

Lesson 7: Reading Informational Texts: How Do Flowers Help Plants Grow and Survive?



- **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.2.3:** Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- **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.
- **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.2.1:** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
- **L.2.4d:** Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., *birdhouse*, *lighthouse*, *housefly*; *bookshelf*, *notebook*, *bookmark*).



Daily Learning Targets

- I can describe the characteristics of a flower using the Frayer Model. (RI.2.1, RI.2.3, SL.2.1)
- I can build a model of a flower and label its parts. (SL.2.5)

Ongoing Assessment

- After Work Time B, collect students' Plants and Pollinators research notebook, Part I to review page 7 and measure progress toward RI.2.1 and W.2.7.
- During Work Time B, listen for students to provide information for the Flower Frayer Model anchor charts using evidence from the text *Plant Secrets*. (W.2.7, SL.2.1)

Agenda

1. Opening

- A. Poem and Movement: "Plants around the World" (5 minutes)

2. Work Time

- A. Focused Reading: *Seed to Plant*, Pages 18–21 (10 minutes)
- B. Reading Aloud to Research Flowers: *Plant Secrets*, Pages 13–18 and 29 (15 minutes)
- C. Engaging the Researcher: Using a Diagram to Create a Flower Model (25 minutes)

3. Closing and Assessment

- A. Reflecting on Learning (5 minutes)

Teaching Notes

Purpose of lesson and alignment to standards:

- This lesson connects to Next Generation Science Standard 2-LS2-2. During Work Time C, students focus on the following science and engineering practice: Develop a simple model based on evidence to represent a proposed object or tool. Help students understand that creating a flower model can help us investigate how its parts work together to create new plants.
- In this lesson, students continue to build knowledge about how plants grow and survive by learning about the relationship between flowers and fruit. The Opening, Work Times A and B, and the Closing all contain repeated routines from Lesson 2–6. Refer to those lessons for more detail, as necessary. (RI.2.1, RI.2.3, RI.2.5, W.2.7)

How this lesson builds on previous work:

- In Lesson 6, students worked independently to read and answer text-dependent questions for the Unit 1 Assessment. In this lesson, they continue to apply informational text reading strategies to learn about flowers.
- In Lessons 3–5, students completed Plant and Seed Frayer Model anchor charts. In this lesson, they complete a Flower Frayer Model anchor chart as a class.

Areas in which students may need additional support:

- In Work Time A, students independently answer text-dependent questions. Some students may benefit from working with partners or a teacher-guided group.

Down the road:

- In Lesson 8, students complete a Fruit Frayer Model anchor chart as a class.
- Students continue to build background knowledge about plant growth and survival through Lesson 9. They will use these understandings as the basis for exploring the role of specific pollinators in Unit 2.

In advance:

- Prepare and pre-distribute Materials for building flower models in Work Time C. Consider space needed for models to dry.
 - Cut spool of yarn into two- to three-inch-long pieces.
 - Tear or cut yellow construction paper into small scraps.
 - Tear or cut tissue paper into small scraps.
- Prepare the Plants and Pollinators Word Wall cards for the words *flower* and *model*.
- Preview the Language Dive Guide and consider how to invite conversation among students to address the language goals suggested under each sentence strip chunk (see supporting Materials).
- Post: Learning targets and applicable anchor charts (see Materials list).

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.A.1, 2.I.B.5, 2.I.B.6, and 2.I.C.10

Important points in the lesson itself

- The basic design of this lesson supports ELLs through the use of a graphic organizer to process information and consolidate content knowledge. Students also deepen content knowledge by building models of flowers.
- ELLs may find the parts of a flower introduced in this lesson overwhelming. Provide students additional opportunities to practice using the terms as they build their flowers. Reassure them it is most important to understand that flowers have different parts that all have important jobs to help flowers grow and survive.
- In Work Time A, ELLs may participate in an optional Language Dive that guides them through the meaning of a sentence from *Seed to Plant*. The focus of this Language Dive is explaining the process of pollination and understanding the role of an adverbial phrase. Students then apply their understanding of the meaning and structure of this sentence when completing their Plants and Pollinators research notebook, Part I.

Levels of support

For lighter support:

- If students received heavier support completing the Frayer model during Lessons 3 and 4, encourage them to try the task with lighter support during this lesson. For students who feel confident, invite them to mentor others who may still need heavier support.

