

Lesson 3: Reading Informational Texts: Launching the Research Process



CCS Standards

- **RI.4.4:** Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*.
- **L.4.4:** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.



Daily Learning Targets

- I can explain how to determine if an internet source is reliable.
- I can find the gist and determine the meaning of unfamiliar vocabulary of my expert group animal web page. (RI.4.4, L.4.4)

Ongoing Assessment

- Gist chart (RI.4.4, L.4.4)
- Expert Group Animal Glossary (RI.4.4, L.4.4)

Agenda

1. Opening

- A. Reviewing Learning Targets (5 minutes)

2. Work Time

- A. Introducing Criteria for Reliable Internet Sources (15 minutes)
- B. Guided Practice: Reading for Gist and Identifying Unfamiliar Vocabulary (10 minutes)
- C. Expert Group Work: Reading for Gist and Identifying Unfamiliar Vocabulary (25 minutes)

3. Closing and Assessment

- A. Research Reading Share (5 minutes)

4. Homework

- A. Accountable Research Reading. Select a prompt and respond in the front of your independent reading journal.

Teaching Notes

Purpose of lesson and alignment to standards:

- Because this is the first time that students use a web page for research, the first part of this lesson focuses on identifying reliable sources and modeling how to use a web page to research, using the millipede as an example. Note that in this lesson the web pages have been chosen for students, so they are all reliable sources; however, it's important for students to understand how to recognize reliable and accurate websites for future research.

- Key understandings to be gleaned from expert group websites include appearance, habitat, and diet.
- In Closing and Assessment A, students share what they have read and learned from their independent reading texts. This sharing is designed as another measure for holding students accountable for their research reading completed for homework. This volume of reading promotes students' growing ability to read a variety of literary and informational texts independently and proficiently. (RI.4.10, RL.4.10, SL.4.1)
- This lesson is the third in a series of three that include built-out instruction for the use of Goal 3 Conversation Cues 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 3 Conversation Cues encourage students to deepen their thinking. Continue drawing on Goals 1 and 2 Conversation Cues, introduced in Module 1, and add Goal 3 Conversation Cues to more strategically promote productive and equitable conversation. In Module 3, Goal 4 Conversation Cues are also introduced. Refer to the Module 1 Appendix for additional information on Conversation Cues. Consider providing students with a thinking journal or scrap paper.
- The research reading that students complete for homework will help build both their vocabulary and knowledge pertaining to animals and specifically animal defenses. By participating in this volume of reading over a span of time, students will develop a wide base of knowledge about the world and the words that help describe and make sense of it.
- Students who finish quickly could write their own research questions about their expert group animal.
- In this module, the habit of character focus is working to contribute to a better world. The characteristic they collect in this lesson is: taking care of and improving shared spaces when using computers for internet research. They are also reminded of the characteristic: use my strengths as they work with one another in expert groups.

How it builds on previous work:

- This two-lesson arc mirrors Lessons 11 and 12 in Unit 1; students use a research guide similar to the Close Reading Guide to work through their expert group's web page. Because they have experience with this process and the four expert groups use different web pages, the teacher will not be able to support students through this research as intensively as in Unit 1. It is expected that because they have had practice with this process already, students will be able to work more independently.

Areas where students may need additional support:

- Students may require additional support reading, determining, and recording the gist of their web pages. Students should have been grouped intentionally, so you may need to spend more time with particular groups.

Assessment guidance:

- Review students' gist charts and glossaries to ensure they understand that the gist is what the text is mostly about and to review the strategies they use to determine the meaning of unfamiliar words. Students should use a variety of strategies, rather than only one.

- Consider using the Reading: Foundational Skills Informal Assessment: Reading Fluency Checklist when students read their expert group's web page in Work Time C. See Module 1 Appendix.
- Consider using the Speaking and Listening Informal Assessment: Collaborative Discussion Checklist during students' small group discussions in Work Time C. See Module 1 Appendix.
- Consider using the Reading: Foundational Skills Informal Assessment: Phonics and Word Recognition Checklist (Grade 4) to informally assess students during the research reading share in Closing and Assessment A. See Module 1 Appendix.

