



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Overview



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Unit 2: Using Writing to Inform

In this second unit, students research their expert group animal and its defense mechanisms. Close reading of informational texts about their expert group animal will prepare students for the mid-unit assessment in which they make inferences and summarize information from two informational texts. In the second half of the unit, students will synthesize information from their research by writing an

informative piece about their expert group animal, in which their animals physical characteristics, habitat, predators, and defense mechanisms are described. This piece will become the introduction to their performance task, a Choose Your Own Adventure Narrative, written in unit 3. Their research in this unit will also serve as a resource for writing narratives with scientifically accurate details.

Guiding Questions And Big Ideas

- **How do animals' bodies and behaviors help them survive?**
- **How can a writer use knowledge from their research to inform and entertain?**
- *To protect themselves from predators, animals use different defense mechanisms.*
- *Writers use scientific knowledge and research to inform and entertain.*

Mid-Unit 2 Assessment

Reading and Researching the Defense Mechanisms of the Pufferfish

This assessment centers on standards NYS ELA CCLS RI.4.1, RI 4.2, W.4.7, W 4.8, and L.4.4 a and b. In this assessment, students will read two texts on the puffer fish. They will answer text-dependent multiple choice and short answer questions demonstrating their ability to infer, summarize, and document what they have learned about a topic by taking notes.

End of Unit 2 Assessment

Writing an Informative Piece Text About Pufferfish Defense Mechanisms

This assessment centers on NYSP12 ELA CCLS RI.4.9, W.4.2, W.4.4, W.4.7, and W.4.8. In this assessment, students will write about the pufferfish and its defense mechanisms. Students will reread two texts from Unit 1 and synthesize information to plan a short, informative piece of writing that answers the question: "How does the pufferfish's body and behavior help it survive?" In their writing, students must introduce the pufferfish and describe its defense mechanisms and use examples from both texts to support their description.



Content Connections

This module is designed to address English Language Arts standards as students read informational texts about animal defense mechanisms. However, the module intentionally incorporates Science Practices and Themes to support potential interdisciplinary connections to this compelling content. These intentional connections are described below.

Big ideas and guiding questions are informed by the New York State Common Core K-8 Science Framework:

- Next-Generation Science Standards 4L-S1-1
- From Molecules to Organisms: Structure and Processes

NYS Science Standard 4: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. Key Idea 2: Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring. Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life. Key Idea 6: Plants and animals depend on each other and their physical environment.

Texts

1. *Animal Behavior: Animal Defenses* by Christina Wilsdon. Chelsea House Pub (L); 1 edition (April 2009). ISBN: 160413089X.
2. *Venom* by Marilyn Singer (Darby Creek Publishing, October 1, 2007. ISBN: 1581960433. (Teacher copy only).
3. “Award-Winning Survival Skills” by Lea Winerman (Science Word 59.4 (2002).



This unit is approximately 2 weeks or 12 sessions of instruction.

Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 1	Setting Purpose for a Deeper Study of Animal Defense Mechanisms	<ul style="list-style-type: none"> I can accurately synthesize information from two texts on the same topic. (RI.4.9) 	<ul style="list-style-type: none"> I can synthesize information from my notes into a paragraph. 	<ul style="list-style-type: none"> Synthesis paragraph 	<ul style="list-style-type: none"> What Do Researchers Do? Anchor chart Performance Task anchor chart Guiding Questions anchor chart
Lesson 2	Reading Informational Texts: Launching the Research Process	<ul style="list-style-type: none"> I can explain what a text says using specific details from the text. (RI.4.1) I can make inferences using specific details from the text. (RI.4.1) I can use technology to collaborate with others to produce a piece of writing. (W.4.6) 	<ul style="list-style-type: none"> I can make inferences based on information from pictures and text from an online source. I can support my inferences with details and examples from pictures and text from an online source. I can find the meanings of unfamiliar words to help me better understand a text. 	<ul style="list-style-type: none"> Expert Group Animal Defense Mechanisms: KWL chart Expert Group Animal research guides 	<ul style="list-style-type: none"> Close Readers Do These Things anchor chart Performance Task anchor chart
Lesson 3	Reading Informational Texts: Reading Closely about Expert Group Animals on a Web Page	<ul style="list-style-type: none"> I can explain what a text says using specific details from the text. (RI.4.1) I can make inferences using specific details from the text. (RI.4.1) I can summarize informational or persuasive text. (RI.4.2) I can use technology to collaborate with others to produce a piece of writing. (W.4.6) 	<ul style="list-style-type: none"> I can make inferences based on information from pictures and text from an online source. I can support my inferences with details and examples from pictures and text from an online source. I can find the meanings of unfamiliar words to help me better understand a text. I can write a summary paragraph about my animal after closely reading a text. 	<ul style="list-style-type: none"> Web Page research guide Expert group text summary 	<ul style="list-style-type: none"> What Do Researchers Do? Anchor chart Close Readers Do These Things anchor chart Vocabulary Strategies anchor chart



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 4	Reading Informational Texts: Researching Expert Groups Animals	<ul style="list-style-type: none"> I can explain what a text says using specific details from the text. (RI.4.1) I can make inferences using specific details from the text. (RI.4.1) 	<ul style="list-style-type: none"> I can make inferences based on information from pictures and text. I can support my inferences with details and examples from pictures and texts. I can find the meanings of unfamiliar words to help me better understand a text. 	<ul style="list-style-type: none"> Expert Group Animal Defense Mechanisms: KWL chart Research note-catcher 	<ul style="list-style-type: none"> Performance Task Close Readers Do These Things anchor chart Jigsaw protocol
Lesson 5	Reading Informational Texts: Researching Expert Group Animals and Collecting Vocabulary	<ul style="list-style-type: none"> I can explain what a text says using specific details from the text. (RI.4.1) I can make inferences using specific details from the text. (RI.4.1) I can accurately synthesize information from two texts on the same topic. (RI.4.9) 	<ul style="list-style-type: none"> I can make inferences based on information from pictures and text. I can support my inferences with details and examples from pictures and texts. I can find the meanings of unfamiliar words to help me better understand a text. 	<ul style="list-style-type: none"> Research note-catcher Expert Group Animal Defense Mechanisms glossary 	<ul style="list-style-type: none"> Vocabulary Strategies anchor chart Close Readers Do These Things anchor chart
Lesson 6	Mid-Unit 2 Assessment: Reading and Research the Defense Mechanisms of the Pufferfish	<ul style="list-style-type: none"> I can explain what a text says using specific details from the text. (RI.4.1) I can make inferences using specific details from text. (RI.4.1) I can summarize informational or persuasive text. (RI.4.2) I can conduct a research project to become knowledgeable about a topic. (W.4.7) I can document what I learn about a topic by taking notes. (W.4.8) I can use a variety of strategies to determine the meaning of words and phrases. (L.4.4 a and b) 	<ul style="list-style-type: none"> I can make inferences based on information from a text. I can support my inferences with details and examples from a text. I can summarize a text using the main idea and supporting details found in the text. 	<ul style="list-style-type: none"> Mid-Unit 2 Assessment: Reading and Researching the Defense Mechanisms of the Pufferfish Tracking My Progress, Mid-Unit 2 recording form 	



