

Lesson 1: Discovering Our Topic: Sorting Materials Related to Plants



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.
- **W.2.8:** Recall information from experiences or gather information from provided sources to answer a question.
- **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.
- **SL.2.3:** Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
- **SL.2.6:** Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.



Daily Learning Targets

- I can describe how I sorted my images with my group. (SL.2.1, SL.2.3, SL.2.6)
- I can record information about my images. (RI.2.1, W.2.8)

Ongoing Assessment

- During Turn and Talk opportunities, listen as students converse about how the plant images relate to each other. Use this information to inform instruction about conversation norms in subsequent lessons. (SL.2.1)

Agenda

1. Opening

A. Engaging the Learner: Mystery Bag with Plant Parts (10 minutes)

2. Work Time

A. Making Observations: Sorting Pictures Related to Plants (20 minutes)

B. Recording Observations: Recording How I Sorted (15 minutes)

3. Closing and Assessment

A. Introducing the Module Guiding Question (15 minutes)

Teaching Notes

Purpose of lesson and alignment to standards:

- In this lesson, students are introduced to the module topic (Plants and Pollinators). They are given the opportunity to discover the topic by predicting what is inside the mystery bag. If there are students with allergies or if you have difficulty gathering materials, consider using the Tea Party protocol for the Opening, using the pictures from Work Time A.

- During Work Time A, students engage in a sorting activity with images of seeds, plants, flowers, and fruits. Students are provided images to sort and given opportunities to speak about their ideas (SL.2.1).
- During Work Time B, students draw and write what they think about how the objects or pictures relate to each other. These drawings are intended to be a sketch to support students in building background knowledge of the stages of a plant (RI.2.1).
- In the Closing, the module guiding question is introduced: “How do we get the fruits, flowers, and vegetables that we enjoy?” This question drives the inquiry into the topic of Plants and Pollinators over the course of the module.
- Beginning in Module 3, ELL supports within the Meeting Students’ Needs column will be labeled and explained in detail the first time they are used. Supports repeated in subsequent lessons will also be labeled but condensed for easier reading and at times adjusted to provide lighter support. Attend to the detailed supports (and labels) early in the module in order to apply them throughout the module. Note that many of the supports have been suggested repeatedly in Modules 1 and 2.
- Beginning in this lesson, the Mini Language Dive format in the Meeting Students’ Needs column shifts to reflect the new Language Dive Guide format for Modules 3 and 4 (see Language Dives in the Module 1 Appendix). Although students should briefly discuss all chunks in the Mini Language Dive sentence, the new format invites them to slow down during one chunk to focus on a compelling language structure. For more context, consider reviewing the full Language Dive Guide in Lessons 2, 7, 8, and 9 of this unit, as well as a range of possible questions students might ask one another in Questions We Can Ask during a Language Dive in the Module 1 Appendix.
- This lesson is the first in a series of three that include built-out instruction for the use of Goal 4 Conversation Cues. Conversation Cues are questions teachers can ask students to promote productive and equitable conversation (adapted from Michaels, Sarah and O’Connor, Cathy. *Talk Science Primer*. Cambridge, MA: TERC, 2012. http://inquiryproject.terc.edu/shared/pd/TalkScience_Primer.pdf. Based on Chapin, S., O’Connor, C., and Anderson, N. [2009]. *Classroom Discussions: Using Math Talk to Help Students Learn, Grades K–6*. Second Edition. Sausalito, CA: Math Solutions Publications). Goal 4 Conversation Cues encourage students to think with other students to expand the conversation. Continue drawing on Goal 1–3 Conversation Cues, introduced in Modules 1–2, and add Goal 4 Conversation Cues throughout Modules 3–4 to more strategically promote productive and equitable conversation. Refer to the Module 1 Appendix for additional information on Conversation Cues. Consider providing students with a thinking journal or scrap paper. Examples of the Goal 4 Conversation Cues you will see in the remaining modules are (with expected responses):
 - To encourage students to compare ideas:
Teacher: “How is what ____ said the same as/different from what ____ said? I’ll give you time to think and write.”
 Student: “____ said _____. That’s different from what ____ said because _____.”
 - To encourage students to agree, disagree, and explain why:
Teacher: “Do you agree or disagree with what your classmate said? Why? I’ll give you time to think and write.”
 Student: “I agree/disagree because _____.”

