

Lesson 4: Reading and Writing to Research: Living Things Need Air



CCS Standards

- **RI.K.1:** With prompting and support, ask and answer questions about key details in a text.
- **RI.K.2:** With prompting and support, identify the main topic and retell key details of a text.
- **RI.K.3:** With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- **RI.K.4:** With prompting and support, ask and answer questions about unknown words in a text.
- **RI.K.7:** With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
- **W.K.8:** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- **L.K.1c:** Form regular plural nouns orally by adding /s/ or /es/ (e.g., dog, dogs; wish, wishes).



Daily Learning Targets

- I can read a text to research what makes something living. (RI.K.1, RI.K.1, RI.K.3, RI.K.4, RI.K.7)
- I can record information from my research about what makes something living. (W.K.8)

Ongoing Assessment

- During Reading Aloud to Research in Work Time A, continue to use the Reading Informational Text Checklist to track students' progress (see Assessment Overview and Resources).
- Collect students' Living Things research notebooks as evidence of progress toward W.K.8.

Agenda

1. Opening

- A. Poem and Movement: "What's Alive and What's Not?" Version 2 (15 minutes)

2. Work Time

- A. Reading Aloud to Research Living and Nonliving Things: *What's Alive?*, Pages 15 and 18 (15 minutes)
- B. Engaging the Researcher: Making Observations (10 minutes)
- C. Independent Writing: Living Things Research Notebook (15 minutes)

3. Closing and Assessment

- A. Reflecting on Learning (5 minutes)

Teaching Notes

Purpose of lesson and alignment to standards:

- The Opening and Work Times A, B, and C all contain repeated routines from Lessons 2–3. Refer to those lessons for more detail as necessary.
- In Work Time C of this lesson, ELLs may participate in an optional Language Dive that guides them through the meaning of a sentence from page 18 of *What's Alive?* using a new Language Dive Guide format to be introduced in greater detail during Lesson 5. The focus of this Language Dive is giving students an opportunity to discuss and practice how a sentence with a conditional clause functions. Students then apply their understanding of the meaning and structure of this sentence when writing in their Living Things research notebook and discussing how plants live and breathe throughout the remainder of the unit. Refer to the Module 1 Appendix for additional information regarding a consistent Language Dive routine.

How this lesson builds on previous work:

- In Lesson 3, students listened to selected pages of *What's Alive?* to focus on how all living things need food and water. In this lesson, they listen to selected pages to focus their research on the pattern that all living things need air. Continue to reinforce the value of revisiting this rich and complex text to think about the important concepts, learn complex Vocabulary, and discern the pattern that all living things have the same basic needs.
- Students continue to revise the Sorting Living and Nonliving Things anchor chart to show new understandings.

Areas in which students may need additional support:

- During Work Time B, students observe how different living things breathe. Specifically, they observe Plant 3, which has been deprived of air, and Plant 1 (the healthy plant). To ensure there is no scientific misunderstanding, emphasize that plants and trees cannot breathe as we do, but they do take in air and release air, which is similar to how we breathe air in and out.
- Similar to Lesson 3, students independently write in the Living Things research notebook. Continue to consider any additional supports that may provide better access to the material or aid students who continue to work on fine motor skills.

Down the road:

- In Lesson 5, students will revisit the Sorting Living and Nonliving Things anchor chart after reading aloud to research to revise it for accuracy and reflect new understandings.
- In Lesson 5, students will continue observing plants. They will use the observations from Lessons 3–5 and researched information as evidence for a Science Talk in Lesson 8 to answer the question: “Are trees living? Why or why not?”

In advance:

- Strategically pair students for work during the Opening.
- Prepare:
 - Living Things Word Wall cards for *seedling*, *breathe*, and *air*.
 - Plant 1 and Plant 3 to observe and sketch in Work Time C.
 Follow care guide instructions in the Directions for Living Plants Observation Setup (see Lesson 1 supporting Materials).

- Distribute Materials for Work Time C at student workspaces.
- Post: Learning targets, “What’s Alive and What’s Not?” Version 2, and applicable anchor charts (see Materials list).
- Preview the Language Dive Guide and consider how to invite conversation among students to address the language goals suggested under each sentence strip chunk (optional; see supporting Materials).
- Cut out the Language Dive Chunk Pictures II: *What’s Alive?* for use during the Language Dive (optional; see supporting Materials).

