

Grade 2: Module 2

Overview

2017 version

In this module, students build their literacy and science skills as they engage in a study of fossils. Students begin the module by participating in a close read-aloud of *Stone Girl, Bone Girl* by Laurence Anholt to explore the Unit 1 guiding questions: “What do paleontologists do?” and “How do characters respond to major events?” Students learn about Mary Anning and her role as a fossil hunter as they engage with key literature standards. Students focus on how Mary Anning responds to major events and challenges, and the overall structure of narratives through structured retells. In Unit 1, students are also introduced to the skill of answering selected response questions. Students also begin to learn about what fossils are and the work that paleontologists do. In Unit 2, students make a pivot to informational texts and engage more deeply in the study of fossils. Students’ learning is centered around the Unit 2 guiding questions: “What can we learn from studying fossils?” and “How do readers learn more about a topic from informational texts?”

Students begin the unit by engaging in a close read-aloud of various excerpts from the text *Fossils* by Ann O. Squire. Students then make the important transition of closely reading complex texts independently. Students are gradually introduced to close reading strategies as they read a few different nonfiction articles on fossils, such as how fossils can teach us about changes that have happened on Earth. In Unit 3, students take on the role of being authors as they work toward completing the performance task: adding detailed illustrations to a narrative produced during unit 3 about discovering a fossil. The unit begins with a focused read-aloud of *The Big Dinosaur Dig* by Esther Ripley. Through their analysis of the text, students begin to answer and unpack the Unit 3 guiding question: “How do authors write compelling narratives?” Students then imagine they are a character from this story and practice writing a narrative. The unit culminates as students write, revise, and illustrate their own narratives from the perspective of a paleontologist who has just discovered a fossil. **This performance task centers on CCSS ELA SL.2.5.**



Guiding Questions and Big Ideas

What do paleontologists do?

- *Paleontologists are people who look for, unearth, and study fossils.*

How do characters respond to major events?

- *Characters respond in different ways to major events and challenges in books.*

What can we learn from studying fossils?

- *Fossils can help us understand what plants and animals lived long ago and how the earth has changed.*

How do readers learn more about a topic from informational texts?

- *Readers use different strategies to learn about a topic from informational text.*

How do authors write compelling narratives?

- *Writers use various writing techniques to tell compelling stories.*

The 4 T's			
TOPIC	TASK		
Fossils Tell of Earth's Changes	Writing a Narrative about Discovering a Fossil		
TARGETS	TEXT		
CCSS explicitly taught and assessed: SL.2.5	<i>Stone Girl, Bone Girl</i> by Laurence Anholt; <i>Fossils</i> by Ann O. Squire; <i>The Big Dinosaur Dig</i> by Esther Ripley		



Performance Task

Illustrated Narrative about Discovering a Fossil

For this performance task, students carefully and accurately create detailed illustrations for each part of the narrative they wrote, revised, and edited for the Unit 3 Assessment. Students orally present their books to visitors at a Celebration of Learning at the end of the module. **This task addresses CCSS ELA W.2.3, W.2.5, L.2.1d, L.2.2, SL.2.5.**

Content Connections

This module is designed to address English Language Arts standards and to be taught during the content-based literacy block of the school day. This module also intentionally incorporates social studies content that many teachers across the nation are expected to address in second grade. These intentional connections are described below. (Based on your state or district context, teachers may also choose to address additional specific social studies standards during other parts of the school day.)

Science (based on NGSS) or NGSS:

- **2-ESS1-1:** Use information from several sources to provide evidence that Earth events can occur quickly or slowly.
- **3-LS4-1:** Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.

Note: This module uses second- and third-grade NGSS standards. Since the topic of fossils is compelling and concrete, students are learning about fossils and what they can teach us about what life was like long ago, and what slow changes have happened. In order to fully address the second-grade standard, students would need to study other slow changes on Earth, such as the erosion of rocks, and earth events that can happen quickly, such as the eruption of a volcano.

Habits of Character**Social-Emotional Learning Focus**

Central to EL Education curriculum is a focus on “habits of character” and social-emotional learning. Students work to become effective learners, developing mindsets and skills for success in college, career, and life (e.g., initiative, responsibility, perseverance, collaboration); work to become ethical people, treating others well and standing up for what is right (e.g., empathy, integrity, respect, compassion); and work to contribute to a better world, putting their learning to use to improve communities (e.g., citizenship, service).

In this module, students **work to become effective learners** by developing the mindsets and skills for success in college, career, and life.