For heavier support:

- During Work Time B, distribute sticky notes with pre-written sentence frames. (Examples: Flowers help plants _____. A flower is _____.)
- During Work Time C, provide sentence frames to encourage communication and oral processing as students build their flower models. (Example: This is a flower. This part is a _____. This part is a _____.)

Universal Design for Learning

- **Multiple Means of Representation (MMR):** Continue to ensure all students have access to the directions in each session and feel comfortable with the expectations. Vary the ways in which you convey expectations for each activity or task.
- **Multiple Means of Action & Expression (MMAE):** In this lesson, students use a diagram to create a 3D model of a flower. Continue to support students in setting appropriate goals for their effort and the level of difficulty expected.
- **Multiple Means of Engagement (MME):** As students engage with the texts during this lesson, continue to support them in linking the information presented back to the learning target to emphasize and remind them of the instructional goal.

Vocabulary

Key:

(L): Lesson-Specific Vocabulary

(T): Text-Specific Vocabulary

(W): Vocabulary Used in Writing

New

- bloom, bud, stamen, stigma, pollen, reproduce (T)

Review

- model, efficient, compound word, plant, seed, diagram (L)
- flower (T)

Materials

- ✓ "Plants around the World" (from Lesson 5; one to display)
- ✓ Compound Words anchor chart (begun in Lesson 4)
- ✓ *Seed to Plant* (from Lesson 3; one per student and one to display; for teacher read-aloud)
- ✓ Plants and Pollinators research notebook, Part I (begun in Lesson 2; page 7; one per student)
- ✓ Plants and Pollinators research notebook, Part I (begun in Lesson 2; example, for teacher reference)
- ✓ Flower Frayer Model anchor chart (new; co-created with students during Work Time B; see supporting Materials)
- ✓ Flower Frayer Model anchor chart (example, for teacher reference)
- ✓ Language Dive Guide: *Seed to Plant* (optional; for ELLs; for teacher reference)
 - Language Dive Chunk Chart: *Seed to Plant* (optional; for ELLs; for teacher reference)
 - Language Dive Sentence Strip Chunks: *Seed to Plant* (optional; for ELLs; one per student and one to display)
 - Language Dive Note-catcher: *Seed to Plant* (optional; for ELLs; one per student and one to display)
- ✓ Seed Frayer Model anchor chart (completed in Lesson 5)
- ✓ Plant Frayer Model anchor chart (completed in Lesson 3)

- ✓ Text Features anchor chart (begun in Lesson 3)
- ✓ *Plant Secrets* (from Lesson 2; one to display; for teacher read-aloud)
- ✓ Sticky notes (two to three per student)
- ✓ Unit 1 Guiding Question anchor chart (begun in Lesson 3)
- ✓ What Researchers Do anchor chart (begun in Lesson 2)
- ✓ Plants and Pollinators Word Wall cards (new; teacher-created; two)
- ✓ Plants and Pollinators Word Wall (begun in Lesson 3; added to during Work Time C; see Teaching Notes)
- ✓ Creating a Flower Model (one per student and one for teacher modeling)
- ✓ Yarn (one spool; four pieces per student and four pieces for teacher modeling; see Teaching Notes)
- ✓ Drinking straws (one per student and one for teacher modeling)
- ✓ Yellow construction paper scraps (6–10 small pieces per student and 6–10 small pieces for teacher modeling)
- ✓ Tissue paper (various colors; three small pieces per student and three small pieces for teacher modeling)
- ✓ Glue stick (one per student and one for teacher modeling)
- ✓ Pencil (one per student and one for teacher modeling)

Opening

A. Poem and Movement: “Plants around the World” (5 minutes)

- Gather students whole group.
- Display “**Plants around the World**” and follow the routine from the Opening of Lesson 6 to read the poem aloud using a movement for compound words.
- Invite students to chorally read aloud the poem.
- Review the definition of a compound word (a word that is made up of two or more words joined together).
- Direct students’ attention to the **Compound Words** anchor chart and briefly review it.
- Focus students on the heading: “Prediction: I think this new word means...”
- Review the definition of a *prediction* (a guess; if you know the meaning of the first and the second word, you can predict what the compound word means).
- Turn and Talk:

“If you know the meaning of the words sun and flowers, what do you think the word sunshine might mean?” (light shining from the sun)

Meeting Students’ Needs

- For ELLs: (Review Vocabulary) Ensure students are clear about the meaning of each part of the compound words reviewed.

