

Lesson 7: Whole Group Research: Organizing Information about Bees



- **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 organize research notes to find the most important information about bees. (RI.2.1, RI.2.3, W.2.7)
- I can create and label a scientific drawing of a bee. (W.2.7)

Ongoing Assessment

- During Work Time A, circulate and listen in as students briefly discuss with a partner and then justify their decision to keep or recycle their information about bees. (SL.2.2)
- During the Closing, continue to circulate and listen for students to share details about their scientific drawing and what they learned about bees through their research. (W.2.7, SL.2.2)

Agenda

1. Opening

A. Song and Movement: “It’s Pollination Time,” Version 2 (10 minutes)

2. Work Time

A. Working with Evidence: Sorting Information about Bees (25 minutes)

B. Scientific Drawing of Bees: Shape and Size (20 minutes)

3. Closing

A. Sharing Our Work: Scientific Drawings of Bees (5 minutes)

Teaching Notes

Purpose of lesson and alignment to standards:

- Lesson 7 marks the transition from collecting information to working with the information gathered. Students work together to determine which pieces of collected information about bees is most relevant to the Unit 2 guiding question: “How do pollinators help plants grow and survive?” Processing notes in this lesson serves as preparation for writing informational text about bees in Lessons 11 and 12 (RI.2.1, RI.2.4, W.2.7, SL.2.2).
- During the Opening, students continue working with the “It’s Pollination Time” song; they work with Version 2 to choose adjectives and adverbs to fill in missing modifiers in the lyrics (L.2.1, L.2.1e).

How this lesson builds on previous work:

- In Lessons 5 and 6, students created scientific drawings of two different bees. In Lesson 7, they draw a new scientific drawing of a third bee photograph with the focus on the shapes and relative sizes that are visible within the picture.
- During Work Time A, students work to process information about bees that they gathered in Lessons 5 and 6. Students work together to decide which pieces of information best connect to the Unit 2 guiding question in preparation for informational writing in Lesson 11 about how bees help pollinate plants.

Areas in which students may need additional support:

- Some students may find it difficult to decide whether certain pieces of information are useful in answering the research question. Consider partnering/grouping options to support students during Work Time A, including students who need teacher-led groups.

Down the road:

- In Lessons 8 and 9, students will mirror the research process from Lessons 5–7 (which has been whole group and about bees) in small groups using text and photos for specific pollinators. In Lesson 10, they will process the information as they prepare for a Science Talk.
- In Lessons 8 and 9, students will continue to work on scientific drawings (focusing on shape and size) as they create two new drawings of their specific pollinators with continued focus on shape and size. During Unit 3, students will revise drafts of scientific drawings in preparation for their performance task.

In advance:

- Gather a research collection bag and recycling bin for use in Work Time A.
- Preview “It’s Pollination Time,” Version 2 to become familiar with it.
- Post: Learning targets; “It’s Pollination Time,” Version 2; and applicable anchor charts (see supporting Materials).

Technology & Multimedia

- 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.
- Consider the use of a document camera during Work Time C to support modeling of scientific drawing.

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 apply knowledge of text structure to organize their notes about bees.
- ELLs may find it challenging to determine and explain their thinking behind whether or not each piece of information presented in Work Time A connects to the focus statement. They may not understand the language in the prompt. Support their understanding by asking explicit and probing questions to guide them to the correct answers (see Meeting Student Needs Column).

Levels of support

For lighter support:

- During Work Time C, invite a student to create sentence frames for other students as they label their drawings.

For heavier support:

- During Work Time A, if some students do not yet have the language proficiency to comprehend the relationship between the focus statement and each piece of evidence, invite them to participate by allowing them to throw the research sentences strips that do not connect to the focus statement in the recycling bin.