Technology & Multimedia

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

- Continue to use the technology tools recommended throughout Modules 1–2 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 K.1.A.1, K.1.B.4, K.1.C.10, and K.1.C.12

Important points in the lesson itself

- The basic design of this lesson supports ELLs with opportunities to engage interactively with a familiar poem and complex text as well as observe, discuss, and write about pictures and plants in the classroom.
- ELLs may find it challenging to use nuanced Vocabulary to describe what they observe in the pictures and plants. Support them by modeling referencing the Word Wall, as well as offering structured opportunities to practice frames and Vocabulary with a partner of higher language proficiency.

Levels of support

For lighter support:

- During Turn and Talk times, invite students to share what their partner said to reinforce social language learning and gauge use of the Vocabulary. Make learning transparent by encouraging students to identify how they are collecting evidence throughout the lesson by reading, observing, and discussing.

For heavier support:

- During Work Time B, students may benefit from having illustrated index cards with adjectives to help guide their discussions. Circulate and offer students options between two adjectives to describe the pictures and plants. Use academic language as you have these inter-

actions. (Examples: “Would you say this plant is bright green or yellowish?” “Would you say this plant is strong and thriving or wilting?”)

Universal Design for Learning

- **Multiple Means of Representation (MMR):** In this lesson, students engage with a text and photographs for gathering information and then use this information to record an observation. Recall that this transfer of information into knowledge requires metacognitive skills and strategies. Some students may need support in connecting and remembering the information presented. Continue to provide scaffolds to students to support diverse abilities in using these strategies.
- **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.
- **Multiple Means of Engagement (MME):** Sustained engagement and effort is essential for student achievement. Continue to remind students of the goal of the work they are doing. Returning to the learning goals lifts up their value and relevance to students.

Vocabulary

Key:

(L): Lesson-Specific Vocabulary

(T): Text-Specific Vocabulary

(W): Vocabulary Used in Writing

New:

- seedling, breathe, air (L)
- hatch, beak, underside (T)

Review:

- plural, singular, noun (L)

Materials

- ✓ “What’s Alive and What’s Not” Version 2 (one to display)
- ✓ “What’s Alive and What’s Not” Verse 4 template (one per pair)
- ✓ “What’s Alive and What’s Not” noun cards (one set per pair)
- ✓ Living Things Criteria anchor chart (begun in Lesson 3)
- ✓ *What’s Alive?* (from Lesson 2; one to display; for teacher read-aloud)
- ✓ Living Things Word Wall cards (new; teacher-created; three)
- ✓ Living Things Word Wall (begun in Lesson 1; added to during Work Time A; see Teaching Notes)
- ✓ What Researchers Do anchor chart (begun in Lesson 1)
- ✓ Whales! photograph (one to display)
- ✓ Alligator photograph (one to display)
- ✓ Plant 1 (from Lesson 2; one per small group)
- ✓ Plant 3 (one per small group)

- ✓ Plant photographs (optional; from Lesson 2; Plant 1 and Plant 3; one per small group)
- ✓ Living Things research notebook (begun in Lesson 2; added to during Work Time C; page 3; one per student and one to display)
- ✓ Pencils (one per student)
- ✓ Crayons (class set; variety of colors per student)
- ✓ Living Things research notebook (from Lesson 2; example, for teacher reference)
- ✓ Sorting Living and Nonliving Things anchor chart (begun in Lesson 2; manipulated during the Closing)
- ✓ Language Dive Guide II: *What's Alive?* (optional; for ELLs; for teacher reference)
 - Language Dive Chunk Chart II: *What's Alive?* (optional; for ELLs; for teacher reference)
 - Language Dive Sentence Strip Chunks II: *What's Alive?* (optional; for ELLs; one to display)
 - Language Dive Chunk Pictures II: *What's Alive?* (optional; for ELLs; one set per student)

Opening

A. Poem and Movement: “What’s Alive and What’s Not?” Version 2 (15 minutes)

- Gather students whole group and tell them that they will revisit the poem “What’s Alive and What’s Not?” to continue their work with singular and plural nouns.
- Briefly review the definition of *noun* (a person, place, or thing), *singular* (one), and *plural* (many; more than one).
- Follow the same routine from the Opening of Lesson 3 to read “**What’s Alive and What’s Not?**” **Version 2** and use gestures to signal the plural and singular nouns.
- Pause at the blank spaces in Verse 4.
- Display “**What’s Alive and What’s Not?**” **Verse 4 template** and it read aloud.
- Tell students that today they will work with a partner to change the verse using singular and plural nouns.
- Demonstrate the following routine with a student volunteer as your partner:
 - Display a “**What’s Alive and What’s Not?**” **noun card** and read the word aloud. Tell students that they can use the icons to help them read the word.
 - Direct students’ attention to the end of the word and icon(s) to determine whether the word is singular or plural.
 - Place the “What’s Alive and What’s Not?” noun card on the “What’s Alive and What’s Not?” Verse 4 template.
 - Have the student volunteer select a “What’s Alive and What’s Not?” noun card and place it on the template.
 - With the student volunteer, continue taking turns selecting “What’s Alive and What’s Not?” noun cards to complete the poem.
 - Read aloud the new verse together with the student volunteer.
- Move students into pairs and distribute a set of “What’s Alive and What’s Not?” noun cards and a “What’s Alive and What’s Not?” Verse 4 template to each pair.
- Invite students to begin working.