Down the road:

- In the next lesson, students will dig deeper into their web pages by answering the questions in their Expert Group Animal research notebook.

In advance:

- Prepare the technology to display the millipede web page and expert animal group web pages.
- Prepare the Choosing and Using Reliable Internet Sources anchor chart (see supporting materials).
- Prepare a research reading share using with the Independent Reading: Sample Plan document, or using your own independent reading routine.

Technology & Multimedia

- Work Times A and C: Students are working in groups to read web pages for the gist and unfamiliar vocabulary, but they should have access to either their own technology to review the web page or at least one technology per two students.
- Work Time B: Students will all need to be able to clearly read the text on the displayed millipede web page.
- Work Time C: Invite students to review the following videos from the Poster Walk activity in Lesson 1 for each of their expert group animals before reading their web page text in order to build a basic understanding:
 - Three-banded armadillo: <https://youtu.be/Ik1xfSDmfxc> ('Part 1: Three-Banded Armadillo Keeper Chat at the Houston Zoo.' Video. Houston Zoo. YouTube. 3 March, 2009. Web. 9 Apr, 2015)
 - Ostrich: <http://www.arkive.org/ostrich/struthio-camelus/video-00.html> ('Ostrich.' Video. Wildscreen Arkive. Web. 9 Apr, 2015)
 - Springbok: <http://www.arkive.org/springbok/antidorcas-marsupialis/video-00.html> ('Springbok.' Video. Wildscreen Arkive. Web. 9 Apr, 2015)
 - Monarch butterfly: <http://www.arkive.org/monarch-butterfly/danaus-plexippus/video-00.html> ('Monarch Butterfly.' Video. Wildscreen Arkive. Web. 9 Apr, 2015)
- Work Times B and C: For students who will benefit from hearing the text read aloud multiple times in order to find the gist, consider using a text-to-speech tool such as SpeakIt! (<https://chrome.google.com/webstore/detail/chrome-speak/diagnfimeecdcecjpnkjbnlelkclcpj>)

- Work Times B and C: Consider inviting students to use <https://mercury.postlight.com/reader/> to view the web page text without clutter.
- Work Times B and C: Consider inviting students to use a web page annotation tool—for example, <https://www.diigo.com> highlighting unfamiliar vocabulary words and adding gist annotations to a web page. Model this in Work Time B and invite students to use the tool for their own work in Work Time C.
 - Consider that YouTube, social media video sites, and other website links may incorporate inappropriate content via comment banks and ads. Although some lessons include these links as the most efficient means to view content in preparation for the lesson, be sure to preview links and/or use a filter service, such as <http://www.safeshare.tv>, for viewing these links in the classroom.

Supporting English Language Learners

Supports guided in part by CA ELD Standards 4.I.B.6

Important points in the lesson itself

- The basic design of this lesson supports ELLs with opportunities to determine the gist, which is fundamental to reading. In this lesson, this task may entail summarizing the animal's appearance, habitat, and diet.
- ELLs may find it challenging to differentiate between main ideas and details, and they may struggle with the language used to express gist. See suggested supports in this lesson, which can be used on an ongoing basis.

Levels of support

For lighter support:

- Invite students to find visuals of the millipede and create sentence frames that will help students who need heavier support to describe the visuals. Examples:
“It’s a ____ (millipede). It’s found ____ (under rocks) (around the world). It ____ (curls up/rolls into a ball) to escape predators.”
- Point to pictures of the expert group animals. Ask students to jot notes about one thing they learned about their animal. Then they should use different words (synonyms, varying language structure) to tell a partner what they learned. Model: “The ostrich is found in the savannahs of Africa.” > “Ostriches live in African savannahs.”

For heavier support:

- ELLs may have little to no experience using the internet for research, which is an important part of this lesson. See the suggestions for additional support in the lesson.
- Revisit determining the gist using supports suggested in this lesson.