Universal Design for Learning

- **Multiple Means of Representation (MMR):** Continue to support comprehension by activating prior knowledge and scaffold connections for students. Continue to provide visual display of questions and student responses on a chart or board during discussions.
- **Multiple Means of Action & Expression (MMAE):** Continue to support a range of fine motor abilities and writing needs by offering students options for writing utensils. Also, consider supporting students' expressive skills by offering partial dictation of student responses.
- **Multiple Means of Engagement (MME):** Invite students to reflect on their learning from previous lessons' research about pollinators to support students in understanding the value and relevance of the activities in this lesson. Continue to provide prompts and sentences frames for those students who require them.

Vocabulary

Key:

(L): Lesson-Specific Vocabulary

(T): Text-Specific Vocabulary

(W): Vocabulary Used in Writing

Review

- adjective, adverb, noun, verb (L)

Materials

- ✓ "It's Pollination Time," Version 2 (one to display)
- ✓ What Researchers Do anchor chart (begun in Unit 1, Lesson 2)
- ✓ Research about Bees: Class Notes (completed in Lesson 6; one to display)
- ✓ Unit 2 Guiding Question anchor chart (begun in Lesson 2)
- ✓ Focus statement sentence strip (one to display)
- ✓ Research collection bag (one per class; used by students to sort research statements)
- ✓ Recycling bin (one per class; used by students to sort research statements)
- ✓ Research sentence strips (one per pair)
- ✓ Bee sentence strip (one for teacher modeling)
- ✓ Bee photograph #3 (from Lesson 5; enough for a third of the class and one for teacher modeling)
- ✓ Plants and Pollinators research notebook, Part II (from Lesson 1; page 9; one per student and one for teacher modeling)
- ✓ Bee photograph #1 (from Lesson 5; enough for a third of the class)
- ✓ Bee photograph #2 (from Lesson 5; enough for a third of the class)
- ✓ Plants and Pollinators research notebook, Part II (from Lesson 1; example, for teacher reference)

- ✓ Scientific Drawing anchor chart (begun in Lesson 5; added to during the Closing; see supporting Materials)
- ✓ Scientific Drawing anchor chart (begun in Lesson 5; example, for teacher reference)

Opening

A. Song and Movement: “It’s Pollination Time,” Version 2 (10 minutes)

- Gather students whole group.
- Remind students that singing “It’s Pollination Time” helps them think about the ways pollinators can be described. Tell students that some words have been removed from the song so that they can think about the best ways to use adjectives and adverbs to describe bees.
- Display **“It’s Pollination Time,” Version 2**. Briefly review the definition and examples of the highlighted adjectives and adverbs in the song.
- Ask:
 - “Which types of words are missing in this version of the song?” (adjectives and adverbs)*
 - “What do adjectives describe?” (nouns)*
 - “What do adverbs describe?” (verbs)*
- Point out that one trick to remembering the differences is that the word *verb* is in “adverb.”
- Referring to the words displayed at the end of the first incomplete line of “It’s Pollination Time,” Version 2, share with students that they will work together to choose the best word to fill in the blank in the song.
- Read the first incomplete line of the song aloud. Point out that to make the best choice, we need to know what the blank space is describing.
- Say:
 - “The blank space comes right before the word bees, so we need a word that can describe bees. To make the best choice, I have to decide if I think bees is a noun or a verb. Then I’ll know which type of describing word to use.”*
- Review the meaning of *nouns* and *verbs* as needed.
- Ask students to listen as you reread the sentence two times. Read the first line aloud, replacing the blank with the first option, and then replacing the blank with the second option.
- Say:
 - “Black and furry bees spot flowers to go land.”*
 - “Black and playfully bees spot flowers to go land.”*
- Invite students to whisper a response into their hands and ask:
 - “Which is correct? Black and furry bees, or black and playfully bees?” (furry)*
- Think aloud by saying: “I know that the word *bees* is a noun that represents living things and that we use adjectives to describe nouns. *Furry* is an adjective that can describe bees. *Playfully* is an adverb that describes a verb. *Furry* is the best choice for this blank describing a bee.”
- Repeat this process for the remaining lines in the poem.
- Invite students to sing the song chorally using the new words and the actions they helped create during Lesson 6.