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 7	Planning to Write an Informative Piece: Synthesizing Research on Expert Group Animals	<ul style="list-style-type: none"> I can accurately synthesize information from two texts on the same topic. (RI.4.9) I can produce writing that is appropriate to task, purpose, and audience. (W.4.4) I can group supporting facts together about a topic in an informative/explanatory text. (W.4.2a) I can sort my notes into categories. (W.4.8) 	<ul style="list-style-type: none"> I can identify characteristics of informative writing. I can synthesize information from my research notes onto a planning graphic organizer. I can group together facts from my research with related evidence in my informative piece. 	<ul style="list-style-type: none"> Informative Page Planning graphic organizer 	<ul style="list-style-type: none"> Performance Task anchor chart Guiding Questions anchor chart Informational Texts anchor chart
Lesson 8	Writing Informational texts: Crafting Introductions	<ul style="list-style-type: none"> I can introduce a topic clearly. (W.4.2a) 	<ul style="list-style-type: none"> I can write an introduction paragraph for my informative piece that describes my expert group animal, its habitat, and its predators. I can write a focus statement that answers the focus question and tells the topic of my writing. 	<ul style="list-style-type: none"> Draft of introduction paragraph 	<ul style="list-style-type: none"> Effective Introductions anchor chart
Lesson 9	Writing Informational Texts: Developing Body Paragraphs	<ul style="list-style-type: none"> I can develop the topic with facts, definitions, details, and quotations. (W.4.2b) I can construct a concluding statement or section of an informative/explanatory text. (W.4.2e) 	<ul style="list-style-type: none"> I can write body paragraphs for my informative piece that describe the defense mechanisms of my expert group animal. I can write a concluding statement for my informative piece that summarizes the defense mechanisms of my expert group animal. I can group together scientifically accurate facts with related evidence in my informative piece. 	<ul style="list-style-type: none"> Draft of body paragraphs 	<ul style="list-style-type: none"> Effective Body Paragraphs Developing Body Paragraphs anchor chart



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 10	Writing Informational Texts: Revising for Supporting Details and Word Choice	<ul style="list-style-type: none"> I can develop the topic with facts, definitions, details, and quotations. (W.4.2b) I can use precise, content-specific language/vocabulary to inform or explain about a topic. (W.4.2d) I can express ideas using carefully chosen words. (L.4.3a) I can accurately use fourth-grade academic vocabulary to express my ideas. (L.4.6) 	<ul style="list-style-type: none"> I can revise my writing for accurate facts with related evidence using my planning graphic organizer. I can use vocabulary from my research on animal defense mechanisms to write accurate descriptions in my informative piece. 	<ul style="list-style-type: none"> Revisions of informative piece 	<ul style="list-style-type: none"> Steps for Revising My Writing anchor chart Informational Texts anchor chart
Lesson 11	Writing Informational Texts: Editing for Conventions	<ul style="list-style-type: none"> With support from peers and adults, I can use the writing process to produce clear and coherent writing. (W.4.5) I can correctly use homophones (e.g., to, too, two; there, their). (L.4.1g) I can use correct capitalization in my writing. (L.4.2a) I can spell grade-appropriate words correctly. (L.4.2d) I can use resources to check and correct my spelling. (L.4.2d) 	<ul style="list-style-type: none"> I can check my peers' work for correct capitalization. I can check my peers' work for correct spelling. 	<ul style="list-style-type: none"> Edits of informative piece 	<ul style="list-style-type: none"> Spelling Convention anchor chart Capitalization Conventions anchor chart Whip-Around protocol



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 12	End of Unit 2 Assessment: Writing an Informative Text about Pufferfish Defense Mechanisms	<ul style="list-style-type: none">• I can accurately synthesize information from two texts on the same topic. (RI.4.9)• I can write informative/explanatory texts that convey ideas and information clearly. (W.4.2)• I can produce writing that is appropriate to task, purpose, and audience. (W.4.4)• I can conduct a research project to become knowledgeable about a topic. (W.4.7)• I can document what I learn about a topic by taking notes. (W.4.8)• I can sort my notes into categories. (W.4.8)	<ul style="list-style-type: none">• I can synthesize information from my research notes onto a planning graphic organizer.• I can group together facts from my research with related evidence in my informative piece.• I can plan and write a draft of an informative piece describing the pufferfish and its defense mechanisms.	<ul style="list-style-type: none">• End of Unit 2 Assessment• Tracking My Progress, End of Unit 2 recording form	<ul style="list-style-type: none">• Guiding Questions anchor chart



Optional: Experts, Fieldwork, And Service

Experts:

- Invite an expert from the local zoo to come in and speak to students about animal defense mechanisms.

Fieldwork:

- Visit the local zoo to observe your expert animal in action.

Service:

- Find out about organizations working to protect your expert group animal and its habitat – get involved in helping/promoting this organization.

Optional: Extensions

- Ask students to conduct additional research on their expert group animal with additional texts or websites. Expand the web research students engage in to include an open search and evaluation online resources. Teach students to evaluate the reliability of these resources.



Preparation and Materials

Animal Defenses Research Journal

In Lesson 1, students will use the Animal Defenses research journal (from Unit 1) to synthesize their research notes through writing a paragraph explaining how animals' bodies and behaviors help them survive. This journal is referenced again in Lesson 10 when students revise for word choice—they use the glossary to find additional words to include in their informative pieces.

Expert Group Animal Research Journal

In Lessons 2–11, students will use an Expert Group Animal research journal to record notes and observations about their expert group animal.

- Three-banded Armadillo
- Springbok Gazelle
- Mimic Octopus
- Monarch Butterfly (See the Module overview document for details related to research on butterflies across Grades 4 and 5).

Students use this journal Lessons 7 through 11 when students plan, write, revise, and edit their informational pieces of the final performance task. They also will refer to it throughout Unit 3, as they work on their narrative pieces of the final performance task.

In advance of this unit, consider preparing the Expert Group Animal research journal (in Lesson 2) as a copied and stapled packet. In addition, consider providing students with a research folder for use throughout the module. This will help students keep their materials (research journals, texts, writing) organized and in one place.

Each lesson contains a completed page of the Expert Group Animal research journal for teacher reference.

Web-based Research

In Lesson 2 and Lesson 3 students use web-based articles to conduct initial research on their expert group animal. For classes that do not have the technology necessary to support web-based reading, an alternative is provided: see the print articles included as an additional resource in Lessons 2 and 3.



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Grade 4: Module 2B: Unit 2:

Recommended Texts



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The list below includes texts with a range of Lexile® text measures about animal defenses. This provides appropriate independent reading for each student to help build content knowledge about the topic.

It is imperative that students read a high volume of texts at their reading level in order to continue to build the academic vocabulary and fluency demanded by the CCLS.

Note that districts and schools should consider their own community standards when reviewing this list. Some texts in particular units or modules address emotionally difficult content.

Common Core Band Level Text Difficulty Ranges:

(As provided in the NYSED Passage Selection Guidelines for Assessing CCSS ELA)

- Grades 2–3: 420–820L
- Grades 4–5: 740–1010L
- Grades 6–8: 925–1185L

Where possible, texts in languages other than English are also provided. Texts are categorized into three Lexile measures that correspond to Common Core Bands: below grade band, within band, and above band. Note, however, that Lexile® measures are just one indicator of text complexity, and teachers must use their professional judgment and consider qualitative factors as well. For more information, see Appendix 1 of the Common Core State Standards.

Title	Author and Illustrator	Text Type	Lexile Measure
Lexile measures below band level (under 740L)			
<i>Gazelles</i>	Megan Borgert-Spaniol (author)	Informational	275*
<i>It's a Baby Gazelle</i>	Kelly Doudna (author)	Informational	400*
<i>Armadillos</i>	Steve Potts (author)	Informational	580
<i>Deadly Blue-Ringed Octopuses</i>	Daisy Allyn (author)	Informational	720
<i>Gazelles</i>	Lynette Robbins (author)	Informational	710*
<i>Armadillos</i>	Sheila Griffin Llanas (author)	Informational	710

*Lexile based on a conversion from Accelerated Reading level.



