

Lesson 1: Building Background Knowledge: What Do You Know about Fossils?



CCS Standards

- **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.
- **SL.2.2:** Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.



Daily Learning Targets

- I can describe the details I notice in pictures. (SL.2.2)
- I can record and ask a question about fossils. (RI.2.1)

Ongoing Assessment

- During Work Time A, circulate and listen for students to use descriptive language as they talk about their tea party picture. (SL.2.2)
- During Work Time B, circulate and observe as students write a question about fossils. Observe whether they are able to generate and record a question, as well as use the Question Words sheet as a resource when needed. (RI.2.1)
- During Work Time C, listen as students share their question about fossils. Notice whether they are able to read their question aloud, as well as whether the content of the question pertains to the topic of fossils. (RI.2.1)

Agenda

1. Opening

- A. Engaging the Learner: Mystery Journal Entry and Picture Clue (10 minutes)

2. Work Time

- A. Picture Tea Party: Studying Pictures (20 minutes)
- B. Noticing and Wondering: Questions about Fossils (20 minutes)

3. Closing and Assessment

- A. Reflecting on Learning (10 minutes)

Teaching Notes

Purpose of lesson and alignment to standards:

- This lesson launches students into a new topic of study: fossils. During the Opening and Work Time A, students are presented with clues about the topic and make guesses about what it could be. Nurturing an inquiry-rich classroom environment begins with asking questions and cultivating curiosity. Students make observations and ask questions, which supports them in constructing a schema for fossils. (RI.2.1, SL.2.2)

- During Work Time A, students participate in the Picture Tea Party protocol. Consider how familiar they are with this protocol and reallocate class time spent introducing it as necessary.
- During the Closing, students are presented with one of the Unit 1 guiding questions: “What do paleontologists do?” This question will be explored in the unit through both narrative nonfiction and informational texts about paleontologists.
- To allow for a volume of reading on the topic of fossils for this module, see the K–5 Recommended Text List. Ensure that a variety of informational and narratives texts below, on, and above grade level for this topic are available during independent reading in the K-2 Labs and K-2 Reading Foundations Skills Block.

How this lesson builds on previous work:

- This module builds on the foundation established in Module 1, reinforcing routines, protocols, and resources created or introduced.
- Throughout Module 1, students were introduced to Goal 1 and 2 Conversation Cues to promote productive and equitable conversation. Continue using Goal 1 and 2 Conversation Cues in this way, considering suggestions within lessons. Refer to the Module 1 Appendix for additional information on Conversation Cues.

Areas in which students may need additional support:

- Some students may be challenged to describe their picture during the Picture Tea Party protocol. If needed, probe students using additional questions such as: “What colors do you see in your photo? What shapes do you see in your photo? What textures do you see in your photo?”

Down the road:

- The Opening for this lesson is the first in a series of three parts. Additional journal entries and photo clues will be revealed in the first lesson of Units 2 and 3. Consider posting the clues (journal entry and photo) so they can be easily referenced throughout the module.

In Lessons 2–7, students will hear a close read-aloud of the narrative nonfiction text *Stone Girl*, *Bone Girl*.

In advance:

- Preview the mystery journal entry and the Opening portion of the lesson to familiarize yourself with its contents. When reading the journal entry aloud to students, do not reveal or confirm the topic of study.
- Cut out photo clue #1 and the Picture Tea Party protocol pictures.
- Distribute materials for Work Time B at student workspaces to ensure a smooth transition.
- Review the Picture Tea Party protocol. (Refer to the Classroom Protocols document for the full version of the protocol.)
- Post: Learning targets, photo clue #1, Question Words sheet, and Unit 1 Guiding Questions anchor chart.

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

- Work Time A: Record students as they participate in the Picture Tea Party protocol to listen to later to discuss strengths and what they could improve on, or to use as models for the group. Most devices (cell phones, tablets, laptop computers) come equipped with free video and audio recording apps or software.
- Closing: Record questions about fossils in an online format like Padlet (<https://padlet.com/>) to share questions with families.

Supporting English Language Learners

Supports guided in part by CA ELD Standards 2.I.B.5 and 2.I.B.6

Important points in the lesson itself

- The basic design of this lesson supports ELLs with extensive opportunities for oral language development, in the formation of both statements and questions. The teacher model before each Work Time provides students with examples of standard syntax (word order) in English and the Think-Pair-Share protocol allows students to orally practice their questions before writing.
- ELLs may find the abundance of academic and domain-specific vocabulary overwhelming. Consider providing visuals and word banks throughout the lesson. For support with question formation, consider reviewing the meanings and uses of question words (examples: *who*, *what*, *when*, *where*).