Meeting Students' Needs

- For ELLs and students who may need additional support with comprehension: (Color Coding: Hints) To reinforce the relationships between nouns and adjectives, and verbs and adverbs, outline the noun (*bees*) with the color corresponding to adjectives (*yellow*). Write the adverb (*playfully*) in pink and the adjective (*furry*) in yellow. (MMR)

Work Time

A. Working with Evidence: Sorting Information about Bees (25 minutes)

- Focus whole group and give students specific, positive feedback on the research they have completed so far using the text *What Is Pollination?* and photographs of bees.
- Remind students that they will soon have the opportunity to do some shared writing to show their learning about the Unit 2 guiding question:
 - “How do pollinators help plants grow and survive?”
- Direct students’ attention to the **What Researchers Do anchor chart** and focus them on the following bullet:
 - “Take notes to collect information to answer a research question.”
- Direct students’ attention to the posted learning targets and read the first one aloud:

“I can organize research notes to find the most important information about bees.”
- Tell students that when we organize our notes to find the most important information, this helps us understand how the notes work together to answer our research questions.
- Say:

“Today we will play a sorting game to decide which of our notes best help us answer the question: How do pollinators help plants grow and survive?”
- Tell students that they first need to think about the information they have already found. Direct students’ attention to the **Research about Bees: Class Notes** and briefly review them.
- Using a total participation technique, invite responses from the group:

“Based on what we have learned, do you think bees help plants grow and survive?” (yes)

“How do we know?” (We’ve found the information in text and pictures.)
- Say:

“Our research tells us that bees do help plants grow and survive. Since this is true, we can turn our question into a statement to focus our thinking. This is called a focus statement. We need the focus statement to play our game!”
- Direct students’ attention to the **Unit 2 Guiding Question anchor chart** and read it aloud:
 - “How do pollinators help plants grow and survive?”
- Tell students that you have made an attempt at writing the research question as a focus statement. Display the **focus statement sentence strip** and read it aloud:
 - “Bees are pollinators that help plants grow and survive.”
- Invite students to give a thumbs-up if they agree that this statement is true. Answer clarifying questions as needed.

- Say:
“Now that we have a focus statement, we can start our game!”
- Place the **research collection bag** on one side of the group and a **recycling bin** on the other.
- Show students the **research sentence strips**, each pre-written with one piece of information about bees.
- Tell students that not all of the research sentence strips will connect to the focus statement. Partners will bring their shared research sentence strip to the front of the group, read it aloud, and decide whether it should go in the research collection bag or the recycle bin.
- If the research sentence strip connects to the focus statement, they should put it in the research collection bag to include in our writing piece later. If it does *not* fit the focus statement, they should put in the recycling bin.
- Use the **bee sentence strip** to model the process for what to do when the research sentence strip does not relate to the focus statement.
- Invite students to silently wave goodbye to the piece of unrelated evidence as you send it off to the recycling bin with as much dramatic fervor as you can muster.
- Distribute the research sentence strips to pairs of students and guide them through this same process with their sentence strip. When it is time for them to place their sentence strips into the research collection bag or recycling bin, consider following these steps:
 - Invite one pair at a time to stand in front of the group, read their research sentence strip, and share their decision about its fit with the focus statement.
 - Encourage students who are unsure about their decision to ask the class for advice. Help guide decisions as needed.
 - Invite the class to use a favorite class cheer for evidence that makes it to the research collection bag and to wave goodbye to research going to the recycling bin.
- Give students specific, positive feedback on their work sorting research that is important to the focus statement. Tell students that their work and thinking now will make it easier to start their writing later.
- Invite students to buzz like bees as they move around the group meeting area and high-five classmates to congratulate them for their work on sorting information about bees!

