



EXPEDITIONARY
LEARNING

Grade 5: Module 2A: Unit 3: Lesson 4

Taking Notes and Citing Quotes from Text: Gathering Information on our Rainforest Insects



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

- I can use quotes to explain the meaning of informational texts. (RI.5.1)
- I can determine the main idea(s) of an informational text based on key details. (RI.5.2)
- I can use a variety of sources to develop an understanding of a topic. (RI.5.9)
- I can document what I learn about a topic by taking notes. (W.5.8)

Supporting Learning Targets

- I can record quotes from a text about entomology in my notes.
- I can paraphrase a text about entomology.
- I can take notes on a text using a Category/Facts/Questions/Response (C/F/Q/R) Note-catcher.

Ongoing Assessment

- Field journals
- C/F/Q/R Note-catcher



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Agenda	Teaching Notes
<p>1. Opening</p> <p>A. Introducing the Performance Task (5 minutes)</p> <p>2. Work Time</p> <p>A. Vocabulary and Paraphrasing Practice (20 minutes)</p> <p>B. Guided Practice: Paraphrasing and Note-Taking (15 minutes)</p> <p>C. Group Work: Paraphrasing and Note-Taking (15 minutes)</p> <p>3. Closing and Assessment</p> <p>A. Debrief (5 minutes)</p> <p>4. Homework</p>	<ul style="list-style-type: none">• This lesson launches students' research about insects in the rainforest (specifically ants and butterflies). Build up the excitement!• Note that throughout this unit, students work in expert groups. Each group only receives the text(s) that their group reads. Prepare texts in advance to distribute to groups.• Review the Category/Facts/Questions/Response Note-catcher. Notice that the CATEGORY part of this Note-catcher is left blank until Lesson 5.• Students are given a question to focus their research: "What is the contribution of [the insect that I am researching] to the rainforest ecosystem?" This question is revealed during Part C of Work Time. Post it in a prominent place in the classroom so students can see it throughout the unit.• This lesson sequence includes several important transitions. Review carefully in advance to visualize when materials are used in the sequence of activities.• In advance: Cut the text to be paraphrased into strips (see supporting materials). Have the right number of strips. Two pairs of students need to receive strips with the same section of text. You will need additional copies of strips 1–4 for Work Time, Part C (since students who worked with strips 5–8 earlier in the lesson will need new strips for this activity). See lesson for details.* Prepare new anchor charts: Quotations and Paraphrases, Ant Research.



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Lesson Vocabulary	Materials
<p>quote, paraphrase, synonyms, entomologist, contribution, ecosystem</p> <p>Strip 1: dominate, seldom Strip 2: domination, strikingly Strip 3: societies, colonies, evolved, efficiently Strip 4: effectively, specialized, physical Strip 5: species, microhabitat, parasites, herbivores, decomposers Strip 6: arthropods, exoskeleton, molting Strip 7: thorax, abdomen, fused, immature Strip 8: antennae, immatures, thorax</p>	<ul style="list-style-type: none">• Paraphrasing and Quotation anchor chart (new; teacher-created; see supporting materials)• Information strips for paraphrasing practice (cut into strips)• Ant Research anchor chart (new; teacher-created; see Work Time B)• Category/Facts/Questions/Response (C/F/Q/R) Note-catcher (one to display)• “Fire Ants” text (one per student)



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Opening	Meeting Students' Needs
<p>A. Introducing the Performance Task (5 minutes)</p> <ul style="list-style-type: none">• Explain that although they will not have time to share their homework entries, you will read them once a week to make sure they have completed the assignment, and will write a comment on each student's journal.• Tell students that today the class will be starting to research insects of the rainforest. They will get lots of practice writing interesting and informative rainforest scientist field journals about the insects they are studying. This will be for their own field journal page that they will be creating.• Remind them of the work they did yesterday. The journal entry they wrote together from Meg Lowman's point of view was enriched when they added information from the text. When they write their own field journals, they will be able to use information they learned from <i>The Most Beautiful Roof in the World</i>, as well as from the more specialized research they are about to begin.	<ul style="list-style-type: none">• For students needing additional support producing language, consider offering a sentence frame, sentence starter, or a cloze sentence to assist with language production and provide the structure required. (e.g., "Last night I _____. You _____ last night.")