Required Tradebooks (for purchase)¹ Recommended Texts (for volume of reading on the module topic)	Unit 1	Unit 2	Unit 3
1. Brandenburg, Aiki. <i>Fossils Tell of Long Ago</i> . Harper Collins Publishers, 1972.		✓	
2. Anholt, Laurence. <i>Stone Girl, Bone Girl</i> . Francis Lincoln Children's Books, 2006.	✓		
3. Gray, Susan Heinrichs. <i>Paleontology: The Study of Prehistoric Life (True Book: Earth Sciences)</i> . Scholastic, 2012. ISBN: 9780531282748			
4. Redmond, Shirley Raye. <i>The Dog that Dug for Dinosaurs</i> . Simon and Schuster Children's Publishing Division, 2004.	✓		
5. Ripley, Esther. <i>The Big Dinosaur Dig</i> . Dorling Kindersley Publishing, 2003.			✓
6. Squire, Ann O. <i>Fossils</i> . Scholastic, 2002.		✓	
7. Waters, Kate. <i>Curious about Fossils</i> . Penguin Young Readers, 2016.	✓		
8. Gray, Susan Heinrichs. <i>Paleontology: The Study of Prehistoric Life</i> . Scholastic, 2012.	✓		
Additional Texts (no purchase necessary; included in the module materials)	Unit 1	Unit 2	Unit 3
9. “Digging Up the Past.” 2016. Written by EL Education for instructional purposes. Lexile 470.		✓	
10. “Fossils and the Earth Long Ago.” 2016. Written by EL Education for instructional purposes. Lexile 490.		✓	
11. “Other Types of Fossils.” 2016. Written by EL Education for instructional purposes.		✓	
See K–5 Recommended Text List for suggestions of books, articles, and videos on the module topic.			

¹See stand-alone Required Trade Books list for procurement details, including the number of copies of each text.



Module-at-a-Glance

Weeks 1–3

Unit 1: Listening for Details: Learning about Paleontologists

Instructional Focus

- Introduction to topic
- Close read-aloud: *Stone Girl, Bone Girl*
- Introduction to answering selected response questions
- Retelling using the beginning, middle, and end of a story
- Describing how characters respond to major events and challenges
- Close read-aloud: *Stone Girl, Bone Girl*
- Practice answering selected response questions
- Retelling using the beginning, middle, and end of a story
- Describing how characters respond to major events and challenges
- Focused read-aloud: *Paleontology: The Study of Prehistoric Life*
- Building background knowledge on fossils and paleontologists
- Introducing the paleontologist's notebook
- Learning about the tools paleontologists use
- Learning about famous paleontologists

CCS Standards Assessed

- **RL.2.1, RL.2.2, RL.2.3, RL.2.5, RL.2.7, RI.2.1, RI.2.4, W.2.7, W.2.8, SL.2.1, SL.2.1a, SL.2.2, L.2.4, L.2.4b, L.2.6**

Assessments and Performance Task

- Unit 1 Assessment: Answering Questions about a Literary Text (**RL.2.1, RL.2.2, RL.2.3, RL.2.5, RL.2.7, SL.2.2**)

Weeks 3–5

Unit 2: Reading Informational Texts: Studying Fossils Closely

Instructional Focus

- Focused read-aloud: *Fossils Tell Us of Long Ago*
- Close read-aloud: *Fossils*
- Making observations and inferences: Categorizing pictures: Is this a fossil or not?
- Making observations and inferences: Making fossil impressions: Simulated impressions activity
- Close read-aloud: *Fossils*
- Using text features to locate information
- Using different strategies to determine the meanings of words
- Recording the steps of fossilization
- Structured discussions to describe the steps of fossilization

Fossils Tell of Earth's Changes

- Developing language with using collective nouns
- Launching close reading independently
- Close reading: *Other Types of Fossils* and *Fossils and The Earth Long Ago*
- Close reading strategies: Identifying the gist of a text and sections of a text
- Practice answering selected response questions
- Writing a museum display label
- Making observations and inferences: What fossils can tell us about the earth long ago

CCS Standards Assessed

- **RI.2.1, RI.2.2, RI.2.4, RI.2.5, RI.2.6, W.2.8, SL.2.1, SL.2.1a, SL.2.1b, SL.2.1c, L.2.1, L.2.1a, L.2.2, L.2.4, L.2.4a, L.2.4c, L.2.6**

Assessments and Performance Task

- Unit 2 Assessment: Answering Questions about an Informational Text (**RI.2.1, RI.2.2, RI.2.4, RI.2.5, RI.2.6, L.2.4a, L.2.4c**)