Universal Design for Learning

- **Multiple Means of Representation (MMR):** In order to facilitate effective learning during this lesson, ensure that all students have access to the directions in 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, or creating an outline of the steps for each activity.
- **Multiple Means of Representation (MMR):** In this lesson, students use a web page for research. Some students may need support in incorporating the most valuable information from the web page into existing knowledge. Providing explicit cues or prompts support students in attending to the features that matter most as they read, highlighting the conventions of nonfiction text.
- **Multiple Means of Engagement (MME):** Invite students to link their work back to the learning targets by explicitly highlighting the utility and relevance of each activity back to the learning targets. For example, provide an index card with the unpacked learning target for students to reference as they read information on the web page. Include opportunities to refocus students' attention to the learning target throughout the lesson, and invite students to respond to how their research is supporting their instructional goal.

Vocabulary

Key:

(L): Lesson-Specific Vocabulary

(T): Text-Specific Vocabulary

(W): Vocabulary used in writing

- reliable, gist, publisher, author, bias, accuracy, timeliness, taking care of shared spaces (L)
- invertebrate, decaying, segments (T)

Materials

- ✓ Expert Group Norms (generated by each group in Lesson 1)
- ✓ Working to Contribute to a Better World anchor chart (from Unit 1, Lesson 1; teacher-created and added to in Work Time C; see supporting materials)
- ✓ Vocabulary log (begun in Module 1; one per student)
- ✓ Close Readers Do These Things anchor chart (begun in Module 1, Unit 1, Lesson 3)
- ✓ Researchers Do These Things anchor chart (begun in Unit 1, Lesson 2)
- ✓ Choosing and Using Reliable Sources handout (one per student and one to display)
- ✓ Millipede web page (one for display; found by accessing the link at the top of Millipede: Reading for Gist and Unfamiliar Vocabulary)
- ✓ Millipede: Reading for Gist and Unfamiliar Vocabulary (one for display)
- ✓ Millipede: Gist chart (one for display)
- ✓ Millipede: Vocabulary Log (one for display)
- ✓ Academic Word Wall (begun in Module 1)

- ✓ Domain-Specific Word Wall (begun in Unit 1, Lesson 2)
- ✓ Expert Group Animal research notebooks (distributed in Lesson 1; one per student)
 - Reading for Gist and Unfamiliar Vocabulary (page 10)
 - Gist chart (page 11)
- ✓ Working to Contribute to a Better World anchor chart (example, for teacher reference)
- ✓ Working to Become Ethical People anchor chart (from Module 1)
- ✓ Independent Reading: Sample Plan (see Module 1 Appendix; for teacher reference)

Opening

A. Reviewing Learning Targets (5 minutes)

- Invite students to sit with their expert groups and to spend a few minutes reading through the **Expert Group Norms** they generated in Lesson 1.
- Focus students on the **Working to Contribute to a Better World anchor chart**, specifically use my strengths. Remind students that as they work with their expert groups, they should use their strengths to help their group work through today's tasks.
- Direct students' attention to the learning targets and read them aloud:

"I can explain how to determine if an internet source is reliable."

"I can find the gist and determine the meaning of unfamiliar vocabulary of my expert group animal web page."
- Invite them to turn and talk. Ask:

"What word do you hear in reliable? What does reliable mean?" (I hear rely in that word; it means to depend or trust.)
- Explain to students that the suffix *-able* means "able to" or "can do." Ask:

"So if rely means to trust or depend, and able means able to, what might reliable mean?" (It means you are able to depend on it or trust it.)
- Record *reliable* on the Academic Word Wall and invite students to record in their **vocabulary log**.
- Ask students to discuss with their group and select volunteers to share their responses with the whole group:

"What is the gist? Why do we find the gist of new texts?" (The gist is what the text is mostly about. We find the gist first so that we can get an idea of what the text is mostly about and also to begin to understand the structure of the text—what is discussed where.)
- If productive, use a Goal 3 Conversation Cue to encourage students to think about their thinking. Ask students to discuss with their group and cold call students to share their responses with the whole group:

"What strategies can help you find the meaning of unfamiliar vocabulary? What did you learn in Unit 1? I'll give you time to think and discuss with a partner." (They can use context, use common affixes and roots, or look in a dictionary.)
- Focus students' attention on the vocabulary strategies on the **Close Readers Do These Things anchor chart** and review the criteria.