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Work Time	Meeting Students' Needs
<p>A. Vocabulary and Paraphrasing Practice (20 minutes)</p> <ul style="list-style-type: none">• Read the learning targets aloud. Explain that as they take notes today, they will focus on the difference between <i>quoting</i> directly from the text and <i>paraphrasing</i> an author's words.• In order to pre-assess to see if students know the difference between quotations and paraphrasing, ask a volunteer to tell the class, in a few sentences, what they did last night. As the student speaks, use a document projector or chart paper to record what she or he says, putting quotation marks around the student's words. Explain that this is a direct quote and point out the quotation marks. Ask another student to repeat what the first student said in his/her own words. Write the second student's paraphrase underneath the quote. Explain that this is a paraphrase: putting something in your own short, clear words.• Have the students practice this activity with a partner:<ul style="list-style-type: none">* One student describes their evening in a few sentences.* Partner paraphrases: puts it in his/her own words.* Then they switch roles and do it again.• Bring the group back together. Summarize the learning by creating a two-column Paraphrasing and Quotation anchor chart with the right-hand column titled QUOTATIONS and the left-hand column PARAPHRASES. Ask students to copy the chart into the next page in their journal. Elicit the following takeaways, recording these ideas in two columns:<ul style="list-style-type: none">* Quotations record exactly what the original speaker or writer said.* Quotations are surrounded by quotation marks.* Paraphrased statements are someone else's ideas (spoken or written) in your own words.* Paraphrased statements include synonyms for the original words.* Paraphrased statements are usually shorter than the original statements (they summarize the original statement).	<ul style="list-style-type: none">• Partner ELLs with native speakers of English to practice paraphrasing. ELL language acquisition is facilitated by interacting with native speakers of English who provide models of language.• Consider providing smaller quotes (sometimes just a few words) for some students. Teachers should check in on students' thinking as they write or speak about their text.



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Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Tell students they will get to keep practicing using quotations and paraphrasing as they learn more about insects. Explain to the students that they are going to become <i>entomologists</i>. Ask if anyone can infer the meaning of the word. Elicit or provide the definition that an entomologist is someone who studies insects. Share that the suffix <i>-ologist</i> means “someone who studies” and <i>ento-</i> is a prefix signifying “insects” (not to be confused with etymologist—someone who studies words—which is also what they are becoming!). Have students record the word and definition of <i>entomologist</i> in their Scientific Word Glossary (which they started in Unit 1) in the back of their journal.• Pair students up. Give each pair one information strip for paraphrasing practice. (Be sure to give the same strip to two pairs). Give students approximately 5 minutes to read the quotes, and to work together to write a paraphrase of the quote on the back of the strip. Circulate to ensure that they are coming up with accurate paraphrases. If necessary, model after students have given it a try on their own.• Next, ask students to talk with their partners about the meaning of the key words in the original statement, and how those words helped them understand and paraphrase the quote. Instruct them to add these words and their definitions to their glossaries.• Give students about 5 minutes to work with their partners. Continue to circulate among the class to ensure that they are collaborating well and identifying accurate definitions.• Ask the pairs to find another pair that had the same quote. Invite the students to compare the two paraphrases, looking for similarities and differences between their versions.• Ask students to talk with their group of four:<ul style="list-style-type: none">* “What are you learning about paraphrasing?”• Ask one or two volunteers to share their thinking.	<ul style="list-style-type: none">• While circulating, consider modeling for ELLs or students who need more support. In general, the suggestion is to model after students try on their own, but some students may need more scaffolding or support to engage with the paraphrasing task.