- To encourage students to add on to others' ideas:

Teacher: "Who can add on to what your classmate said? I'll give you time to think and write."

Student: "I think that ____."

- To encourage students to explain others' ideas:

Teacher: "Who can explain why your classmate came up with that response? I'll give you time to think and write."

Student: "I think what she's saying is ____."

- Invite students to discuss flowers, fruits, and vegetables that may be significant in their communities at home and to then share what they learn with the class. Students can bring objects from home to enhance the sharing.

How this lesson builds on previous work:

- This lesson introduces the routine of an open sort. Consider how it might build on instructional routines already in place in your classrooms. Example: closed sort, drawing and writing to communicate ideas, use of materials.

Areas in which students may need additional support:

- For students who need additional support cutting their sort, consider providing them with a pre-cut sort.

Down the road:

- In upcoming lessons, students will revisit their experience with the mystery sort, adding new information to their understanding of plant parts. Begin collecting materials (yarn, construction paper) to make a model plant (see Materials and Teaching Notes in Lesson 4).

In advance:

- Prepare:
 - Plant parts for mystery bag: Gather real life seeds, plants, flowers, and fruits of your choice. Note that this bag will contain various plant parts. Take into account any student allergies when creating the mystery bag.
 - Organize students into pairs or groups of three to work together during Work Time A. This honors young students need to explore and discuss different ideas with their peers as they learn new concepts.
 - Copies of mystery sort images in color, if possible.
- Pre-distribute materials for Work Times A and B in the whole group area.
- Preview the images or objects used in mystery sort to familiarize yourself with the stages of plants and which plant parts go together. Remember that a model sort will be revealed during the Closing to show the stages of a particular fruit or vegetable.
- 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, and 2.I.C.10

Important points in the lesson itself

- The basic design of this lesson supports ELLs with opportunities to interact with tangible items and build content knowledge around the Unit 1 topic and guiding questions.
- ELLs may find it challenging to express their thinking behind the categories they used to sort objects. Support students with think-alouds and sentence frames as necessary.

Levels of support

For lighter support:

- Before providing sentence frames or additional modeling during Work Time, observe student interaction and allow students to grapple. Provide supportive frames and demonstrations only after students have grappled with the task. Observe the areas in which they struggle to target appropriate support.

For heavier support:

- During Work Time A, as students sort objects into categories, brainstorm and record categories they can use to spark their thinking (e.g., color, shape, texture, weight).

Universal Design for Learning

- **Multiple Means of Representation (MMR):** To facilitate effective learning during this lesson, ensure that all students have access to the directions for each activity and feel comfortable with the expectations. 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):** Before students begin writing in Work Time B, vary methods for fine motor responses by offering options for drawing utensils and writing tools. Some students may forget their sentence ideas once they begin directing their efforts toward writing. Support strategy development by modeling how to draw lines for words you intend to write. This helps students recall their original ideas throughout the writing process.

- **Multiple Means of Engagement (MME):** In Work Time A, students work together to sort images. Some students may feel uncomfortable sharing their ideas if they are different than others in the group. Cultivate a supportive environment by encouraging students that all group members should contribute their ideas and share their thinking in this collaborative activity. Remind students that all ideas are valued and sharing helps our collaborative thinking grow even stronger.

Vocabulary

Key:

(L): Lesson-Specific Vocabulary

(T): Text-Specific Vocabulary

(W): Vocabulary Used in Writing

New

- open sort (L)

Review

- observe (L)

Materials

- ☒ Mystery bag (new; teacher-created; one for teacher modeling; see Teaching Notes)
 - Seeds (one for teacher modeling)
 - Plants (one for teacher modeling)
 - Flowers (one for teacher modeling)
 - Fruits (one for teacher modeling)
- ☒ Sort images (one per group)
- ☒ Open Sort anchor chart (new; teacher-created; see supporting Materials)
- ☒ Open Sort anchor chart (example, for teacher reference)
- ☒ Paper (blank; one per group)
- ☒ Mystery Sort recording form (one per student and one to display)
- ☒ Mystery Sort recording form (example, for teacher reference)
- ☒ Pencils (one per student)
- ☒ Model Sort of Plant Stages (one for teacher modeling)
- ☒ Module Guiding Question anchor chart (new; teacher-created)
- ☒ Module Guiding Question anchor chart (example, for teacher reference)