- Circulate and listen for students to use singular and plural nouns accurately in the verse. Take note of student progress toward L.K.1c.
- After about 5 minutes, collect the noun cards and templates.
- Provide students with specific, positive feedback on their ability to use singular and plural nouns.

Meeting Students' Needs

- For ELLs and students who may need additional support with comprehension: (Color Coding) Consider color-coding the whole word or the -s and -es at the end of each noun using the same pattern/color from Lesson 3. (MMR)
- For ELLs: (Illustration) If you've created the illustrated index cards explained in Lesson 3, consider inviting a student to place them correctly near the text they represent.
- For students who may need additional support with communication and engagement: Continue to strategically pair students with a strong, politely helpful partner to support their efforts at changing the verse. (MME)

Work Time

A. Reading Aloud to Research Living and Nonliving Things: *What's Alive?*, Pages 15 and 18 (15 minutes)

- Refocus whole group.
- Direct students' attention to the posted learning targets and read the first one aloud:

"I can read a text to research what makes something living."
- Direct students' attention to the **Living Things Criteria anchor chart** and review it, modeling a signal for the criterion air (e.g., taking a deep breath).
- Tell students that as you continue reading parts of the book today, they will read as researchers. That means they will read to find information to help them answer the unit guiding question: "How do we know that something is living?"
- Guide students through the routine from Work Time B of Lesson 2 to read aloud pages 15 and 18 of *What's Alive?* As you read, invite students to use the signal for air as they listen.
 - Fluently read each page, pausing to:
 - Define in context the following words as you read them in the text: *hatch* (to break out of an egg), *beak* (the hard part of a bird's mouth), and *underside* (the under or lower side or surface; bottom).
 - As you read, pause after each page and invite students to act out how the different living things need air.
 - Turn and Talk:

"What information does this page tell us about how to know if something is living?"
- When reading page 18, show students the **Living Things Word Wall cards** for *seedling* (a young tree or plant grown from a seed), *breathe* (to take air in and out), and *air* (what is in the space around the earth; living things need air to live) and follow the same process established

in Modules 1–2: provide their definitions, clap out their syllables, use them in a sentence, and place the Word Wall cards and pictures for them on the **Living Things Word Wall**.

- After reading both pages 15 and 18, ask:
 - “*Was anything the same about the (cat, bird, flower, and tree)?*” (Yes, they all need air; etc.)
 - “*How do we know that birds and plants are living?*” (They both breathe air.)
- Tell students that as in previous lessons, next they will observe more living things to gather more evidence to try to answer the unit guiding question: “How do we know that something is living?”

Meeting Students' Needs

- For ELLs: (Text Illustrations) After defining each word, invite students to point to where they see the words or concepts you highlight from the text exemplified in the illustrations (hatch, beak, underside, seedling, breathe, air).
- For ELLs: (Modeling Response) After reading and before Turn and Talk, consider demonstrating how students can make their own complete sentence frames to respond by underlining or highlighting the words in the question that we use to answer the question. (Example: “How do we know that birds and plants are living?” We know birds and plants are living because _____.)
- Before reading, provide white boards and dry-erase markers as an option for students to record (in drawing or writing) their ideas. (MMR, MMAE)
- For students who may need additional support with oral language and processing: Allow ample wait time during the discussion. (MMAE, MME)

Work Time

B. Engaging the Researcher: Making Observations (10 minutes)

- Refocus students whole group.
- Direct students' attention to the **What Researchers Do anchor chart** and briefly revisit the idea:
 - “*observe closely*”
- Remind students that to “observe closely” means to look at something carefully.
- Follow the routine from Work Time C of Lesson 2 to guide students through closely observing each of the following: **Whales! photograph** and **alligator photograph, Plant 1 and Plant 3** (or **plant photographs**), so they can talk, draw, and write about them:
 - Prompt students to “look at the whole” and use the accompanying gesture.
 - Prompt students to “look from the bottom to the top” and use the accompanying gesture.
 - Prompt students to “look from side to side” and use the accompanying gesture.
 - Prompt students to “pick one spot and zoom in” and use the accompanying gesture.
 - Prompt students to “look again at the whole” and use the accompanying gesture.