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Work Time (continued)	Meeting Students' Needs
<p>B. Guided Practice: Paraphrasing and Note-Taking (15 minutes) <i>Note: This segment of the lesson involves use of two different anchor charts. Be clear in advance on the progression, and have both charts on hand.</i></p> <ul style="list-style-type: none"> • Tell students that researchers often have big questions that help them focus their learning. Have students turn and talk to a partner about some of the big questions Meg Lowman has about the rainforest. Listen for: “What happens to the plants in the rainforest when insects don’t eat the leaves?” or “How are the insects and plants in the rainforest dependent on each other?” • Launch students’ research with excitement. Tell them that the focusing question for their research will be: “What is the contribution of [the insect that I am researching] to the rainforest ecosystem?” Write this question in a prominent place that students will be able to see daily. • Say: “Half the class will become experts on ants, and the other half on butterflies and moths. Then, when we share what we have learned, we will all know more about important aspects of the rainforest ecosystem. Today we will all be practicing together, gathering information about ants.” • Post and draw students’ attention to the Ant Research anchor chart. Under the heading, add the question: “What is the contribution of ants to the rainforest ecosystem?” • Review key vocabulary words in this question. First, ask students what they know about the general academic word <i>contribution</i>. Listen for students to notice <i>contribute</i>, which they likely already know. Look for a definition that includes the concept of being one part of a whole system with many pieces that work together to create a common good. Point out that the word is from the same root as <i>tributaries</i>, which are little streams that come together with a bunch of other streams to form a bigger river. The prefix <i>con</i> means <i>together</i> or <i>with</i>. You may also introduce the word <i>role</i> as a simpler synonym for <i>contribution</i>. • Review the meaning of the scientific word <i>ecosystem</i>. Ensure that students understand that an ecosystem is a community of living things that interact with each other. Ask: “Why do you think that the word is made up of the stem <i>eco</i> (a prefix meaning environment), and the word <i>system</i>?” Then ask how the idea of an ecosystem connects to the idea of biodiversity. Refer to the anchor chart on biodiversity created in Unit 2. Listen for answers from students that name the way living things that exist in a biodiverse environment interact to create an ecosystem. 	<ul style="list-style-type: none"> • Use vocabulary learning strategies, such as word parts studies, to support all learners: prefixes, root words, suffixes, cognates, and context. • Students needing additional support may benefit from partially filled-in C/F/Q/R Note-catchers. • When possible, provide text or materials for research found in students’ L1. This can help students understand materials presented in English.



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Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"> • Display the four-column Category/Facts/Questions/Responses (C/F/Q/R) Note-catcher. Explain to students that they will be watching and helping fill out the class Note-catcher first and that they will be completing their own later. Explain that they will begin with the FACTS column and return to the CATEGORY column in Lesson 5. • Display and distribute the “Fire Ants” text and ask students to focus on the text and follow along as it is read. Read this section aloud. • Ask students what facts they have learned from this passage. Listen for and guide students to answers such as: “Fire ants make themselves into rafts to escape from floods,” or “are able to survive underwater.” Record the answers in the FACTS Column of the C/F/Q/R Note-catcher you have drawn on the board. (For example, paraphrased statements could be: “Fire ants make themselves into rafts to escape from floods,” and “Fire ants can trap air on the hairs on their body so that they can breathe underwater.”) Remind students that sometimes we paraphrase the information to shorten it and to put it in our own words, and sometimes we record direct quotes with quotation marks. • Tell the class that conducting research always sparks more questions for the researcher. Ask students to share their questions with a partner. (Listen for and guide students to ask questions such as: “Why are they called fire ants?” and “How do they know what to do when there is a flood?” and “What do they do with the eggs?”) Record the questions in the QUESTIONS column of the Note-catcher. • Finally, explain that the RESPONSES column is for recording ideas and reactions to what they have read. Have students share with another partner any ideas the passage has sparked for them. Listen to conversations and record an answer such as: “This makes me think about what people need to do to prepare for floods.” Tell the class that this column is useful to record ideas that they will come back to when they write their rainforest field journals. 	<ul style="list-style-type: none"> •



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Work Time (continued)	Meeting Students' Needs
<p>C. Group Work: Paraphrasing and Note-Taking (15 minutes)</p> <ul style="list-style-type: none">• Ask the students to write the question: “What is the contribution of ants to the rainforest ecosystem?” and to draw a four-column C/F/Q/R Note-catcher on a new page in their journals under the question, copying the model you have projected. Explain that even though some students will be focusing their research on butterflies and moths starting in Lesson 6, today the whole class is learning about ants.• Tell the students that an important part of doing research is deciding whether what you have read is important to your topic. Say: “After you have read and understood a text, you have to decide if the information it contains is connected to the question you are trying to answer or not.”• Ask students to get into their groups of four, and then have them review the paraphrased statements they created earlier in the lesson.• * “Does your sentence strip have any information that might connect to our question: ‘How do ants contribute to the rainforest ecosystem?’” (Students should notice that the first four statement strips that were paraphrased do, and the second four do not.)• For groups who had strips 5–8, give them a new statement strip (any strip 1–4). Ask students to record a paraphrased fact from their statement strip in the FACTS column of their Note-catchers. Encourage them to record their QUESTIONS and RESPONSES.	<ul style="list-style-type: none">• Consider writing and breaking down multistep directions on how to take notes and paraphrase into numbered elements. Students can return to these guidelines to make sure they are on track.• Consider partnering an ELL with a student who speaks the same L1, for discussion of paraphrases. This can let students have more meaningful discussions and clarify points in their L1.