Title	Author and Illustrator	Text Type	Lexile Measure
<i>National Geographic Great Migrations: Butterflies</i>	Laura Marsh (author)	Informational	710
<i>An Octopus Is Amazing</i>	Patricia Lauber (author)	Informational	730
Lexile measures within band level (740L–1010L)			
<i>Octopuses</i>	Deborah Coldiron (author)	Informational	740
<i>Sea Anemone</i>	Meryl Magby (author)	Informational	750*
<i>Migrating with the Monarch Butterfly</i>	Thessaly Catt (author)	Informational	830*
<i>Armadillo's Burrow</i>	Dee Phillips (author)	Informational	850
<i>The Australian Spotted Jellyfish</i>	Susan Heinrichs Gray (author)	Informational	850*
<i>Octopuses</i>	Sandra Markle (author)	Informational	920
<i>Giant Pacific Octopus: The World's Largest Octopus</i>	Leon Gray (author)	Informational	920
<i>Butterflies</i>	Seymour Simon (author)	Informational	925*
<i>Box Jellyfish: Killer Tentacles</i>	Natalie Lunis (author)	Informational	950
<i>Octopuses</i>	Anna Claybourne (author)	Informational	990
Lexile measures above band level (over 1010L)			
<i>DK Eyewitness Books: Fish</i>	Steve Parker (author)	Informational	1010*
<i>The Astonishing Armadillo</i>	Dee Stuart (author)	Informational	1170

*Lexile based on a conversion from Accelerated Reading level.

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Grade 4: Module 2B: Unit 2: Lesson 1

Setting Purpose for a Deeper Study of Animal Defense Mechanisms



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Long-Term Target Addressed (Based on NYSP12 ELA CCLS)	
I can accurately synthesize information from two texts on the same topic. (RI 4.9)	
Supporting Learning Target	Ongoing Assessment
<ul style="list-style-type: none">I can synthesize information from my notes into a paragraph.	<ul style="list-style-type: none">Synthesis paragraph



Setting Purpose for a Deeper Study of Animal Defense Mechanisms

Agenda	Teaching Notes
<ol style="list-style-type: none"> 1. Opening <ol style="list-style-type: none"> A. Engaging the Reader: Revisiting the Performance Task Prompt (15 minutes) B. Review Learning Target (5 minutes) 2. Work Time <ol style="list-style-type: none"> A. Guided Synthesis of Unit 1 Texts: Organizing Notes (15 minutes) B. Guided Synthesis of Unit 1 Texts: Writing a Synthesis Paragraph (15 minutes) 3. Closing and Assessment <ol style="list-style-type: none"> A. Reveal of Expert Group Animals (5 minutes) B. Review Homework (5 minutes) 4. Homework <ol style="list-style-type: none"> A. Begin reading your independent reading book for this unit. 	<ul style="list-style-type: none"> • This lesson serves as a bridge from Unit 1 to Unit 2, allowing students to reflect on and synthesize the content learned in Unit 1. They revisit the Performance Task and What Do Researchers Do? anchor charts to frame and give purpose to the lesson. • Because this is the first time synthesizing is formally taught in this module, a guided approach is used. During Work Time, the teacher models how to organize the research notes from the Animal Defenses research journal, using the Guiding Question Reflection graphic organizer. From here, he or she models how to take this information from the graphic organizer and organize it into a paragraph that answers the guiding question: “How do animals’ bodies and behaviors help them survive?” After watching the teacher complete this process, students are given time to complete it themselves. Synthesizing is revisited later in the unit in Lesson 7. • The Guiding Question Reflection graphic organizer is familiar to students; a similar structure was used in Unit 1 when examining diagrams in informational text. This benefits students because it is a familiar structure, but they are learning to use it in a new context. • Students’ exit tickets from Unit 1, Lesson 13 are returned, and they should be encouraged to use these in addition to their Animal Defenses research journal to write their paragraphs. Recall that the exit ticket asked them to answer the same question: “How do animals’ bodies and behaviors help them survive?” You may wish to have students compare their responses on the exit ticket to their final paragraph written in this lesson as a way to demonstrate their growth after learning to synthesize information. Also note that the Guiding Question Reflection graphic organizer is in students’ Animal Defenses research journal. • In the Closing of this lesson, students discover which animal they will research for the remainder of the module. Be sure to form the expert groups before the lesson, keeping in mind students’ rankings on the Unit 1, Lesson 13 exit slip. It should be noted that the animals chosen for expert groups were selected intentionally for scaffolding purposes. The gazelle was chosen for students who generally need extra support in reading and research tasks; the mimic octopus and the armadillo will be appropriate for most students at this grade level; and the monarch butterfly will work well for students who need a challenge. These distinctions were made according to text complexity in <i>Animal Behavior: Animal Defenses</i> and <i>Venom</i>.



Setting Purpose for a Deeper Study of Animal Defense Mechanisms

Agenda	Teaching Notes (continued)
	<ul style="list-style-type: none">• In advance:<ul style="list-style-type: none">– Assess Unit 1, Lesson 13 exit slips to be returned to students in Work Time A.– Create expert groups.• Post: Performance Task anchor chart, What Do Scientists Do? anchor chart, learning target.• Preview the Unit 2 Recommended Texts list and prepare books for students to browse and select at the close of this lesson. Students will use these books for independent reading and homework throughout this unit. Students should be given opportunities to read a variety of these texts related to the animal they will study throughout this unit. It is imperative that students have a volume of reading in order to build their knowledge and vocabulary. For more details, see the stand-alone document Foundational Reading and Language Skills: Grades 3-5 Resource Package. See in particular the document Independent Reading: The Importance of a Volume of Reading and Sample Plans.

Lesson Vocabulary	Materials
informational, synthesize	<ul style="list-style-type: none">• Performance Task anchor chart (begun in Unit 1, Lesson 1)• Equity sticks• What Do Researchers Do? anchor chart (begun in Unit 1, Lesson 2)• Animal Defenses research journals (begun in Unit 1, Lesson 1; one per student; one to display)• Guiding Question Reflection graphic organizer (one per student and one to display)• Document camera• Exit tickets (from Unit 1, Lesson 13; one per student)• Guiding Question Reflection graphic organizer (answers, for teacher reference)• Listening Closely note-catchers (page 2 and page 4 of Animal Defenses research journal)• <i>Venom</i> (book; one to display)• Guiding Questions anchor chart (begun in Unit 1, Lesson 1)



Opening	Meeting Students' Needs
<p>A. Engaging the Reader: Revisiting the Performance Task Prompt (15 minutes)</p> <ul style="list-style-type: none">• Congratulate students for wrapping up Unit 1. Tell them they now have a good foundation in what animal defense mechanisms are and how writers research topics they will write about.• Draw students' attention to the Performance Task anchor chart and reread the prompt. Remind them that they are working toward writing a narrative during this module. Point out the added bullet points below the performance task prompt. Review each of the bullet points with students. Explain that students may not understand each of these requirements, but that each of these components of their performance task will be a focus of class learning as they work towards writing their choose-your-own-adventure narrative.• Explain that before they can begin writing about the animal for their performance task, they will need to research to learn more about it.• Point to the second bullet point of the prompt ("an informational page ...") on the anchor chart. Tell students they will work on this part of the performance task in this unit.• Use equity sticks to call on a student to read the second bullet point of the prompt aloud:<ul style="list-style-type: none">* "An <i>informational</i> page with a physical description of your animal, its habitat, its defense mechanisms, and predators"• Ask:<ul style="list-style-type: none">* "Based on the anchor chart, what kind of information will we be looking for during our research?"• Listen for responses like, "We need to find information about what the animal looks like."• Tell students they will work in expert groups to research animals. Remind them that they ranked their animal choices in Unit 1, Lesson 13. Tell them they will find out their expert groups and animals later in the lesson.• Set the purpose for researching for the performance task by pointing out the What Do Researchers Do? anchor chart. Invite students to popcorn-read the bullet points on the chart.	<ul style="list-style-type: none">• The performance task provides motivation for student engagement in the topic and gives a purpose to the lesson.