- Turn and Talk:
“What did you observe about how living things need air?” (When the plant didn’t get air, its color was not as bright. It looked yellowish.)
- 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.” (Responses will vary.)
- Circulate and listen in as students share. Take note of students’ understanding of the pattern that all living things need air and follow up with any students who share misconceptions.
- Offer students specific, positive feedback on their close attention during the observation time.

Meeting Students’ Needs

- For ELLs: (Fishbowl) Before releasing students to discuss their observations with a partner, invite two students to share one observation each in a Fishbowl. Select students who will be strong language models. After students independently discuss with a partner, conduct a second Fishbowl, this time selecting at least one student with emerging proficiency.
- For ELLs: (Collocation) Remind students that we often put the word *that* after “I observed.”
- For ELLs: (Partner Share-Out) Invite students to share what their partners said to promote attentive listening, retelling, paraphrasing, and peer language modeling.
- For ELLs: (Record Responses) Record what students say, noticing aloud different ways students say their sentences. (Example: One student may begin using “I observe,” while another may simply dive into his or her observation as in the example: “When the plant....”) Reaffirm that while we can use frames, there are many ways to share our thoughts in language.
- For ELLs: (Celebrate) Consider celebrating students who exemplify taking risks by sharing whole class.
- For students who may need additional support with working memory: Continue to invite students to record their observations (in drawing or writing) while they view the photographs. (MMAE)

Work Time

C. Independent Writing: Living Things Research Notebook (15 minutes)

- Refocus whole group. Remind students that they have been using their research notebook for a few days now, so they should be getting comfortable with the routine.
- Direct students’ attention to the posted learning targets and read the second one aloud:
“I can record information from my research about what makes something living.”
- Display page 3 of the **Living Things research notebook**. Tell students that similar to Lesson 3, they will select one of the two plants to record an observation about:
 - Plant 1 (the healthy plant)
 - Plant 3 (the wilted plant that did not get fresh air)

- Follow the same routine from Work Time C of Lesson 2 to guide students through completing page 3 of their research notebook:
 - Tell students the following Materials are already at their workspaces: Living Things research notebook, **pencils**, and **crayons**.
 - Dismiss students to their workspaces, inviting them to safely and respectfully move like they are breathing air.
 - Invite students to begin working on page 3. Circulate to support students and refer to the **Living Things research notebook (example, for teacher reference)** as necessary.
 - After about 8 minutes, signal students to stop working and collect students' notebooks.
 - Gather whole group.
 - Offer students specific, positive feedback on their drawing and writing for their observations.

Meeting Students' Needs

- For ELLs: During or after Work Time C, guide students through a Language Dive. Refer to the **Language Dive Guide II: What's Alive?** and **Chunk Chart II: What's Alive?** Display the **Sentence Strip Chunks II: What's Alive?**
- For ELLs: (Extrapolating from Drawing) Consider inviting students to draw their idea first and then offer support by asking about details in their drawing.
- For students who may need additional support with self-regulation: When giving students a warning before the transition, continue to provide a clear routine for what to do with unfinished work and use a visual timer. (MME)

Closing and Assessment

A. Reflecting on Learning (5 minutes)

- Direct students' attention to the **Sorting Living and Nonliving Things anchor chart** and remind them that this chart shows their understanding of living and nonliving things.
- Tell students that now that they have learned how all living things breathe air, they can use that information to *revise*, or make changes to, which things should be in the Living, Nonliving, or Not Sure Yet columns.
- Follow the routine from the Closing of Lesson 3 to guide students in revising their thinking on the anchor chart:
 - Review the necessary sentence frame as needed: "This makes me think _____."
 - Ask:
"What cards should we move on the Sorting Living and Nonliving Things anchor chart? Why?" (Responses will vary, but may include: We should move the robot to Nonliving because robots do not breathe air.)

- 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? I’ll give you time to think.” (Responses will vary.)

- Move the images to the different categories as instructed by the students. (In this lesson, begin making only the changes that reflect accurate information about living and nonliving things.)
- Invite students to reread the revised anchor chart with you and tell them that in the next lesson they will continue thinking about living things and another need they all have: the need to move and grow.

Meeting Students’ Needs

- For ELLs: (Metacognition: Sources of Learning) Briefly facilitate a final round of Turn and Talk and invite students to identify the research sources today: “Where did we get our evidence? What were our sources?” (videos, pictures, plants, book)
- For students who may need additional support with self-assessment: Review the learning targets introduced in this lesson. Ask students to give specific examples of how they worked toward achieving them. (MME)