Weeks 6–8

Unit 3: Writing Narratives: Becoming Paleontologists

Instructional Focus

- Focused read-aloud: *The Big Dinosaur Dig*
- Analyzing *The Big Dinosaur Dig* as a mentor text for narratives
- Short writing tasks to practice writing techniques found in *The Big Dinosaur Dig*
- Developing language with irregular past-tense action verbs
- Analyzing a teacher-written model of a compelling narrative
- Writing a narrative about discovering a fossil based on Josh's experiences from *The Big Dinosaurs Dig*
- Using the writing process to write a compelling narrative
- Revising for temporal words
- Editing for irregular past-tense verbs and conventions
- Writing a narrative about discovering a fossil using a picture of a fossil and your own imagination
- Revising for temporal words
- Editing for irregular past-tense verbs and conventions
- Creation of the performance task: Adding detailed drawings to narratives
- Preparing for the Celebration of Learning: Reading our stories and creating a selected response question exit ticket for visitors
- End of module reflection
- Celebration of Learning

CCS Standards Assessed

- **RL.2.1, RL.2.3, RL.2.4, RL.2.5, W.2.3, W.2.5, W.2.8, SL.2.1, SL.2.1a, SL.2.1b, SL.2.4, SL.2.5, L.2.1, L.2.1d, L.2.1f, L.2.6**

Assessments and Performance Task

- Unit 3 Assessment: Writing a Narrative about Discovering a Fossil (**W.2.3, W.2.5, L.2.1d, L.2.2**)
- Final Performance Task: Illustrated Narrative about Discovering a Fossil (**W.2.3, W.2.5, L.2.1d, L.2.2**)

**CCS Standards****Reading—Literature**

- **RL.2.1:** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- **RL.2.2:** Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
- **RL.2.3:** Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
- **RL.2.4:** Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
- **RL.2.5:** Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
- **RL.2.7:** Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

Reading—Informational Text

- **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.2.4:** 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.2.6:** Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

Reading—Foundational Skills

See Reading Foundations Skills Block.

Writing

- **W.2.3:** Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.
- **W.2.5:** With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
- **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).
- **W.2.8:** Recall information from experiences or gather information from provided sources to answer a question.

Speaking and Listening

- **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.
 - A.** Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
 - B.** Build on others' talk in conversations by linking their comments to the remarks of others.
 - C.** Ask for clarification and further explanation as needed about the topics and texts under discussion.
- **SL.2.2:** Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
- **SL.2.4:** Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
- **SL.2.5:** Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.

Language

- **L.2.1:** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
 - A.** Use collective nouns (e.g., group).
 - D.** Form and use the past tense of frequently occurring irregular verbs (e.g., sat, hid, told).
 - F.** Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy).
- **L.2.2:** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- **L.2.4:** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.
 - A.** Use sentence-level context as a clue to the meaning of a word or phrase.

- B.** Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).
- C.** Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).
- **L.2.6:** Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).

Optional: Community, Experts, Fieldwork, Service, and Extensions

Community:

- Talk to the local geological, archaeological, and historical societies in your community, and inquire about local places in your community where students can dig for fossils.
- Make sure to invite staff, students, families, and other people from the community whom students have interacted with to the Celebration of Learning.

Experts:

- Invite librarians to talk about and read about famous paleontologists.
- Invite a local paleontologist to talk to students about the work paleontologists do and to show them examples of tools they use in the field.
- If there are no paleontologists in your community, consider setting up virtual communication (email, Skype, etc.) with a paleontologist to answer students' emerging questions about the work that paleontologists do.
- Consider collaborating with the art teacher at your school or an artist from the community to support students in creating detailed drawings for their performance task.

Fieldwork:

- Visit a local park to look for impressions in rocks and hardened mud.
- Visit a science museum to learn more about fossils and paleontologists.
- Consider holding the Celebration of Learning at a local museum where students visited or the library where students learned more about fossils.

Service:

- Invite students to revise and edit a page from their Paleontologist's notebook, and combine the pages and publish into a book titled "What We Have Learned about Paleontologists." Present this book to a kindergarten or first-grade class at your school.
- Invite students to create a how-to guide for people interested in looking for fossils, including information such as what tools they need and how they should care for the environment when caring for fossils.
- Invite students to create invitations for the Celebration of Learning. Encourage students to deliver the invitations to different classrooms, as well as to their families at home.
- Consider combining students' narratives into one book and delivering them as gifts to various classrooms in the school.