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Closing and Assessment	Meeting Students' Needs
<p>A. Debrief (5 minutes)</p> <ul style="list-style-type: none"> • Gather the class together as a group. Reread the learning targets aloud. Do a go-around in which each student shares a fact from her or his Note-catcher with the class and states whether it is a direct quote or a paraphrase. • Collect the journals and review the students' Note-catchers as an ongoing assessment. 	<ul style="list-style-type: none"> • Check in with students who struggle with language before asking them to share aloud in front of the class. Ensure they have a fact selected and know whether it is a quote or paraphrase. This allows all students to participate in a meaningful way.
Homework	Meeting Students' Needs
<ul style="list-style-type: none"> • Use your field journal to record notes from nature, either by going outside, looking out your window, or looking at a photograph in <i>The Most Beautiful Roof in the World</i>. You may want to return to the spot where you recorded your first homework notes, or choose a new focus for your observations. Be sure to put the date and time on your entry. <p><i>Note: In Lesson 6, students begin research on ants and butterflies of the rainforest. They may need additional resources on these arthropods. Begin collecting books for a classroom library for the research lessons. (See Recommended Texts)</i></p>	<ul style="list-style-type: none"> • Consider allowing students to just draw their observations, ideas, or notes in their journal entries when appropriate.



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Supporting Materials



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Paraphrasing and Quotations Anchor Chart
(Completed, for Teacher Reference)

Quotations	Paraphrases
<p>Record exactly what the original speaker or writer said.</p> <p>Don't add or take away anything from what the speaker or writer said.</p> <p>Are surrounded by quotation marks.</p>	<p>Restate someone else's ideas (spoken or written) in your own words.</p> <p>Include synonyms for the original words.</p> <p>Are usually shorter than the original statements (they summarize the original statement).</p>



Information Strips for Paraphrasing Practice

1. “Ants **dominate** the small-scale world. We may **seldom** notice them, but ants affect their ecosystems as much as humans do.” <http://www.mnh.si.edu/ants/index.html>
2. “Much like us, ants achieve **domination** by being social creatures. They must cooperate with each other to meet their basic needs for food, shelter, and defense. How they do this can look both **strikingly** familiar and bizarre.” <http://www.mnh.si.edu/ants/index.html>
3. “Group hunting, producing crops, and raising other animals for meals are some of the solutions that both human societies and large ant **colonies** have **evolved** to obtain a large amount of food **efficiently**.” <http://www.mnh.si.edu/ants/photogallery/index.htm>
4. “Members of larger societies have to work together to accomplish major tasks that no one person, or ant, could do alone. To contribute **effectively** in these groups, the individual members have limited, but **specialized**, skills. Among ants, the worker’s **physical** size and shape often determines her role in the colony.” <http://www.mnh.si.edu/ants/photogallery/index.htm>
5. “The insects are the most diverse and important group of animals on land. There are more **species** of insects than all other land animals put together. Insects live in all habitats and occupy any **microhabitat** you can imagine. They can be predators, prey, **parasites**, hosts, **herbivores**, or **decomposers**.” www.biokids.umich.edu/critters/Insecta/
6. “Insects are members of a larger group called **arthropods** (which also includes arachnids, myriapods, and crustaceans). All arthropods have a rigid exoskeleton, and legs that are jointed (arthropod means “jointed foot”). In order to grow, arthropods have to shed their whole **exoskeleton** all at once; this is called ‘**molting**.’” www.biokids.umich.edu/critters/Insecta/



Information Strips for Paraphrasing Practice

7. “All insects have bodies which are divided into three sections: the **head**, **thorax**, and **abdomen**. In some insects these sections are **fused** together so they may be hard to tell apart, and some baby insects (called immature) do not have all three sections until they become adults.” www.biokids.umich.edu/critters/Insecta/