Levels of support

For lighter support:

- During Work Time A, encourage students to use compound sentences as they describe their pictures, challenging themselves to vary linking words (examples: *and*, *also*, *additionally*, *although*, *despite*).

For heavier support:

- During Work Time A, invite students to act out part of the mystery journal entry.
- Create an Adjectives Construction board to support the development of adjective meaning and structure during Work Time A and throughout the module. On a trifold display board, use a removable fastener to attach adjective cards to one side of the board (examples: *yellow*, *pointy*). On the other side, attach pictures of nouns (examples: *fossil*, *bones*) and attach a sentence frame in the middle. (Example: "I notice a ____ [adjective + noun] in my picture.") Model choosing a noun plus an adjective that describes it, and place each word card in the correct place in the sentence frame.

Universal Design for Learning

- **Multiple Means of Representation (MMR):** In the Opening, students listen and follow along as a mystery journal entry is read aloud. Provide options for the display of information by offering individual copies of the mystery journal entry to support students' access to the information.
- **Multiple Means of Action & Expression (MMAE):** In Work Time A, students predict the focus of study based on clues from pictures. Provide options for expression and communication by offering sentence frames to support students in making predictions. (Example: "I think we might be studying ____ because I noticed ____ in the picture.")
- **Multiple Means of Engagement (MME):** In Work Time B, students think of and record a question about fossils. As you introduce the independent writing task, foster collaboration and communication by providing prompts that guide students in knowing when and how to ask classmates or teachers for help. (Example: "When you are writing your question, you may get stuck on a word. First, try your best to write the sounds you hear in the word. If you are still stuck, there are many people in the room to help you. You can ask a classmate or raise your hand for a teacher to help.")

Vocabulary

Key:

(L): Lesson-Specific Vocabulary

(T): Text-Specific Vocabulary

(W): Vocabulary Used in Writing

New:

- fossil, paleontologist (L)

Materials

- ☑ Mystery journal entry #1 (one to display)
- ☑ Photo clue #1 (one to display)
- ☑ Picture Tea Protocol anchor chart (new; teacher-created; see supporting materials)
- ☑ Picture Tea Party protocol pictures (one for teacher modeling and one per student)
- ☑ Question Words sheet (one to display)
- ☑ Question about Fossils sheet (one for teacher modeling and one per student)
- ☑ Pencils (one per student)
- ☑ Unit 1 Guiding Questions anchor chart (new; teacher-created; see supporting materials)

Opening

A. Engaging the Learner: Mystery Journal Entry and Picture Clue (10 minutes)

- Invite students to the whole group area.
- With excitement, share that students will begin to study a new topic today.
- Display the mystery journal entry #1.
- Share that you have found a mystery journal entry from someone's diary, and this entry will give students some clues about the topic they will be studying.
- Invite students to listen carefully as you read aloud to answer this question:
“Who is the writer of this journal entry, and what is he or she doing?”
- While still displaying the text, read the first paragraph slowly, fluently, with expression, and without interruption.
- Reread the last sentence in the paragraph, emphasizing the underlined word: “The other paleontologists with me were excited too.”
- Using a total participation technique, invite responses from the group:
“What is a paleontologist?” (Responses will vary.)
- Do not confirm responses or reveal the definition yet.
- Draw students' attention back to the text and read the second and third paragraphs slowly, fluently, with expression, and without interruption.
- Reread the second sentence in the third paragraph, emphasizing the underlined words: “I quickly checked to make sure I had all of my tools ... a pickax, my brushes, and even my magnifying glass.”
- Using a total participation technique, invite responses from the group:
“Why would a person need to use these tools?” (Responses will vary.)
- Draw students' attention back to the text and read the fourth paragraph slowly, fluently, with expression, and without interruption.
- Reread the last sentence in the paragraph, emphasizing the underlined words: “I really hope we find what we've come here to find....”
- Using a total participation technique, invite responses from the group:
“What do you think the writer wants to find?” (Responses will vary.)
- Share that you have another clue, something that matches the journal entry.
- Introduce **photo clue #1** and invite students to look closely at it for 30 seconds.
- Using a total participation technique, invite responses from the group:
“What do you notice in this photo clue?” (a man lying down on the ground, a big bone)
- Invite a few students to share their observations but do not confirm the topic of study yet.
- Invite students to turn and talk with an elbow partner:
“What topic do you think we might be studying?” (Responses will vary.)
- Share that now students will participate in a new protocol that will give more clues about the topic of study.