Meeting Students' Needs

- For students who may need additional support with vocabulary: Provide students with a short "cheat sheet" of common prefixes and suffixes that they can refer to during discussions about affixes and root words. (MMR)
- For students who may need additional support with comprehension: Provide students with a list of questions that will be asked when reviewing learning targets to allow them to consider answers ahead of time. (MMR, MME)
- For ELLs: Paraphrase the first learning target: "I can tell you how to decide whether internet information is reliable (information I can trust)."
- For ELLs: Spell *gist* and *reliable* aloud. Say: "The words *reliable* and *source* are often used together as a phrase and can be learned as a phrase, e.g., 'Is this a reliable source?'"

"The word gist is often used with the word find as a phrase and can be learned as part of a phrase, e.g., 'First, read to find the gist of the text.'"

- For ELLs: Say: "Affixes are small pieces added on to the beginning or end of a basic, or root, word. When the piece is added to the beginning, it's called a prefix. When it's added to the end, it's called a suffix. Today, we talked about the suffix for *reliable*. Do you remember what that suffix was and what it means? (*able*, can do) All affixes have a different meaning. Knowing the meaning of an affix can help you understand the meaning of the whole word."

Work Time

A. Introducing Criteria for Reliable Internet Sources (15 minutes)

- Explain that to this point, students have used informational articles and books to research animal defense mechanisms and that good researchers use numerous types of sources to search for information, including the internet. Tell students that in the next few lessons, they will apply what they know about reading informational texts to researching using online sources. Ask:

"What is the internet?" (It connects computers all over the world.)

- Explain that people use the internet to find information and that it is like a giant library. Ask:

"What kind of sources can you find on the internet?" (Websites, electronic versions of reference books, newspapers, blogs, videos; students may also mention popular social media sites.)

- If productive, cue students to expand the conversation by giving an example:

"Can you give an example?" (Responses will vary.)

- Tell students that because so many people have access to the internet and can post things online easily, there is a lot of information there that isn't factual, so it is important to find reliable sources.
- Display the **Researchers Do These Things anchor chart** and point out the criterion about choosing and using reliable sources and select a volunteer to read it aloud for the whole group.
- Display and distribute the **Choosing and Using Reliable Sources handout**.
- Discuss the meaning of each of these terms.

- Select students to read each of the bulleted points on the handout aloud for the whole group. Answer any clarifying questions.
- Tell students that the web pages they use in this lesson have been chosen for them and are all reliable based on these criteria.
- Display and model navigating the **millipede web page**, using the link at the top of page 2 of the millipede research notebook. Model these techniques:
 - Using section headings to skim and scroll for information
 - Explaining how pictures and videos are integrated into a web page
 - Clicking on links such as “invertebrates” (which leads to a glossary) and “centipedes” (which leads to a page with more information about centipedes)
 - Scrolling over the words linked in the Millipede Facts box, noticing that the definition of these words appears
- Give expert groups 5 minutes to navigate their own web page.

Meeting Students' Needs

- For students who may need additional support with engagement: Consider giving a dysfluent reader the opportunity to practice a bullet point in advance as extra fluency work and as a confidence booster. (MME)
- For students who may need additional support with comprehension: Write the terms *publisher*, *author*, *bias*, *accuracy*, and *timeliness* on a sheet of paper and invite students to draw a quick sketch that “captures” each term during the discussion to help them solidify their understanding of the terms. Students can use these sketches as a self-created reference for future work with internet research. (MMR)
- For ELLs: As some students may have little to no experience with the internet, check their knowledge of the concept by showing them the classroom computer and the cable or modem connecting the classroom computer to the system or group of millions of other computers throughout the world (the internet). On the classroom computer, show them a few web pages that you access through this system of other computers in the United States, Central and South America, Asia, and all over the world (the internet).
- For ELLs: Show students who need heavier support examples of the internet domains that are often considered reliable sources: .gov, .edu, .org.
- For ELLs: Allow students to explore spelling aloud, synonyms, collocations (words frequently used together), word clusters, and word maps (e.g., Frayer model) to increase understanding of the terms. Examples: *author*; *writer*; *creator*; *famous author*; *well-known author*; *successful author*; *anonymous author*; *Who is the author?*; *It was written by an anonymous author*.