Opening

A. Engaging the Learner: Mystery Bag with Plant Parts (10 minutes)

- Gather students whole group.
- Tell them they are going to find out what they are going to be learning about in the next few weeks.
- With excitement, show students the **mystery bag** with seeds, flowers, plants, fruits, and vegetables inside. Tell students that they will feel inside the mystery bag to gather clues about what they will be studying.
- Reach inside the mystery bag and model how to describe each object aloud. Say: “I feel something smooth and delicate. It feels like it could be a flower petal.”
- Invite students to feel the contents of the bag as well. Choose a few volunteers to describe the contents aloud.
- Invite students to use the sentence frame:
 - “I feel something ____ and _____. It could be a _____.”
- Think-Pair-Share:

“What do you think we will study in the next few weeks?” (Answers will vary, but may include “I think we will study apples”).
- Show students the contents of the mystery bag. Say: “I see seeds, flowers, plants, and fruits inside.”
- Ask:

“What are the names for the contents of the mystery bag in your home language?” (Responses will vary.)
- Think-Pair-Share:

“What do you think about these seeds, flowers, plants, and fruits? Has anyone in your family had experiences with them?”
- Say: “I wonder how these parts fit together to reveal what we will be studying.”
- Invite students to make a silent guess about how the parts fit together to give clues about the topic of study.

Meeting Students' Needs

- For ELLs and students who may need additional support with Vocabulary (Generating Language): Brainstorm and record some descriptive language students can use as they describe items in their mystery bags. (Examples: smooth, rough, hard, soft.) (MMR)

Work Time

A. Making Observations: Sorting Pictures Related to Plants (20 minutes)

- Display two sets of **sort images** to students.
- Tell students they will work with these images to find out what they will be studying in the next few weeks. To discover more about how the images relate to each other, they will sort the images (or plant parts) in an *open sort*. Say: “In an open sort, your job is to sort the images in groups that make sense to you.”
- Direct students’ attention to the posted learning targets and read the first one aloud:
“I can describe how I sorted my images with my group.”
- Turn and Talk:
“What do you think this learning target means?” (Responses will vary, but may include: It means we will work together to sort images into groups and tell how we sorted the images.)
- Direct students’ attention to the **Open Sort anchor chart** and review the expectations to students:
 - Point to the first image of the Open Sort anchor chart (magnifying glass). Tell students that they will look closely at all of the images.
 - Point to the image of the person thinking. Tell students they will think of one way to sort the images into different groups.
 - Point to the image of two people talking. Explain to students that they will discuss how to sort the images. Each student will get a chance to share their idea for how to sort the images. Invite students to use the sentence frame: “I think we should sort ____ into groups because …” when sharing their ideas for how to sort.
 - Point to the image of different sorts. Explain that after each group member shares an idea of how to sort, they will choose one way to sort the images. Invite students to vote on the sorting idea they like best.
 - Point to the image of many group members sitting at a table. Tell students that they will work together to sort all the images into the categories chosen by the group.
 - Point to the arrow in the shape of a circle. Explain to students that when their group is finished sorting, they should sort the images with another idea of how to sort.
- Move students into pairs or triads and distribute sort images and **paper**.
- In small groups, guide students through the open sort, following the directions on the anchor chart.
- Turn and Talk:
“What do you observe about the images? (Responses will vary, but may include: I observe many seeds. I can make a group of seeds.)
- If productive, use a Goal 4 Conversation Cue to encourage 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.”
- Direct students to discuss how they will group their images and why they think they should be grouped that way. Invite students to use the sentence frame:
 - “I think we should sort _____ into groups because _____.”

- Circulate and listen as students discuss, supporting and prompting them to explain their reasons for their sorts.
- Inform students that they will have the opportunity to sort in multiple ways. If students finish sorting images one way, encourage them to think of a different way to sort.