Meeting Students' Needs

- Before sharing the questions (“Who is the writer of this journal entry, and what is he or she doing?”), support students’ information processing by displaying a sentence strip of each question. In addition, consider providing individual index cards with each question for students. (MMR)
- As students respond to the questions posed as the mystery journal entry is read aloud, support their expressive skills by varying options for responses and reducing barriers to expression. For example, invite students to draw their responses. (MMAE, MME)
- For ELLs: Provide visual support for the tools mentioned in the mystery journal entry (*pickaxe, brushes, magnifying glass*) and invite students to share the translations of these words in their home languages, if they know them. Consider embedding these images in the letter, and illustrating other vocabulary as well (e.g., *mountain*).

Work Time

A. Picture Tea Party: Studying Pictures (20 minutes)

- Direct students’ attention to the posted learning targets and read the first one aloud:
“I can describe the details I notice in pictures.”
- Tell students they will now describe the details in pictures using a new protocol called a Picture Tea Party.
- Prompt students to raise their hand if they have ever attended a tea party. Share that at a tea party, a person might *mingle*, or talk to, different groups of people. This protocol will be like a tea party because students will talk to different groups of people.
- Tell students they will now use the Picture Tea Party protocol to think about what your next topic of study will be.
- Move students into pre-determined groups of three or four and invite students to label themselves A, B, C, etc.
- Referring to the **Picture Tea Party Protocol anchor chart**, explain the steps to students:
 - Point to the image of the person looking at the picture. Tell students that you will give them a picture. When they get their picture, they should look at it closely. Have students put on their imaginary glasses to indicate looking closely.
 - Point to the image of the people facing each other with speech bubbles. Tell students that once everyone has looked closely at their picture, you will signal them to share with their small group using the sentence frame “In my picture, I see_____.” Group member A should share first.
 - Point to the image of the people raising their hands. Once every group member has shared, they should raise their hands to show they have finished talking and listening.
 - Point to the image of the people walking. Tell students that once all groups have their hands in the air, you will signal them to calmly and quietly walk around the room to form a new group of three or four students. Once in their new groups, they should re-label themselves A, B, C, etc.

- Point to the image of people sitting. Tell students that once they have formed a new group, they should be sitting with their group.
 - Point to the image of the people facing each other with speech bubbles. Tell students that this time, they will share a *prediction* about what they might learn or a question about their picture, using a sentence frame. Group member A should share first. Review the definition of *prediction* as necessary (a statement about something that might happen or is expected to happen). Post the following sentence frames:
 - “I see _____, so I predict we might learn about _____.”
 - Point to the image of the people raising their hands. Once every group member has shared, they should again raise their hands to show they have finished talking and listening.
- Direct students’ attention to the **Classroom Discussion Norms anchor chart** and quickly review their jobs as speakers and listeners.
 - Distribute **Picture Tea protocol pictures** and guide students through the Picture Tea Party protocol using the Picture Tea Party anchor chart.
 - Once all groups have shared, invite students to walk back to the whole group area and bring their Picture Tea Party picture with them.
 - Give students specific, positive feedback on their work during the Picture Tea Party protocol. (Example: “I noticed Sarah looking closely at her picture for details to share with her group.”)
 - Invite students to turn and talk to a partner:

“Based on the pictures in the Picture Tea Party protocol, what topic do you think our class is going to study?” (Responses will vary, but may include: science, dinosaurs, bones.)
 - Invite several students to share their responses.
 - If productive, cue students to expand the conversation by saying more:

“Can you say more about that?” (Responses will vary.)
 - With excitement, confirm or reveal that the new topic of study will be fossils.
 - Define *fossils* (the remains or traces of a living animal or plant from a long time ago).
 - Share that students will learn a lot about fossils in this module.
 - Prompt students to silently think about:

“What questions do you have about fossils?”
 - Share that, soon, students will share what they are wondering about fossils.

Meeting Students’ Needs

- For ELLs: Consider using a call and response participation technique with the sentence frame so ELLs have some practice with the frame. Example:

Teacher: I
- Student: notice
- **Teacher: _____**
- Student: in my picture.

- For ELLs: Explain that a detail is one piece of information. Introduce students to the Adjectives Construction board (see “For heavier support” in the Supporting English Language Learners column above for more details) and model using it. Remind students that adjectives describe people, animals, places, and things, and give pieces of information, or details, about something. Invite students to describe the details in a few pictures, using adjectives, before starting the Picture Tea Party.