- For ELLs and students who may need additional support with comprehension: (Color Coding: Compound Words) Color code the compound words. For heavier support, invite students to annotate the margins around each word with illustrations. (MMR)

Work Time

A. Focused Reading: *Seed to Plant*, Pages 18–21 (10 minutes)

- Give students specific, positive feedback on the effort they have been putting into reading informational text to learn about plants, their parts, and their needs over the last week.
- Tell them that today they will be reading and answering text-dependent questions to learn about the next stage of plant development: flowers.
- Follow the same routine from Work Time A of Lesson 6 to guide students through independently reading and answering text-dependent questions.
 - Invite students to independently read pages 18–21 of *Seed to Plant*.
 - Invite students to answer the text-dependent questions on page 7 in their **Plants and Pollinators research notebook, Part I**.
 - After 4–5 minutes, refocus students whole group and invite several students to share their responses.
- Turn and Talk:
“What is one thing you learned about flowers from this text?” (Many plants grow flowers. Flowers make pollen. Pollen sticks to birds and bees. Pollen helps make seeds.)
- Encourage students that they are working hard to read like researchers do as they continue to expand their knowledge of plants!

Meeting Students' Needs

- For ELLs: During or after Work Time A, guide students through a **Language Dive**. Refer to **Language Dive Guide I: *Seed to Plant*** and **Language Dive Chunk Chart I: *Seed to Plant***. Distribute and display **Language Dive Sentence Strip Chunks I: *Seed to Plant*** and **Language Dive Note-catcher I: *Seed to Plant***.
- For students who may need additional support with reading: Consider providing a recorded reading of pages 18–21. (MMR)
- For students who may need additional support with organizing their thinking for written expression: Invite students to verbally share their answers to questions on page 7 before they write or are taken in dictation. (MMAE)

Work Time

B. Reading Aloud to Research Flowers: *Plant Secrets*, Pages 13–18 and 29 (15 minutes)

- Refocus whole group.

- Direct students' attention to the posted **Seed Frayer Model anchor chart** and **Plant Frayer Model anchor chart**.
- Tell students they have completed the seed and plant stages of the plant, and next they will move on to complete the flower and fruit stages. Share that they will start with the flower.
- Direct students' attention to the **Text Features anchor chart** and briefly review it.
- Share that today, they will continue using text features efficiently to learn new information about plants. They will also discover the meaning of unknown words and think about how different information in the text is connected.
- Direct students' attention to the posted learning targets and read the first one aloud:
"I can describe the characteristics of a flower using the Frayer model."
- Direct students' attention to the **Flower Frayer Model anchor chart**. Remind students that this chart is a place to write and draw information about flowers to help us remember what we're learning about them.
- Display the cover of *Plant Secrets* and read the title aloud.
- Remind students that they heard this text read aloud in Lesson 2, and today this text will be revisited to learn new information about flowers.
- Display page 13 of *Plant Secrets* and read aloud pages 13–18 and the top of page 29 for gist.
- Review gist (what the text is mostly about) as necessary.
- Confirm the *gist* with students (what flowers are and why they are important).
- Move students into pairs and distribute **sticky notes**. Follow the same routine from Lessons 5–6 to complete the Flower Frayer Model anchor chart. Note: Since students do not have their own copy of the text as they did in Lessons 5–6, you will read it aloud to them.
- Reread pages 13–18. Stop to define words as needed and pause to reflect on the **Unit 1 Guiding Question anchor chart**: "How do plants grow and survive?"
- After each page, Turn and Talk:
"What did you learn from this page that helps us answer our research question: How do plants grow and survive?" (Responses will vary.)
- If productive, cue students to add on to what a classmate said:
"Who can add on to what your classmate said? I'll give you time to think."
- Invite pairs to record their ideas on their sticky notes. Remind them that notes can be words and phrases that help us remember important information. Possible notes from this set of pages include:
 - "Some plants grow flowers."
 - "Flowers can be many shapes, sizes, colors."
 - "Flowers can be many colors."
 - "Flowers have parts to make fruits."
- Reread the top of page 29. Stop at the word *reproduce*. Tell students that *reproduce* means to make a new plant. Ensure students have an opportunity to look closely at the stages of the rose on page 29.
- Turn and Talk:
"What did you learn from this page that helps us answer our research question: How do plants grow and survive?" (flowers help plants make new plants)

- Invite pairs to add their sticky notes to the Flower Frayer Model anchor chart. Refer to the **Flower Frayer Model anchor chart (example, for teacher reference)** as necessary.
- Focus students on the box labeled “visual.” Tell students that while *Plant Secrets* provides useful information about flowers, it did not give us enough detail to sketch the parts of a flower.

