to help fill in the blank using the word bank on "It's Pollination Time," Version 3. Consider having half of the class focus on missing adjectives and the other half on adverbs.
- Call on students to help fill in the blanks, clarifying their choices before adding new adjectives and adverbs to the chart.
- Invite students to chorally sing "It's Pollination Time," Version 3 using the movements created in Lesson 6.

Meeting Students' Needs

- For ELLs and students who may need additional support with comprehension: (Adverb Word Order) Remind students that while adjectives must come before the nouns they describe, adverbs can come before or after the verbs they describe. Demonstrate using some of the adverbs in the song in both positions. (MMR)
- For ELLs: (Acting Out Adverbs) Remind students that adverbs explain how an action happens. Invite students to pretend they are bees slurping nectar gently. Then invite students to pretend they are slurping nectar *loudly*.

Work Time

A. Reading to Research Insect Pollinators: *What Is Pollination?*, Pages 14, 18–23 (15 minutes)

- Refocus whole group. Remind students that at the end of Unit 3, they will be presenting the secret of plants and pollinators to an audience as part of their Celebration of Learning!
- Tell students that today they will research in small groups using the text *What Is Pollination?*. Point out that this is an important step in preparing for the performance task when they will share their scientific drawings and informational text about pollinators with their families at our Celebration of Learning.
- Direct students' attention to the posted learning targets and read the first one aloud:

  ***"I can collaborate with classmates to research information about my pollinator using the text* What Is Pollination?"**
- Tell students that just like when they researched bees as a class, small groups will use the text *What is Pollination?* to find information about different insect pollinators.
- If productive, cue students with a challenge:

  "Can you figure out why we are finding all of this information from the texts? I'll give you time to think and discuss with a partner." (Responses will vary, but may include: to research the guiding question; to find the right information that connects to the focus statement; to make sure our information is correct)
- Point out the word *collaborate* in the first learning target. Tell students that to gather information to answer the research question, they need to collaborate in a small group.
- Turn and Talk:

  "What does it mean to collaborate?" (work together; build on each other's ideas)

  What are some ways that you can collaborate with others in a group?" (share your ideas; listen to others; read together and share our thinking)
- Listen in as pairs discuss collaboration, noting any responses to reinforce with the whole group.
- Direct students' attention to the **Working to Become Effective Learners anchor chart** and briefly review *collaboration*.
- Move students into their pre-determined research groups.
- Direct students' attention to the **Unit 2 Guiding Question anchor chart** and read it aloud.
  - "How do pollinators help plants grow and survive?"
- Point out that the word *pollinators* could be replaced by *butterflies/moths*, *flies/wasps*, or *beetles* depending on which pollinator students are researching.
- Display the **Research about Pollinators: Class Notes** and reorient students to the three columns that guide their research. Point out that these are the same columns on the **Research about Bees: Class Notes**.

- Tell students they will follow the same process from Lessons 5–7 to read pages in *What Is Pollination?* and record notes connected to the three columns on the class notes onto sticky notes. Once they have written on their **sticky notes**, students will add them to the Research about Pollinators: Student Notes on page 10 of their **Plants and Pollinators research notebook, Part II**. Emphasize that the only difference is that they will be working in small groups instead of as a whole class.
- Using a total participation technique, invite responses from the group:

  "What text feature will help us efficiently find the most useful pages for each pollinator group in* What Is Pollination?*" (Table of Contents)
- Transition each group to a different area of the room to work and invite them to begin researching.
- Circulate to support students and provide reminders and remodeling of reading to locate information and/or note-taking.
- After 6–7 minutes, refocus students whole group. Give students specific, positive feedback on their collaboration while researching their specific pollinators.
- Invite students to return to the whole group area, bringing their copies of *What Is Pollination?* and sticky notes with them.

Meeting Students' Needs

- For ELLs and students who may need additional support with comprehension: (Pre-written Sticky Notes) To scaffold writing information on sticky notes, provide some sticky notes with pre-written notes. Students can match each note to the corresponding evidence in the book. (MMR, MMAE)
- For ELLs: (Reading Twice) Encourage students to read or listen to their research texts twice: once for gist, and again to find information.

Work Time

B. Shared Writing: Research about Pollinators: Class Notes (20 minutes)

- Refocus whole group and direct students' attention the posted **Text Features anchor chart**. Invite students to reflect on the different text features they used while working with their group.
- Turn and Talk:

  "What is one piece of helpful information you found?" (Responses will vary.)