Meeting Students' Needs

- For ELLs: (Probing Questions: Focus Statement) Ask about and explicitly discuss the reason each piece of information does or does not relate to the focus statement. Examples:
“What is it about?”
“What is our focus statement about?”
“Are they about the same thing?”
- For ELLs and students who may need additional support with comprehension: (Comparing and Contrasting: Questions and Statements) When revealing the focus statement, discuss the elements that make it a statement and not a question. Examples:
“What words or clues in our Unit 2 guiding question tell us it is a question?” (how; do; question mark)

“How did I change those words to make it a statement?” (replaced How do with Bees are; added that; added a period at the end)

“What is the difference between a question and a statement?” (A question asks about information you don’t know yet; a statement tells about information you know.) (MMR)

- For students who may need additional support with reading: Invite students to choose a friend to read their sentence strip aloud together. (MMAE, MME)

Work Time

B. Scientific Drawing of Bees: Shape and Size (20 minutes)

- Refocus students and remind them that in the previous lesson, they focused on shapes for their scientific bee drawing.
- Direct students’ attention to the posted learning targets and read the second one aloud.

“I can create and label a scientific drawing of a bee.”

- Tell students that today they will create a third observational drawing of a bee, with a focus on both shapes and sizes.
- Display **bee photograph #3** and ask:

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

“Which shapes are bigger than others? Which shapes are smaller?” (there are ovals of different sizes; the oval on the body is bigger than the oval on the head)

“What body parts do you see on the bee?” (head, wings, body, legs, stinger)

“Which body parts are smaller than others?” (the head is smaller than the body; the legs are smaller than the wings)

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

- Display page 9 of the **Plants and Pollinators research notebook, Part II**.
- Follow the same routine from Work Time C of Lesson 6 to guide students through creating, labeling, and writing a sentence for their scientific drawing of a bee:
 - Think aloud to model how to complete an observational drawing using bee photograph #3.
 - Direct students to page 9 in their Plants and Pollinators research notebooks, Part II.
 - Read the directions aloud.
 - Distribute **bee photographs #1–3**, ensuring each student uses a different photograph from Lesson 6.
 - 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. Refer to the **Plants and Pollinators research notebook, Part II (example, for teacher reference)** as necessary.
 - When 1 minute remains, signal all students to stop working. Model cleanup, keeping directions clear and brief.

- If productive, cue students to think about their thinking:

“How did drawing and labeling a bee add to your understanding of the size of a bee? I’ll give you time to think and discuss with a partner.” (Responses will vary.)

Meeting Students’ Needs

- For students who may need additional support with comprehension: Provide cutouts of several shapes for students to match with shapes they see in the bee image. (MMR)

Closing and Assessment

A. Sharing Our Work: Scientific Drawings of Bees (5 minutes)

- Invite students back to the whole group area with their scientific drawing and writing.
- Briefly review the posted learning targets by reading them aloud:

“I can organize research notes to find the most important information about bees.”

“I can create and label a scientific drawing of a bee.”

- Remind students that today they have worked to find out which information they collected is important in preparing them to write about the research question and written one sentence about their learning on today’s new scientific drawing.
- Turn and Talk:

“What is one piece of information that we decided was important to our research question?” (Responses will vary, but may include: Bees pollinate many fruit and vegetable plants.)
- If productive, cue students to explain why a classmate came up with a particular response:

“Who can explain why your classmate came up with that response?”
- Direct students’ attention to the **Scientific Drawing anchor chart**. Give students specific, positive feedback on their use of careful observation before drawing and their attention to shape.
- Using a total participation technique, invite responses from the group:

“What new scientific drawing skill did we focus on today?” (focusing on size)
- Add “notice the sizes of the parts you see” to the Scientific Drawing anchor chart. Refer to the **Scientific Drawing anchor chart (example, for teacher reference)** as necessary.
- Follow the same routine from the Closing of Lesson 5 to guide students through sharing their scientific drawing and writing with a partner.
- Preview tomorrow’s work: researching and drawing about other insect pollinators!

Meeting Students’ Needs

- 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 their scientific drawing. (MME)