Meeting Students' Needs

- For ELLs: (Strategic Grouping) 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 and students who may need additional support with strategy development: (Modeling) Model, think aloud, or fishbowl the process of explaining the decision to sort something in a particular way. (Example: "Hmm ... What do these have in common? They are all little seeds, so I will say that I think we should sort the seeds into groups because they are all the same thing.") (MMAE)
- For students who may need additional support with self-regulation: Help students anticipate and manage frustration by modeling what to do if someone in their group has an idea they do not agree with. (Example: "One of my group members may suggest a way to sort that I don't agree with. If that happens, I can remember that collaborating means putting everyone's ideas together. I can be flexible to help my group collaborate.") (MME)

Work Time

B. Recording Observations: Recording How I Sorted (15 minutes)

- Share with students that they will now have the opportunity to record their ideas by drawing and writing about their sort.
- Say:
"Many groups sorted the images (or objects) in different ways! Use the Mystery Sort recording form to explain how you sorted the images."
- Direct students' attention to the posted learning targets and read the second one aloud:
"I can record information about my images."
- Draw students' attention to the words record and images.
- Display the **Mystery Sort recording form**. Point out that there is space for students to draw and write (record) their sorts. The blank space is for drawing, and the lines are for writing.
- Tell students to *record* the images they sorted by drawing them in the blank space using their **pencils**.
- Tell students to use words to describe how they sorted the images on the lines for writing.

- Quickly model and think aloud the process for completing the Mystery Sort recording form. Say:
“We sorted our pictures into things you eat and things you don’t eat” or “Our group sorted our images by type: seeds, plants, flowers, and fruit.” Model writing the sentence on the lines provided. Invite students to offer suggestions and ideas.
- Distribute Mystery Sort recording forms.
- Circulate and observe students drawing images from their sort. Prompt them to describe how they sorted the images and record their ideas on the lines provided.

Meeting Students' Needs

- For ELLs: (Sentence Frames: Lighter Support) Invite students to create sentence frames using linking words to support and expand writing. Invite students who need heavier support to use the frames. (Example: *I noticed that ____ and ____.*)
- For students who may need additional support with working memory and organizing information: Provide options for written expression by offering a Mystery Sort recording form that includes pre-written sentence frames with space for students to identify keywords or phrases. (MMR, MMAE)

Closing and Assessment

A. Introducing the Module Guiding Question (15 minutes)

- Gather whole group.
- Give students specific, positive feedback about how they recorded their work.
- Display the **Model Sort of Plant Stages** showing the stages of a carrot and apple. Say:
“I want you to look closely at the way I’ve sorted the images because I’ve sorted them in a way that will help us figure out the topic for the next few weeks.”
- Turn and Talk:
“What do you observe about the way I sorted the images?” (Responses will vary, but may include: Both sorts have the same parts.)
- Invite students to take a closer look at each plant part. Say:
“You observed that the sort shows how a seed becomes a fruit in different stages.”
- Point to each part of the sort and say each stage aloud. Point and say:
“Seed, plant, flower, fruit.”
- Direct students’ attention to the **Module Guiding Question anchor chart**. Say:
“For the next few weeks you will be researching the module guiding question: How do we get the fruits, flowers, and vegetables we enjoy?”

- Turn and Talk:

“How do you think we get the fruits, flowers, and vegetables we enjoy?”

- If productive, use a Goal 4 Conversation Cue to encourage students to explain why a classmate came up with a particular response:

“Who can explain why your classmate came up with that response?”

- Say:

“We will research the module guiding question together in the next few weeks.”

Meeting Students' Needs

- For ELLs: Mini Language Dive. “How do we / get the fruits, flowers, and vegetables / we enjoy?”

- Deconstruct: Invite students to discuss the meaning of the sentence and grapple with the meaning of each chunk. Encourage extended conversation and practice with the focus structure in the highlighted chunk, keeping the following language goals in mind:

“What?”/ Meaning: we enjoy refers to the fruits, flowers, and vegetables. We can also add that in the beginning of the chunk. Suggested questions: “What is it that we enjoy? How do you know?” (noun clause)

- Practice: How do we get the fruits, flowers, and vegetables we ____? (eat, share, love)
- Reconstruct: Reread the sentence. Ask:

“Now what do you think the sentence means?”

“How does your understanding of this sentence add to your understanding of our module guiding question?”

- Practice: Invite students to use the sentence to ask different questions about plants. Suggestion: ____ do we ____ the fruits, flowers, and veggies we enjoy? Ask:

“What is another way to say this sentence?”

- For students who may need additional support with comprehension: Provide visuals (e.g., photographs) for each keyword on the Module Guiding Question anchor chart (e.g., think, fruits, flowers, vegetables, enjoy). (MMR)