Opening (continued)	Meeting Students' Needs
<ul style="list-style-type: none"> • Ask: <ul style="list-style-type: none"> * “What things did we do on this list when researching general animal defense mechanisms and the defense mechanisms of the millipede in Unit 1?” • Listen for responses such as: “We researched the question ‘How do animals’ bodies and behaviors help them survive?’” or “We researched by reading different informational texts about animal defense mechanisms and gathered notes in our research journals” or “We participated in Science Talks.” • Ask: <ul style="list-style-type: none"> * “How did engaging in these activities help us learn more about animal defense mechanisms?” • Listen for responses like: “When we researched, we were able to learn about different examples of defense mechanisms animals use” or “Science Talks helped us to talk about what we learned with others and helped us understand things that might have been confusing to us.” • Point out these bullet points: <ul style="list-style-type: none"> * “Analyze data and facts, and draw a conclusion.” * “Think about how new ideas or learning connect to what they already know.” • Explain that before they begin learning about a new animal, students will analyze their research notes in their Animal Defenses research journal to think about how their learning is connected and to <i>synthesize</i> the information they have learned to reflect on and answer the guiding question “How do animals’ bodies and behaviors help them to survive?” 	
<p>B. Review Learning Target (5 minutes)</p> <ul style="list-style-type: none"> • Direct students’ attention to the learning target. Invite them to silently read it to themselves: <ul style="list-style-type: none"> * “I can synthesize information from my notes into a paragraph.” • Ask if there are any words that they are unsure of or that confuse them. As students point out words, ask for clarification and annotate the learning target with clarifying words or synonyms. For example: <ul style="list-style-type: none"> * “Synthesize: to combine information from several sources and make a general statement about the key learning” • Reread the learning target using the clarifying words and check for understanding with students. 	<ul style="list-style-type: none"> • Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. Guided Synthesis of Unit 1 Texts: Organizing Notes (15 minutes)</p> <ul style="list-style-type: none">Remind students that before they begin learning about a new animal, they will analyze their research notes in their Animal Defenses research journal to think about how their learning is connected and to synthesize the information they have learned. Post this guiding question for the module:<ul style="list-style-type: none">* “How do animals’ bodies and behaviors help them survive?”Explain that a common mistake some people make when synthesizing is to summarize. When you summarize, you sum up the main points in one text, but when you synthesize, you combine information from more than one source to make a statement about key learning.Tell students that before they can respond to the guiding question, they must first look through their notes to gather and organize information.Distribute the Guiding Question Reflection graphic organizer and use a document camera to display a copy. Explain that they will use this graphic organizer to help them organize their notes.Remind students that they reflected briefly on the guiding question, “How do animals’ bodies and behaviors help them to survive?” in their exit tickets from Unit 1, Lesson 13 after their Science Talk. Return the exit tickets.Tell students that they will use the answers they recorded on these exit tickets in addition to their Animal Defenses research journals to answer synthesize their learning about animal defense mechanisms and reflect on the guiding question.Use equity sticks to call on a student to read the headings on the chart on the front of the Guiding Question Reflection graphic organizer.Ask students what they notice about the headings. Listen for them to say that the headings are similar to those on the Examining Diagrams note-catchers from Unit 1. Ask:<ul style="list-style-type: none">* “How will this graphic organizer help us to synthesize what we have learned about animal defense mechanisms?”Listen for responses like: “We have to find details from two texts and use those details to make inferences about animal defense mechanisms.”	<ul style="list-style-type: none">Graphic organizers engage students more actively and provide scaffolding that is especially critical for learners with lower levels of language proficiency and/or learning. You may want to provide a partially filled-in graphic organizer for students needing additional supports.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Model filling in the graphic organizer using the example in the first row. Refer to the Guiding Question Reflection graphic organizer (answers, for teacher reference) as needed. The modeling may look like the following:<ul style="list-style-type: none">– Model flipping through the Animal Defenses research journal to page 2, Listening Closely note-catchers.– Skim the note-catcher to see if there's a defense mechanism to use that answers the guiding question. Notice the note 'venom paralyzes or kills prey' and write that in the first column of the Guiding Question Reflection graphic organizer.– Model including the source by writing "<i>Venom</i> p. 8."– Model finding another detail about this defense mechanism by flipping in the Animal Defense research journal to page 4, Listening Closely note-catcher. Skim the note-catcher and point out the note that venom causes pain and makes the black widow's enemy sick. Model looking for the exact quote from the text by flipping to <i>Venom</i> pp. 10 and 11, as noted at the top of the note-catcher.– Skim the page for the detail: "Black widows, found all over the U.S., rarely kill humans, but they can make us quite sick, causing not only fever, nausea, and pain ..." and model writing it in the middle column of the Guiding Question Reflection graphic organizer, including the source.– Model making an inference about the defense mechanism based on these two details, writing the inference in the last column of the graphic organizer.• Invite students to use the Guiding Question Reflection graphic organizer to organize their research notes from Unit 1. Circulate and support as necessary, being sure that they are addressing how animals use both their bodies and behaviors to survive.• After 10 minutes, bring students back together whole group. Ask:<ul style="list-style-type: none">* "Show a thumbs-up if you think you are ready to write your synthesis paragraph or a thumbs-down if you are not ready to write your synthesis paragraph."• Note any students who show a thumbs-down and check in with them during Work Time B.	<ul style="list-style-type: none">• Some students may benefit from having access to "hint cards": small slips of paper or index cards that they turn over for hints about how/where to find information for each column of the graphic organizer. For example, a hint card might say, "Check the Determining the Main Idea note-catcher from Unit 1, Lesson 6."



Work Time (continued)	Meeting Students' Needs
<p>B. Guided Synthesis of Unit 1 Texts: Writing a Synthesis Paragraph (15 minutes)</p> <ul style="list-style-type: none"> • Explain that students will now use their notes on the Guiding Question Reflection graphic organizer to write a paragraph. • Invite them to turn and talk with a partner to discuss the guiding question: <ul style="list-style-type: none"> * “How do animals’ bodies and behaviors help them survive?” • Tell students to share with their partner one way an animal’s body or behavior can help it to survive, and the inference they made. When the first partner has shared, invite the second partner to scan his or her notes for a detail that supports the first partner’s inference. Then, complete the same process as the second partner shares. • Cold call a few pairs to share. If students need more support using their notes to support their inferring, model with something like the following: <ul style="list-style-type: none"> – “I’ll start off my paragraph by reflecting the guiding question. So my topic sentence will be, ‘Animals’ bodies and behaviors help them survive in many ways.’ I want to be sure to use the words ‘defense mechanisms,’ since that’s the scientific term for what I’m writing about. – I’ll add, ‘These are known as the animal’s defense mechanisms.’ – Now I’m ready to start sharing some of my inferences. So I’ll write, ‘One common defense mechanism is venom. Venom is one of the most effective defense mechanisms. Venom can paralyze or kill an animal’s enemy or prey. For example, the venom of the black widow spider can make its enemy sick by causing a fever, nausea, or pain.’ • Notice the steps I took in these sentences. I started by writing about my inference, and then I included the details from the texts I used in my research that support that inference. Having those details on my graphic organizer made it easy for me to find them.” • Invite students to independently write their synthesis paragraphs. Remind them to use key words from the guiding question in their response. • Circulate and support as needed. Prompt students by asking: <ul style="list-style-type: none"> * “What did you infer about animal defense mechanisms in Unit 1?” * “What evidence in the texts we read supports your thinking?” • After about 10 minutes, bring students back together whole group. Cold call students to share one example from their paragraphs of how animals use their bodies and behaviors to survive. Record responses on the Guiding Questions anchor chart. 	<ul style="list-style-type: none"> • Some students may benefit from having paragraph frames as a scaffold for their synthesis paragraph.