8. “Nearly all insects have a pair of **antennae** on their heads. They use their antennae to touch and smell the world around them. Adult insects (and most **immatures**) have six legs that are attached to the middle section of the body, the **thorax**. Insects are the only arthropods that have wings, and the wings are always attached to the thorax, like the legs.” www.biokids.umich.edu/critters/Insecta/

Source: <http://www.mnh.si.edu/ants/index.html> and www.biokids.umich.edu/critters/Insecta/



Category-Facts-Questions-Response (C/F/Q/R) Note-Catcher

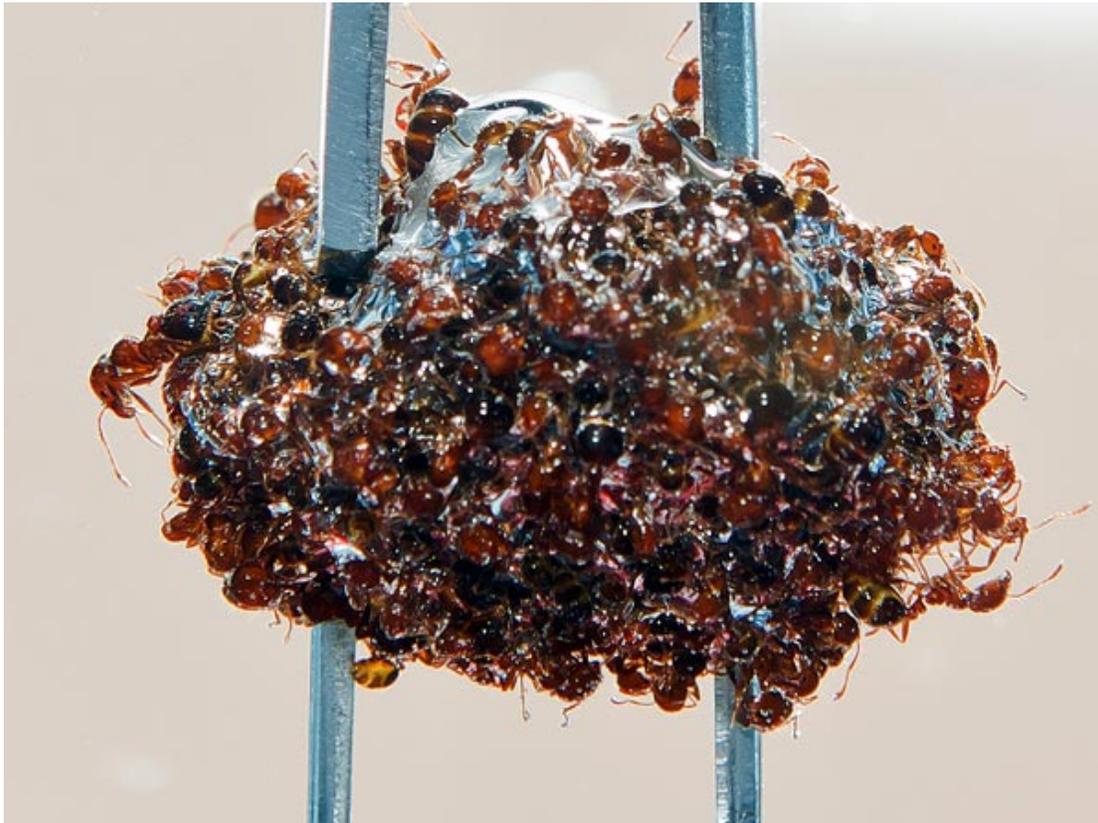
Category	Facts	Questions	Responses



Fire Ants

By Rachel Kaufman/National Geographic Stock

When a city floods, humans stack sandbags and raise levees. When a fire ant colony floods, the ants link up to form a literal life raft. Now, new research shows exactly how the ants manage this feat. Engineering professor David Hu and graduate student Nathan J. Mlot at Georgia Institute of Technology had heard reports of ant rafts in the wild that last for weeks. “They’ll gather up all the eggs in the colony and will make their way up through the underground network of tunnels, and when the flood waters rise above the ground, they’ll link up together in these massive rafts,” Mlot said. The scientists collected fire ants and dunked clumps of them in water to see what would happen. In less than two minutes the ants had linked ‘hands’ to form a floating structure that kept all the insects safe. Even the ants down below can survive this way, thanks to tiny hairs on the ants’ bodies that trap a thin layer of air. “Even when they’re on the bottom of the raft, they never technically become submerged,” Mlot said.



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