Fossils Tell of Earth's Changes

Extensions:

- Read a different version of the story of Mary Anning.
- Read a recommended text about another paleontologist. Study this paleontologist in depth and share the learning with the class.
- Invite students to research a different paleontologist, and write an informative paragraph about this person.
- Consider ordering a fossil collection. Invite students to examine the fossils using a hand lens and describe the fossils.
- Consider displaying the following video that describes the process of fossilization. Citation: Video. *How Fossils Are Formed*. YouTube, May 2009. Web 8 July 2016. <<https://www.youtube.com/watch?v=TVwPLWOo9TE>>.
- Consider displaying the following video to help students further understand the concept of what fossils can teach us about how the earth has changed over time. Citation: Video. *Making North America: Origins*. PBS, June 2016. Web 8 July 2016. <<http://www.pbs.org/wgbh/nova/earth/making-north-america.html#north-america-origins>>. Focus on minutes 43:32–46:29.
- Consider having students produce narratives about any fieldwork done at a local museum.
- Consider having students record their narratives, and presenting these recordings at the Celebration of Learning.

Preparation and Materials

See each Unit Overview for a list of any unusual physical materials required (such as puppets or props) for module lessons.

Note: Accountable independent reading begins as a formal homework routine in grade 3. Based on your school's stance on homework, you may consider starting this in grade 2. Refer to the Appendix for Independent Reading: Sample Plans and Grade 3: Module 1: Unit 2: Lesson 2 for recommendations on how to more formally launch independent reading. Refer to the Recommended Texts list for appropriate titles aligned to the module topic.

Technology & Multimedia

Tool Name	Purpose in This Unit	Suggested Use in This Unit	Website URL
Map	Use this link in Lesson 2 to help students understand the setting in <i>Stone Girl, Bone Girl</i> .	• Show world map and indicate Lyme Regis, England	https://geography.byu.edu/SiteAssets/outline%20maps/World.pdf
“Fossils for Kids” video from YouTube	Use this link in Lesson 8 to help teach students important foundational knowledge about fossils.	• Play the video for the whole class to 3:07	https://www.youtube.com/watch?v=mUJysq0o5JU
“Dig into Paleontology” video from YouTube	Use this link in Lesson 9 to help teach students important foundational knowledge about paleontology.	• Play the video for the whole class to 4:11	https://www.youtube.com/watch?v=1FjyKmpmQzc
Video for Science talk	Use this link in Lesson 7 to help students better under the Science Talk protocol.	• Play the video in its entirety.	https://vimeo.com/channels/eleducationk5curriculum
Video for Interactive Word Wall	Use this link in Lessons 8-10 to help students better under the Interactive Word Wall protocol.	• Play the video in its entirety.	https://vimeo.com/channels/eleducationk5curriculum
ABC News article	Consider showing this clip as a follow up to the mystery journal entries that are read aloud throughout the module in order to provide more information about the fossil discovery.	• Read aloud article or show additional pictures to class.	http://abcnews.go.com/International/researchers-discover-fossils-largest-dino-believed-walk-earth/story?id=23762377



Connections to the Labs

Labs continue to provide students with an engaging, hands-on place to build habits of character, literacy skills, and module related content understanding. There are four Labs for the second module: Create, Explore, Imagine, and Research. The labs are directly connected to the content of the module and should be implemented alongside the lessons.

Labs for this module focus on having students:

- Continue to grow their artistic skills by exploring a new medium: sculpture
- Experience, firsthand, the role of a paleontologist by participating in a simulated dig
- Work with classmates to dramatically reenact familiar stories
- Use research skills to learn more about high-interest, dinosaur-related topics

Build social-emotional skills through playing and collaborating with classmates



Connections to the Reading Foundations Skills Block

The Reading Foundations Skills Block is an hour of instruction that teaches students how to crack the alphabetic code. This block supports reading and writing conventions necessary for student success in the Reading Block, covering all Reading Foundations Standards and the Language Standards associated with spelling. Research and Standards-based instructional practices are designed to support teachers as they teach students how to read, write, and analyze words. Built-in instructional supports and resources provide teacher guidance for differentiation in both the Whole and Small Group settings based on each students' Phase of Reading and Spelling Development. The Skills Block includes one hour of instruction: 15–20 minutes of Whole Group and 45 minutes of Differentiated Small Group instruction.

Skills Block lessons for this module focus on having students:

- Read and spell words with new spelling patterns such as “oi”, “oy”, “ou”, and “ow”
- Read, spell, and understand the meaning of contractions with “am”, “is”, “not”, “would”, and “have”
- Continue to read and spell words with common prefixes such as “re-”, “un-”, and “pre-” and suffixes such as “-ed”, “-ing”, and “-er”
- Read words with endings such as “-tion” and “-sion”

Refer to each unit overview for more information regarding that unit, including information about what to prepare in advance, and extension opportunities.