Work Time

B. Noticing and Wondering: Questions about Fossils (20 minutes)

- Direct students’ attention to the posted learning targets and read the second one aloud:

“I can record and ask a question about fossils.”
- Underline the following words and reread the learning target aloud:

“I can record and ask a question about fossils.”
- Using a total participation technique, invite responses from the group:

“What are the two things that this learning target says students will do?” (record/write and ask a question)
- Confirm that this target means students will write and ask a question about fossils.
- Model looking at a Picture Tea Party protocol picture and asking a question about it:
 1. “I see some dirt in this picture and something that looks like a bone.”
 2. “I am wondering what kind of bone this is and what animal it came from.”
 3. “I will ask my question: ‘What animal did this bone come from?’”
- Display the **Question Words sheet** and read each word aloud. Explain that these words are commonly used to begin sentences that ask a question.
- Invite students to Think-Pair-Share with an elbow partner:

“What question do you have about fossils?” (Responses will vary.)
- If needed, prompt students to look at their Picture Tea Party protocol picture and the Question Words sheet to help them think of a question about fossils.
- As students share their question with their partner, circulate and listen in. As needed, remodel asking a question or refer students to the Question Words sheet.
- After 1–2 minutes, refocus students whole group.
- Display the **Question about Fossils sheet**.
- Model recording a question about fossils on the sheet, referring to the Question Words sheet to help with the spelling of the word *what*. If needed, briefly review how to write a question mark also.
- Reread the sentence aloud and confirm aloud that it is in fact a question by pointing out the question word and question mark to students: “What animal did this bone come from?”
- Invite students to transition safely to their workspaces, carrying their Picture Tea Party protocol picture with them, and begin recording their question on the pre-distributed Question about Fossils sheets using **pencils**.

- Give students 4–6 minutes to record a question. While they work, circulate and prompt students to read their questions aloud to you. Consider asking them to locate the question word and question mark on their Question about Fossils sheet. As needed, refer students to the Question Words sheet and re-model asking a question and/or drawing a question mark.
- Signal students to stop working using a designated chime or signal. Direct them to clean up and bring their Question about Fossils sheet and Picture Tea Party protocol picture to the whole group area with them.

Meeting Students' Needs

- For ELLs: Consider providing a word bank with words that match the Tea Party protocol pictures. Encourage students to use the word bank when asking and writing their questions.
- For ELLs: After reading each word on the Question Words sheet, provide an example of a question using that word. Consider writing these examples in a central location for students to refer to as they form their questions during the Think-Pair-Share.
- As students begin writing, vary methods for fine motor responses by offering options for drawing utensils (e.g., thick markers or colored pencils) and writing tools (e.g., fine-tipped markers, pencil grips, slanted boards). (MMAE)
- As students are signaled to stop working, support self-regulation and independence during the transition by providing a clear routine for what to do with unfinished work and using a visual timer. (MME)

Closing and Assessment

A. Reflecting on Learning (10 minutes)

- Direct students to place their Picture Tea Party protocol picture and Question about Fossils sheet in their laps.
- Tell students they will now share their questions about fossils with the whole group.
- Invite students to take turns sharing their question about fossils. Consider recording or posting questions on a chart as they share.
- If productive, cue students to listen carefully:
“Who can repeat what your classmate said?” (Responses will vary.)
- Give students specific, positive feedback on sharing their questions. (Example: “Remi, I heard you ask your question in a clear, loud voice.”)
- Share that in this study of fossils, students will work to answer many of these questions.
- Remind students that in the Opening, they heard the writer of the mystery journal entry use the word *paleontologists*.
- Ask:
“Who studies fossils?” (Responses will vary, but may include: scientists, explorers.)

- Share that a person who studies fossils is called a paleontologist. So the mystery journal entry was written by a paleontologist!
- Define *paleontologist* (scientist who studies fossils for information about life in the past).
- Post the **Unit 1 Guiding Question anchor chart** and read the first question aloud:
“What do paleontologists do?”
- Share that students will learn a lot about fossils by answering this question and understanding the work that paleontologists do.

Meeting Students' Needs

- When defining *paleontologist*, support students' memory of this important term by providing an index card with a photo of a paleontologist with the tools mentioned in the mystery journal entry (pickax, brushes, magnifying glass). (MMR, MME)
- For ELLs: Celebrate common language successes and correct common language errors for formative language assessment as students share their questions.