Work Time

B. Guided Practice: Reading for Gist and Identifying Unfamiliar Vocabulary (10 minutes)

- Point out the **Close Readers Do These Things anchor chart** and tell students that they will be doing all these things to closely read their expert group web page.

- Display the directions on **Millipede: Reading for Gist and Unfamiliar Vocabulary**. Cold call students to read the directions aloud for the whole group while the rest of the students read along silently in their heads. Point out how these directions are based on the Close Readers Do These Things anchor chart.
- Display the millipede web page. Read the paragraph aloud for the whole group and invite students to read along silently in their heads.
- As a group, follow the directions to find the gist and unfamiliar vocabulary words in the first paragraph.
- Ask students to discuss with an elbow partner, and then ask volunteers to share:
“What is the gist of this paragraph? What is it mostly about?” (It is about the size of the millipede and where it is found.)
- Display the **Millipede: Gist chart** and model recording the gist.
- Ask:
“What unfamiliar vocabulary did you find in this paragraph?” (words such as invertebrate, decaying, and segments)
- Model recording words on the displayed **Millipede: Vocabulary Log**.
- Ask students to refer to the Determining the Meaning of Unfamiliar Vocabulary anchor chart and ask:
“Which of these strategies might work with these words?” (For these words, the dictionary might be the best strategy.)
- Select students to look up each word in either an online or printed dictionary.
- Model recording the meaning and the strategy used for each word on the Millipede: Vocabulary Log and add any new words to the **academic** and **domain-specific word walls**. Invite students to add translations in native languages.
- Explain that now students are going to do the same for their animal using their expert group animal web page and their vocabulary log.

Meeting Students' Needs

- For students who may need additional support with comprehension: Provide students who may need additional support with reading a print copy of the millipede web page and highlight or underline where to find the gist. They can also use this print copy to circle unfamiliar words as the class looks at the displayed web page. (MMR)
- For students who may need additional support with strategy development: Provide a copy of the Millipede Glossary on page 4 with important words written in advance: *invertebrate*, *decaying*, and *segments*. Consider filling in the Strategy column as well so they can focus on the meanings of the words. (MMAE)
- For ELLs: Mini Language Dive. Highlight language structures that are critical to understanding the gist of the millipede text. Example: “medium to large sized invertebrate,” “is found,” “is an omnivorous animal,” and “curls up into a spiral.” Work on comprehension of these phrases—for example, by eliciting paraphrases of these structures.

- For ELLs: To help determine the gist, display a T-chart. Label the left column "Main Ideas" and the right column "Details." Have students complete the chart based on the information on the web page and then use the main ideas to formulate the gist.
- For ELLs: To assist with finding the gist, ask students to tell a partner what the gist is in 1 minute, using a sentence frame such as: "This text is mostly about...." The partner can say whether or not there were too many details and which ones can be removed. Then ask students to tell their partner what the gist is again, this time in 30 seconds or less. Repeat, allotting shorter time increments, until the students have a brief gist statement free of specific details.