  "What text feature helped you find that information efficiently?" (Table of Contents, pictures, and captions)
- Follow the routine from Work Time B of Lesson 5 for students to share their findings, add relevant notes to the Research about Pollinators: Class Notes, **and add information to their Research about Pollinators: Student Notes in their notebooks:**
  - Students share out their findings with the whole group.
  - Summarize students' findings and add them to the Research about Bees: Class Notes. Refer to the **Research about Pollinators: Class Notes (example, for teacher reference)** as necessary.

  - Invite students to copy the new class notes onto their Research about Pollinators: Student Notes on page 10 of their Plants and Pollinators research notebook, Part II. Remind students that they only need to copy information for their specific pollinator.
- Invite students to give someone in their research group a high-five to acknowledge their hard work.

Meeting Students' Needs

- For ELLs: (Explaining Information) Invite students to explain exactly how each piece of information relates to the focus statement. If helpful, provide a sentence frame to support thinking and speaking. (Example: "This information is about the butterfly's mouthparts. It tells how butterflies help plants grow and survive because _____.")
- For students who may need additional support with fine motor skills: Offer choice with the student notes by providing a template that includes lines or additional space for each section. (MMR, MMAE)

Work Time

C. Scientific Drawing of Our Pollinators: Shape and Size (15 minutes)

- Refocus whole group.
- Direct students' attention to the posted learning targets and read the second one aloud:
- "I can create and label a scientific drawing of my pollinator."
- Using a total participation technique, invite responses from the group:

  "What pollinator will we create a scientific drawing of?" (my group's pollinator)

  "What do we need to add to our scientific drawing?" (labels and a sentence)
- Direct students' attention to the **Scientific Drawing anchor chart**. Tell students that today they will practice applying these skills to their drawing with special attention to shape and size.
- Distribute the **butterflies and moths photographs #1–2, flies and wasps photographs #1–2, or beetles images photographs #1–2**. Invite students to turn their pictures upside down and review the process of observing and tracing shapes with a finger before beginning to draw.
- Using a total participation technique, invite responses from the group:

  "What shapes do you see in the photograph?" (circles, ovals, triangles)

  "Which shapes are bigger than others? Which shapes are smaller?" (Responses will vary, depending on photograph.)

  "What body parts do you see on the bee?" (Responses will vary, depending on photograph.)

  "Which body parts are smaller than others?" (Responses will vary, depending on photograph.)

  "What do we need to add to our observational drawing?" (labels and sentence)

- Follow the same process from Work Time C of Lesson 6 to guide students through completing their scientific drawings:
  - Remind students that they will continue to focus on shapes and sizes, and to only draw what they see in the picture.
  - Display page 11 of the Plants and Pollinators research notebook, Part II and read the directions aloud.
  - Invite students to begin drawing, labeling, and writing. Remind them that they can use the strategy of turning the picture and drawing paper upside down while they draw.
  - Circulate to support students and encourage them to use classroom resources when drawing and labeling.
  - When 1 minute remains, signal all students to stop working and invite them to clean up.

Meeting Students' Needs

- For students who may need additional support with self-regulation: As students work on their scientific drawing, support time management strategies by utilizing a visual timer. (MME)

Closing and Assessment

A. Reflecting on Learning (5 minutes)

- Gather whole group and briefly review the posted learning targets by reading them aloud:
- "I can collaborate with classmates to research information about my pollinator using the text *What Is Pollination?*"
- "I can create and label a scientific drawing of my insect pollinator."
- Direct students' attention to the **What Researchers Do anchor chart** and briefly review it.
- Think-Pair-Share:

  "How did you work to be an effective collaborator with your research group today?" (Responses will vary.)

  "How did collaborating help you learn more about your pollinator?" (Responses will vary.)
- Listen as students discuss in pairs. If time, invite a few students to share with the whole group.
- Preview tomorrow's work for students: more research, drawing, and writing about their pollinator!

Meeting Students' Needs

- For ELLs: (Word Families) When using the word *collaborator*, ask students about the root word and briefly review words in the same family and relevant affixes. (collaborate, collaborated, collaborating, collaboration)
- During Think-Pair-Share, increase mastery-oriented feedback by continuing to provide feedback that is frequent, timely, and specific to individual students. (MME)