Setting Purpose for a Deeper Study of Animal Defense Mechanisms

Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">Collect students' Guiding Question Reflection graphic organizers as a formative assessment on what they understand so far about animal defense mechanisms, as well as their ability to synthesize information.	

Closing and Assessment	Meeting Students' Needs
A. Reveal of Expert Group Animals (5 minutes) <ul style="list-style-type: none">Tell students the moment they have been waiting for is here—they will now find out what animal they will research and write about for the performance task.Share assigned animals and expert groups with students.	
B. Browse and Select Recommended Texts (5 minutes) <ul style="list-style-type: none">Allow students to browse the recommended texts for this unit. Encourage students to select texts related to the animal they will be studying.As needed, reinforce routines for accountable independent reading as needed (see Teaching Notes).	
Homework	Meeting Students' Needs
<ul style="list-style-type: none">Begin reading your independent reading book for this unit.	



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 1

Supporting Materials



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Performance Task Anchor Chart
(For Teacher Reference; from Unit 1, Lesson 1)

Directions: Add the bullet points below under the performance task prompt.

Performance Task

After researching informational texts on animal defenses, create a choose-your-own adventure book about your chosen animal. Write an introduction that describes your animal's physical characteristics, habitat, predators, and defense mechanisms. In your narrative, describe an encounter with a predator and two possible defense mechanisms for survival. Use details and examples from your research to develop your narrative, including concrete words, phrases, and sensory details to convey your animal's experiences.

- An illustrated cover page with title
- An informational page with a physical description of your animal, its habitat, its defense mechanisms, and predators
- An "About Your Adventure" page explaining how to read the book and the possible challenges your animal could encounter (in question form)
- An introduction to your narrative, describing the challenge your animal encounters and two choices (defense mechanisms) it could make in order to survive
- A page for each choice (defense mechanism) describing the experience or events showing how your animal responds to the choice
- List of sources from your research



Guiding Question Reflection Graphic Organizer:
How do animals' bodies and behaviors help them survive?

Name: _____

Date: _____

Details from a text * How do their bodies help them survive? * What behaviors do they use to help them survive?	Details from another text about this defense mechanism	My inferences • What I infer or conclude about this defense mechanism
• One defense mechanism is ...		
• One defense mechanism is ...		
• One defense mechanism is ...		
• One defense mechanism is ...		



Guiding Question Reflection Graphic Organizer

How do animals' bodies and behaviors help them survive?

Explain how animals' bodies and behaviors help them survive. *(Remember to use key words from the guiding question in your response.)*



Guiding Question Reflection Graphic Organizer:
How do animals' bodies and behaviors help them survive?
(Answers, for Teacher Reference)

Name: _____

Date: _____

Details from a text * How do their bodies help them survive? * What behaviors do they use to help them survive?	Details from another text about this defense mechanism	My inferences • What I infer or conclude about this defense mechanism
• One defense mechanism is ... “venom paralyzes or kills prey” Text: <i>Venom</i>, p. 8	“black widows, found all over the U.S., rarely kill humans, but they can make us quite sick, causing not only fever, nausea, and pain ...” Text: <i>Venom</i>, p. 11	Venom is one of the most effective defense mechanisms.
• One defense mechanism is ... “Many animals mimic other creatures to turn off predators.” Text: <i>Award-Winning Survival Skills: How Animals Elude Predators</i>	“The hoverfly gains protection from predators by looking like a bee.” Text: <i>Animal Behavior: Animal Defenses</i>, p. 91	Some animals trick other animals by looking like more dangerous or poisonous animals. Enemies know to stay away.
• One defense mechanism is ... “hard shells” Text: <i>Award-Winning Survival Skills: How Animals Elude Predators</i>	“[Millipedes] have a tough exoskeleton.” Text: <i>Venom</i>, p. 15	Shells protect some animals' bodies from predators.
• One defense mechanism is ... “Bright colors can also be warning colors.” Text: <i>Animal Behaviors: Animal Defenses</i>, p. 58	Spiders can be brown, black, red, or yellow (observations from photographs). Text: <i>Venom</i>, pp. 10 and 11	Predators see the bright colors and know to stay away from the animal because it is probably poisonous or venomous.



Guiding Question Reflection Graphic Organizer:
How do animals' bodies and behaviors help them survive?
(Answers, for Teacher Reference)

Explain how animals' bodies and behaviors help them survive. *(Remember to use key words from the guiding question in your response.)*

Animals' bodies and behaviors help them survive in many ways. These are known as the animal's defense mechanisms. One common defense mechanism is venom. Venom is one of the most effective defense mechanisms. Venom can paralyze or kill an animal's enemy or prey. For example, the venom of the black widow spider can make its enemy sick by causing a fever, nausea, or pain. Another way animals protect themselves is by mimicking other animals to look more dangerous or poisonous. Predators know to stay away. For example, the hoverfly looks like a bumblebee. Predators think it's a bee and stay away because they do not want to be stung. Other animals protect themselves with a hard shell. The shell protects the animal's body from predators. Millipedes are one example of an animal with a hard shell. One last way animals' bodies help them survive is by having bright colors. The predators see the bright colors and know to stay away from the animal because it is probably poisonous or venomous. One example of an animal that uses warning colors is spiders. Some can be brown or black, but other more dangerous ones have red or yellow on them. Their enemies know to stay away! There are many ways animals use their bodies and behaviors to help them survive.



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 2

Reading Informational Texts: Launching the Research Process



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

I can explain what a text says using specific details from the text. (RI.4.1)

I can make inferences using specific details from the text. (RI.4.1)

I can use technology to collaborate with others to produce a piece of writing. (W.4.6)

Supporting Learning Targets

- I can make inferences based on information from pictures and text from an online source.
- I can support my inferences with details and examples from pictures and text from an online source.
- I can find the meanings of unfamiliar words to help me better understand a text.

Ongoing Assessment

- Expert Group Animal Defense Mechanisms: KWL chart
- Expert Group Animal research guides



Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Engaging the Reader: Expert Group Animal Defense Mechanisms KWL Chart (5 minutes)B. Review Learning Targets (5 minutes)2. Work Time<ol style="list-style-type: none">A. Guided Practice: Using a Web page to Research the Millipede (15 minutes)B. Close Read: Examining Visuals on a Web page (10 minutes)C. Close Read: Using a Web page to Research the Expert Group Animal (20 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Share: Mix and Mingle (5 minutes)4. Homework<ol style="list-style-type: none">A. Continue reading your independent reading book for this unit.	<ul style="list-style-type: none">• This lesson begins students' research of their expert group animals. Therefore, students receive a new research journal that is specific to the "expert group animal" they are researching:<ul style="list-style-type: none">– Three-banded Armadillo– Springbok Gazelle– Mimic Octopus– Monarch Butterfly• The general name for students' journal is Expert Group Animal research journal. These journals contain note-catchers and graphic organizers tailored for research on students' assigned animal. However, each specific journal is titled and numbered the same across all expert groups. (For example, page 1 of every Expert Group Animal research journal – three-banded armadillos, springbok gazelles, mimic octopuses, and monarch butterflies – is the KWL Chart). This lets you refer to each material within the research journal across groups.• Like Unit 1, for each lesson in Unit 2, the materials list references the complete Expert Group Animal research journal, and also signals the specific note-catchers and graphic organizers (by name and with page number) within the research journal that students will use in that particular lesson.• The lesson opens with students using a KWL chart (page 1 of their Expert Group Animal research journal) to record what they already know about their expert group animal and questions they have about it. It is important to accept all answers, accurate and inaccurate, that students record in the Know column, as they will confirm information with evidence from their research texts throughout the research process.• Since this is the first time 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 Web sites for future research.