Work Time

C. Expert Group Work: Reading for Gist and Identifying Unfamiliar Vocabulary (25 minutes)

- Invite students to refer to their **Expert Group Animal research notebooks** to follow the **Reading for Gist and Unfamiliar Vocabulary** directions on page 10 and complete the **gist chart** on page 11. Remind students to use their vocabulary logs to record unfamiliar vocabulary.
- Remind students to refer to the Determining the Meaning of Unfamiliar Vocabulary anchor chart.
- Focus students on the Working to Contribute to a Better World anchor chart.
- Read aloud the habit of character recorded.
- Invite students to tell an elbow partner what *taking care of shared spaces* means in their own words using the anchor chart as a guide.
- Invite students to discuss with an elbow partner and cold call students to share their responses with the whole group:
"What does taking care of shared spaces look like? What might you see when someone is taking care of shared spaces?" (see Working to Contribute to a Better World anchor chart (example, for teacher reference)).
- "What does taking care of shared spaces sound like? What might you hear when someone is taking care of shared spaces?" (see Working to Contribute to a Better World anchor chart (example, for teacher reference)).
- Record student responses in the appropriate column on the Working to Contribute to a Better World anchor chart.
- Record taking care of shared spaces on the academic word wall. Invite students to add translations of the words in their home languages in a different color next to the target vocabulary.
- Once again, remind students of the habit of character of focus: taking care of shared spaces. Tell students they will need to take care of the shared computers they will use to access their expert group's websites.
- Invite students to work with their expert animal groups to find the gist and the meaning of unfamiliar vocabulary.
- Circulate to support students in reading their web pages.

- Focus students on the learning targets. Read each one aloud, pausing after each to use a checking for understanding protocol for students to reflect on their comfort level with or show how close they are to meeting each target. Make note of students who may need additional support with each of the learning targets moving forward.
- Repeat, inviting students to self-assess against how well they worked to contribute to a better world in this lesson.

Meeting Students' Needs

- For students who may need additional support with comprehension: Fill in the headings for the Organizing Research note-catcher so that they know what they are looking for on their expert group animal web page. Assign them one column that coordinates with the portion of the text. (MMR, MMAE)
- For ELLs and students who may need additional support: Use a Jigsaw protocol. Allow these students to be responsible for different, small portions of their expert group animal text and then report back to the larger group about what they learned.
- For ELLs: Mini Language Dive. Highlight language structures that are critical to understanding the gist of the expert group animal text. Work on comprehension of these phrases—for example, by asking questions about what these phrases mean.
- For ELLs and students who may need additional support: Provide sentence frames so they can express the gist to other group members and the class: "This text is mostly about the appearance, habitat, and diet of the ____ (ostrich). It looks like a ____ (bird) and has ____ (two) legs, and ____ (a long neck, and feathers like other birds). The ____ (ostrich) is found in ____ (the African savannahs). It (is)/is not an omnivorous animal. It lives on ____ (roots and insects)."
- For ELLs: Consider providing students who need heavier support with simpler sentence frames to express the gist. Examples:
 - "This reading is mostly about how the ____ (ostrich) looks, where it lives, and what it eats."
 - "The ____ (ostrich) looks like a ____ (bird). It has ____ (two) legs. It has ____ (a long neck and feathers like other birds)."
 - "It lives in ____ (the African savannahs). It (is)/is not an omnivorous animal. It eats ____ (roots and insects)."

Closing and Assessment

A. Research Reading Share (5 minutes)

- Focus students on the **Working to Become Ethical People anchor chart**. Remind students of: I behave with integrity. This means I am honest and do the right thing, even when it's difficult, because it is the right thing to do.
- Remind them that this includes doing homework even when there may be other things they want to do after school. Remind them that the purpose of research reading is to build background knowledge and vocabulary on a topic so that they can gradually read more and more complex texts on that topic.

- Refer to the **Independent Reading: Sample Plan** to guide students through a research reading review, or use your own routine.

Meeting Students' Needs

- For students who may need additional support with auditory processing: As students are talking, write important words that you hear on the board as a cue for other pairs. For instance: "I learned that the springbok gazelle's predators are lions"—write the word *predator* on the board as a reminder of what other pairs could be discussing. (MMR)
- For ELLs: Notice any common language errors and write one on the board. Afterward, ask if anyone can correct the error in class or for homework.

Homework

Accountable Research Reading. Select a prompt and respond in the front of your independent reading journal.

Meeting Students' Needs

- For students who may need additional support with written expression: Provide sentence frames for their responses or allow them to share their learning in other ways, such as drawing or discussing what they've learned with their family, a partner, or the teacher. (MMAE)
- For ELLs and students who may need additional support with reading and writing: Refer to the suggested homework support in Lesson 1. (MMAE, MMR)