Meeting Students' Needs

- For ELLs: (Whole Class Practice) Before dividing students into groups, consider working as a class to practice identifying information for one item on the Frayer model.
- For ELLs: (Word Families) When reviewing the word *reproduce*, ask students about the root word and briefly review the words in the same family and relevant affixes.
- Before reading, provide white boards and white board markers as an option for students to record (in drawing or writing) their ideas. (MMR, MMAE)

Work Time

C. Engaging the Researcher: Using a Diagram to Create a Flower Model (25 minutes)

- Display *From Seed to Plant*. Share that researchers sometimes need to use more than one source to find what they need. In this case, you have identified a source with a clear diagram of a flower and its parts.
- Display page 5 of *From Seed to Plant*.
- Tell students that this diagram shows many parts of a flower and that they will focus on some important parts that help it reproduce.
- Sketch the flower on the Flower Frayer Model anchor chart and label the following parts on while sharing their meaning:
 - Petal: one of the separate leaves that form the outer part of a flower head. Petals are usually a different color from the plant's other leaves.
 - Stigma: the part of a plant that receives pollen.
 - Stamen: the part of a flower that makes pollen.
 - Pollen: the fine, yellow powder made by a flowering plant.
- Direct students' attention to the posted learning targets and read the second one aloud:

“I can build a model of a flower and label its parts.”
- Define *model*. Tell students that a model can mean different things in different situations. For example, oftentimes before we write, we look at a model example so we can see a strong example of writing before we start writing. The kind of model the learning target talks about is a small copy of something.
- Direct students' attention to the posted **What Researchers Do anchor chart** and read aloud the last bullet:
 - “Use models to explain an idea.”

- Share that researchers often create models to share what they have learned and help people to understand how something works.
- Using a total participation technique, invite responses from the group:
“What idea from our notes can we help explain by making a model of a flower?” (flowers have parts that make seeds)
- Introduce today’s challenge: Create a model of a flower that will teach others about how its parts work! Emphasize that students can use the model to add to their growing understanding about how plants grow and survive throughout this module.
- Show students the **Plants and Pollinators Word Wall cards** for *flower* (the part of the plant that makes fruit or seeds) and *model* (a small copy of something), and follow the same process established in Modules 1 and 2: provide its definition, clap out its syllables, use it in a sentence, and place the Word Wall card and picture for it on the **Plants and Pollinators Word Wall**.
- Display **Creating a Flower Model**.
- Show that the Materials available represent each part of a plant:
 - Petals—tissue paper
 - Stigma—straw
 - Stamen—yarn
 - Pollen—construction paper
- Begin creating a model of a flower using the Materials, showing how to adhere Materials together using the **glue stick**.
- Model labeling one of the parts using a **pencil**, drawing an arrow to show the part labeled.
- Transition students to their workspaces and invite them to begin creating their own model of a flower on their pre-distributed copy of Creating a Flower Model.
- As students work, circulate and review directions as needed. Ask students to predict how these parts work together to make a new seed to gather information about students’ prior knowledge about how fruits are produced before Lesson 8.
- After 10 minutes, signal students to stop working and clean up their workspace. Invite students to bring their models to a space where they can dry until they can be added to.
- For students who may need additional support with self-regulation: When you give students a warning before the transition, provide a clear routine for what to do with unfinished work and utilize a visual timer. (MME)

Closing and Assessment

A. Reflecting on Learning (5 minutes)

- Follow the same routine from the Closing of Lesson 3 to guide students through reflecting on how they took initiative to learn new information about plants today. Note: Students will not record their responses in their research notebooks today.
- Preview tomorrow’s work by sharing that students will continue to work as researchers to learn more about plants and how their parts work!

Meeting Students' Needs

- For ELLs and students who may need additional support with comprehension: (Revisiting the Learning Target) Revisit the learning targets introduced in Work Time B. Ask students to give specific examples of how they worked toward achieving it in this lesson. Invite students to rephrase the learning target now that they have more experience learning about flowers. (MMR)