Agenda	Teaching Notes (continued)
	<ul style="list-style-type: none">• The routine of examining visuals taught in Unit 1 is repeated in this lesson as an entry point into closely rereading the Web pages. Students work with a partner from their expert group to closely examine a visual from their Web pages. Based on what they notice in this visual, they make inferences about their expert group animal. Then, they read their first text about their expert group animal with their partners and then with their whole group. They will reread this text and write a summary about it in Lesson 3 in preparation for the Mid-Unit 2 Assessment.• 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. Since they have experience with this process and because the four expert groups use different Web pages, the teacher will not be able to support students through this research as intensively as in the Unit 1 lessons. It is expected that, because students have had practice with this process already, they will be able to work more independently.• The expert group texts focus primarily on building background knowledge about the expert group animals. The key understandings students should take away from the texts are knowing their animal's appearance, its habitat, and its diet.• In advance:<ul style="list-style-type: none">– Review the Mix and Mingle in Checking for Understanding techniques (see Appendix).– Prepare the Expert Group Animal research journal, where students will record their research notes and thinking throughout Unit 2. Consider stapling these journals into packets for students before this lesson. You may have each student create a research folder for storing their journals and other notes, texts, and writing throughout the module.– Determine research partners for Work Times B and C.– Prepare the technology needed for Web page research.• Post: Close Readers Do These Things anchor chart (from Module 1), learning targets.



Lesson Vocabulary	Materials
internet, reliable sources, publisher, author, bias, accuracy, timeliness	<ul style="list-style-type: none">• Expert Group Animal research journals (one per student for his or her assigned animal; and one to display; see Teaching Notes)• Expert Group Animal Defense Mechanisms: KWL chart (page 1 of each Expert Group Animal research journal)• Performance Task anchor chart (begun in Unit 1, Lesson 1)• Equity sticks• Millipede Web Page research guide (one per student)• Computers (one per pair of students and one for teacher use)• Projector (for teacher use)• Expert Group Animal research guide (pages 2–6 of Expert Group Animal research journal)• Red pencils (one per student)• Close Readers Do These Things anchor chart (begun in Module 1, Unit 1, Lesson 3)



Opening	Meeting Students' Needs
<p>A. Engaging the Reader: Expert Group Animal Defense Mechanisms KWL Charts (5 minutes)</p> <ul style="list-style-type: none">• Distribute Expert Group Animal research journals to students according to their assigned animal of study (see Teaching Notes).• Tell students that they will use this journal in the same way that they used the Animal Defenses research journal—to record their notes and thinking about the expert group animal they are researching. This research journal, however, is specific to the particular animal they will be becoming “experts” on in their small groups.• Ask students to move to sit with their expert groups.• Invite them to open to page 1 in their Expert Group Animal research journals, to the Expert Group Animal Defense Mechanisms: KWL chart. Ask:<ul style="list-style-type: none">* “Let’s review. How do we use this kind of graphic organizer?”• Listen for responses like: “In the K column, we record what we know or think we know about a topic.”• Explain that as in Unit 1, students will record their knowledge, questions, and learning about their expert group animal on this chart. Invite them to record the name of their expert group animal at the top of the KWL chart.• Ask students to take several minutes to independently list what they think they already know about their expert group animal and its defense mechanisms in the left K column.• Invite them to share what they already know or think they already know about their expert group animal and its defense mechanisms with their expert groups.• Remind students that they will continue to learn about animal defense mechanisms and will look for evidence from different texts to either confirm or revise their current knowledge. This KWL chart will grow throughout the unit as a way to document the class’s growth in scientific knowledge about animal defense mechanisms.• Tell students that they will now think about what they are curious about regarding their expert group animal and its defense mechanisms. What do they want to learn about their animal? Explain that this is questioning process that scientists go through as they research and discover new things in the world of science. Without a deep sense of curiosity, scientists wouldn’t have any motivation to conduct experiments or research a topic. Scientists often ask “Why?” or “How come?” or “What if?” Scientists always ask questions as part of scientific research.	



Opening (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Invite students to independently record at least three questions about what they want to know about their expert animal's defense mechanisms in the middle W column. If students do not have much background knowledge about this topic, they may not have many questions at this time. This is okay, because the class will revisit and record more on this chart as they read other texts. Reiterate that they will be looking for answers to these questions as they continue learning about animal defense mechanisms during this unit. If necessary, remind students to refer to the Performance Task anchor chart to see what kind of information they will need to include on their informational page and in their narratives.	
<p>B. Review Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Direct students' attention to the learning targets and read them aloud:<ul style="list-style-type: none">* "I can make inferences based on information from pictures and text from an online source."* "I can support my inferences with details and examples from pictures and text from an online source."* "I can find the meanings of unfamiliar words to help me better understand a text."• Remind students that they discussed these learning targets in Unit 1. Ask them to turn to a partner and explain the targets in their own words.• Use equity sticks to cold call a few students to share their explanations.• Listen for students to share responses like: "An inference is when you think about what the text says and when you use your background knowledge to figure out what an author doesn't explicitly say."• Tell students that today, they'll have another opportunity to practice these targets using a different type of text when they begin researching their expert group animals. Ask:<ul style="list-style-type: none">* "What does it mean to <i>research</i>?"• Listen for responses such as: "It means to ask a question and then look for the answer in different sources, like books, articles, or videos."• Explain the research process and remind students that they experienced these steps in Unit 1 when researching animal defense mechanisms:<ul style="list-style-type: none">* "Research begins with a question, which leads us to many sources."* "Researchers read the sources, looking for the answer to their question."* "Researchers take notes about what they have learned and synthesize their notes to answer their question."	<ul style="list-style-type: none">• Discussing and clarifying the language of learning targets helps build academic vocabulary.



Opening (continued)	Meeting Students' Needs
<ul style="list-style-type: none">Remind students that the focus of this unit is writing the informational page of their performance task and that the question they are trying to answer is:<ul style="list-style-type: none">* "How does my expert group animal use its body and behaviors to help it survive?"	

Work Time	Meeting Students' Needs
<p>A. Guided Practice: Using a Web page to Research the Millipede (15 minutes)</p> <ul style="list-style-type: none">Explain that so far in this module, students have used informational articles and books to research animal defense mechanisms. Explain that good researchers use printed books and articles, but they also search for information on the <i>internet</i>. Tell students that in this lesson and the next, they will apply what they know about reading informational texts to researching using online sources. Ask:<ul style="list-style-type: none">* "What is the internet?"Listen for responses like: "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:<ul style="list-style-type: none">* "What kind of sources can you find on the internet?"Listen for responses like: "Web sites, electronic versions of reference books, newspapers, blogs, or videos."Tell students that since so many people have access to the internet, it is important to be sure they are using <i>reliable sources</i> when researching.Invite them to turn and talk. Ask:<ul style="list-style-type: none">* "What word do you hear in <i>reliable</i>? What does <i>reliable</i> mean?"Listen for responses such as: "I hear <i>rely</i> in that word" and "It means trusted or dependable."Explain that students can determine whether an internet source is reliable by identifying the <i>publisher</i>, <i>author</i>, <i>bias</i>, <i>accuracy</i>, and <i>timeliness</i> of the source. Discuss the meaning of each of these terms.<ul style="list-style-type: none">* <i>Publisher</i>: the organization that produces or releases the work* <i>Author</i>: the person who writes or creates the work	<ul style="list-style-type: none">ELLs receive extended time as an accommodation on New York State assessments.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">* <i>Bias</i>: the point of view on a topic* <i>Accuracy</i>: correctness; the degree to which something is free of errors* <i>Timeliness</i>: appropriate for the time• Explain to students that a reliable site to use for research is usually created by the government (.gov), educational institutions (.edu), or non-profit organizations (.org). Sometimes sources created by commercial organizations (.com) are reliable, but not always. A site that presents both sides of an argument or does not have any bias and that presents facts is also reliable. Explain that they can tell whether a site is accurate by looking at who created the site and their credentials, as well as if it does not have errors in spelling or grammar. Tell students that a site that is reliable is timely; it does not have out-of-date information. Explain that it should also be visually appealing, clean, and uncluttered, with links that work.• Tell students that the Web pages they will use in this lesson have been chosen for them and are all reliable based on these criteria.• Distribute the Millipede Web Page research guide to students and display one copy for modeling. Tell them that they will use this research guide to practice using a Web page to research the millipede.• On a computer, display and model navigating the Web page identified at the top of the Millipede research guide and comparing it to a print source. Model these techniques:<ul style="list-style-type: none">– Using section headings to skim and scroll for information– Explaining how pictures and videos are integrated into a Web page– Clicking on links like “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.• Next, model using the Web page to research the millipede and recording notes starting on the second page of the Millipede Web Page research guide. Model Rows 1–4 on the research guide—determining the gist of the Web page through determining the main idea of Paragraphs 1 and 2. Answer any clarifying questions students may have.	



Work Time (continued)	Meeting Students' Needs
<p>B. Close Read: Examining Visuals on a Web page (10 minutes)</p> <ul style="list-style-type: none">• Tell students that they will now have a chance to research their expert group animals using online sources. Invite them to turn to their Web Page research guide starting on page 2 in their Expert Group Animal research journals.• Draw their attention to the Close Readers Do These Things anchor chart and remind them that they will still do all of these things to closely read their Web pages, just like when they read print texts:<ul style="list-style-type: none">– Read small chunks of text slowly and think about the gist.– Reread each passage one sentence at a time.– Underline things that you understand or know about.– Circle or underline words that you do not know.– Talk with your partners about all of your good ideas.– State the gist or message of the paragraph in the margin.– Listen to the questions:<ul style="list-style-type: none">• Go back to the text to find answers to questions.• Talk with your partners about the answers you find.• At this point, students should have access to a computer and be sitting with a partner. Distribute computers or ask them to move to computers as necessary.• Invite students to open the Web browser with their partner and type the URL at the top of their Web Page research guide into the browser's address bar.• Use equity sticks to call on a student to read the focus task at the top of the Web Page research guide:<ul style="list-style-type: none">– “Describe your expert group animal.”• Tell students that they should keep this question in mind while they work.• Explain that they are going to examine the visual in the article before they read the article. Tell them that, like when they examined visuals in Unit 1, they will think about what details they notice in the picture, then think about what inferences they can make about their expert group animal based on their observations. Next, they will read and reread the text, looking for details that support their inferences.• Remind students that they will look for details and make inferences before reading the Web page article.	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"> Review working with a partner by asking: <ul style="list-style-type: none"> * “What does it look like or sound like when working in a small group with your peers?” Listen for responses like: “Wait my turn to speak, so I am heard,” “Don’t shout/speak too loudly,” “Make sure everyone gets a turn to speak,” “No one person does most/all of the speaking,” and “Use information from the text to support my ideas.” Prompt students through the process by inviting them to look at the photograph for their Web page. Tell them to independently examine the picture, thinking about what details they notice and writing them in the Details from the Visual column in the Expert Group Animal research guide. After several minutes, invite students to share with their partner what they wrote in the Details from the Visual column. Circulate to support students as needed. Notice whether they are following class norms when working in a group and identifying explicit details from the picture when sharing their notes. Prompt students if necessary by asking questions such as: <ul style="list-style-type: none"> * “What do you notice in the picture?” Support students who struggled with this on the Mid-Unit 1 Assessment. If necessary, model briefly using the millipede Web page research guide. After several minutes, remind students that now they will use the details they observed in the diagram and their background knowledge to make inferences about their expert group animal. Invite them to think to themselves for a minute before sharing with their partner. Ask: <ul style="list-style-type: none"> * “What do you infer about your expert group animal? What details from the picture did you base your inference on?” Once students have had some time to discuss their inferences, invite them to write their inferences on their research guide. Tell students to use the sentence frame: “We infer _____ because the picture/caption shows/says _____.” Circulate and support students as necessary, paying special attention to students who rated themselves with a fist, one finger, or two fingers during the Fist to Five for this target. Remind students that they will fill in the right-hand column after reading their Web page. Invite them to read their Web page together, looking for details that support their inferences. Ask students to record these details in the right-hand column of their note-catchers. Circulate to support as needed. Probe by asking: 	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">* “What details support your inferences about the visual?”* “How does that detail support your inference?”• Support students who struggled with this on the Mid-Unit 1 Assessment.	
<p>C. Close Read: Using a Web page to Research the Expert Group Animal (20 minutes)</p> <ul style="list-style-type: none">• Remind students that close readers reread the texts they are analyzing paragraph by paragraph, sentence by sentence, and that this applies to closely reading online sources as well. Explain that they will now reread their Web pages closely as a group to think carefully about the focus task:<ul style="list-style-type: none">* “Describe your expert group animal.”• Tell students they will be doing this by rereading paragraphs with their expert groups and discussing the text as they read.• Using the Expert Group Animal research guide, guide students through rereading the text, inviting them to Think-Pair-Share and discuss the prompts with their expert groups.• Circulate and support students as needed. Stop them at the sixth row and explain that they will continue rereading the Web page in the next lesson.	<ul style="list-style-type: none">• Some students may benefit from having a printed copy of the Web page with key sections pre-highlighted in their texts. This will help them focus on small sections rather than scanning the whole text for answers.



Closing and Assessment	Meeting Students' Needs
<p>A. Share: Mix and Mingle (5 minutes)</p> <ul style="list-style-type: none">• Tell students that, in a moment, they will share something new they learned about their expert group animal.• Remind them that they used the Mix and Mingle Checking for Understanding technique (in Unit 1, Lesson 4) to practice sharing their opinions about whether fiction is a good teacher of facts.• Review these directions for the Mix and Mingle:<ol style="list-style-type: none">1. Stand up and find a partner.2. Share one new thing you learned about your expert group animal. Be respectful speakers and listeners.3. Thank your partner, then find another and repeat.• Address any clarifying questions about Mix and Mingle.• Give students 4 minutes to participate in the Mix and Mingle. Listen to their conversations for scientifically accurate facts about their expert group animals.	
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Continue reading your independent reading book for this unit.	



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 2

Supporting Materials



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Millipede Web Page Research Guide

Source: <http://a-z-animals.com/animals/millipede/>

Focus task: Describe your expert group animal.

Directions:

1. Look at the photograph on the top of your Web page.
2. In the first column of the graphic organizer below, record three details you see in the photograph.
3. In the second column of the graphic organizer, record the inferences you make based on these details.

****NOTE: Do NOT complete the right-hand column of the graphic organizer yet!**

4. Read the Web page.
5. In the right-hand column of the graphic organizer, record details from the Web page that support your inferences in the middle column.

Details from the Photograph (explicit information)	My Inferences (what I infer about this animal)	Details in the Text That Support My Inferences (confirmed with explicit information)



Millipede Web Page Research Guide

1. What is the gist of this Web page?	
2. Look at the photographs at the top of the Web page. Then use details from the photographs to answer the question on the right.	What details do you see about the millipede in these photographs?
3. Read the first two paragraphs. Then use details from the text to answer the questions on the right.	Click on the word invertebrate . What does it mean? What words does the author use to describe the millipede?
4. What is the main idea of these paragraphs? Write it in the box on the right with your red pencil.	



Millipede Web Page Research Guide

<p>5. Read Paragraphs 3 and 4. Then use details from the text to answer the questions on the right.</p>	<p>What do you think inhabit means? What words in the text make you think so?</p> <p>Where does the millipede live?</p>
<p>6. What is the main idea of these paragraphs? Write it in the box on the right with your red pencil.</p>	
<p>7. Read Paragraphs 5 and 6. Then use details from the text to answer the questions on the right.</p>	<p>What do you think feeds means? What words in the text make you think so?</p> <p>What does the millipede feed on?</p>



Millipede Web Page Research Guide

<p>8. What is the main idea of these paragraphs? Write it in the box on the right with your red pencil.</p>	
<p>9. Read Paragraphs 7 and 8. Then use details from the text to answer the questions on the right.</p>	<p>What are the millipede's predators?</p> <p>List two ways the millipede protects itself from predators.</p>
<p>10. What is the main idea of these paragraphs? Write it in the box on the right with your red pencil.</p>	



Millipede Web Page Research Guide

Pulling it all together ...	
11. Using evidence from the text, sketch what the millipede does when a predator is near.	
12. MAIN IDEA Look back at the answers you wrote in red. What is the main idea of this Web page? Write it in the box on the right with your red pencil.	
13. SUMMARY After thinking more closely about your expert group's Web page, summarize what you think this Web page is mostly about. Use several specific details from the Web page in your summary. <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	



Millipede Web Page Research Guide

<p>14. WORD MEANING</p> <p>Reread this research guide, noticing the words in bold print. Talk with your partner about three ways you might figure out the meaning of an unknown word. Then, follow the directions on the right.</p>	<p>Add the definitions of the words in bold print to the glossary of your Expert Group Animal research journal.</p>
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Expert Group Animal Research Journal:
Three-Banded Armadillo

Name: _____

Date: _____

Expert Group Animal Defense Mechanisms: KWL Chart

Focus question: How does the body and behaviors of your animal help it to survive?

I THINK I KNOW ...		I WANT to know ...	I LEARNED ...	
Information	Y/N		<u>Information</u>	<u>Source</u>



Expert Group Animal Research Journal:

Three-Banded Armadillo
Web Page Research Guide

Source:

<http://www.arkive.org/brazilian-three-banded-armadillo/tolypeutes-tricinctus/>

Focus task: Describe your expert group animal.

Directions:

1. Look at the photograph on the top of your Web page.
2. In the first column of the graphic organizer below, record three details you see in the photograph.
3. In the second column of the graphic organizer, record the inferences you make based on these details.

****NOTE: Do NOT complete the right-hand column of the graphic organizer yet!**

4. Read the Web page.
5. In the right-hand column of the graphic organizer, record details from the Web page that support your inferences in the middle column.

Details from the Photograph (explicit information)	My Inferences (what I infer about this animal)	Details in the Text That Support My Inferences (confirmed with explicit information)



Expert Group Animal Research Journal:

Three-Banded Armadillo
Web Page Research Guide

1. What is the gist of this Web page?	
2. Use the arrows to scroll through the slideshow photographs at the top of the Web page. Then use details from the photographs to answer the question on the right.	What details do you see about the armadillo in these photographs?
3. Scroll down and read the section titled “Brazilian three-banded armadillo description.” Then use details from the text to answer the questions on the right.	<p>What words does the author use to describe the three-banded armadillo’s armour (armor) plating?</p> <p>How does the three-banded armadillo use its plating to protect itself?</p>



Expert Group Animal Research Journal:

Three-Banded Armadillo
Web Page Research Guide

<p>4. What is the main idea of this section? Write it in the box on the right with your red pencil.</p>	
<p>5. Scroll down and read the section titled “Brazilian three-banded armadillo biology.” Use details from the text to answer the questions on the right.</p>	<p>What do you think diet means? What words in the text make you think so?</p> <p>What is the three-banded armadillo’s diet?</p> <p>The Web page says, “It does not appear to seek refuge in burrows, and instead relies upon its ability to roll into an impregnable ball when threatened.” What does it mean to seek refuge? What words in the text make you think so?</p> <p>Describe how a three-banded armadillo seeks refuge.</p>



Expert Group Animal Research Journal:

Three-Banded Armadillo
Web Page Research Guide

6. What is the main idea of this section? Write it in the box on the right with your red pencil.	
7. Scroll down and read the sections titled “Brazilian three-banded armadillo range” and “Brazilian three-banded armadillo habitat.” Then use details from the text to answer the question on the right.	<p>What do you think habitat means? What words in the text make you think so?</p> <p>What is the three-banded armadillo’s habitat?</p>
8. Now scroll back up to the photographs at the top of the Web page. Use details from the photographs to answer the question on the right.	<p>Describe the three-banded armadillo’s habitat.</p>



Expert Group Animal Research Journal:
Three-Banded Armadillo
Web Page Research Guide

<p>9. What is the main idea of these sections? Write it in the box on the right with your red pencil.</p>	
<p>Pulling it all together ...</p>	
<p>10. Using evidence from the text, sketch what the armadillo does when a predator is near.</p>	



Expert Group Animal Research Journal:

Three-Banded Armadillo
Web Page Research Guide

11. MAIN IDEA

Look back at the answers you wrote in red. What is the main idea of this Web page? Write it in the box on the right with your red pencil.

12. SUMMARY

After thinking more closely about your expert group's Web page, summarize what you think this Web page is mostly about. Use several specific details from the Web page in your summary.



Expert Group Animal Research Journal:

Three-Banded Armadillo
Web Page Research Guide

13. WORD

MEANING

Reread this research guide, noticing the words in bold print. Talk with your partner about three ways you might figure out the meaning of an unknown word. Then, follow the directions on the right.

Choose three words in bold print in this guide. Add the definitions of these words to the glossary of your Expert Group Animal research journal.



Expert Group Animal Research Journal:
Three-Banded Armadillo
Research Note-Catcher

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the page numbers that have information about your expert group animal:

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the name of the section that has information about your expert group animal:

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:



Expert Group Animal Research Journal:
Three-Banded Armadillo
Research Note-Catcher

Source: _____

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



Expert Group Animal Research Journal:
Three-Banded Armadillo
Research Note-Catcher

Source: _____

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



It is based on your research this means...

- It has realistic coloring, shape, size, and habitat
- It has a descriptive and accurate caption that uses vocabulary from your research

<p>First Draft:</p>	<p>Second Draft:</p>
<p>Caption:</p>	<p>Caption:</p>
<p>Third Draft</p>	<p>Fourth Draft</p>
<p>Caption:</p>	<p>Caption:</p>



Expert Group Animal Research Journal:
Three-Banded Armadillo
Glossary

Word/Phrase	Definition	Vocabulary strategy I used to learn this word:	Sketch/Diagram



Expert Group Animal Research Journal:
Three-Banded Armadillo
Glossary

Word/Phrase	Definition	Vocabulary strategy I used to learn this word:	Sketch/Diagram



Expert Group Animal Research Journal:
Springbok Gazelle

Name:

Date:

Expert Group Animal Defense Mechanisms: KWL Chart

Focus question: How does the body and behaviors of your animal help it to survive?

I THINK I KNOW ...		I WANT to know ...	I LEARNED ...	
Information	Y/N		<u>Information</u>	<u>Source</u>



Expert Group Animal Research Journal:

Springbok Gazelle

Web Page Research Guide

Source:

<http://www.arkive.org/springbok/antidorcas-marsupialis/>

Focus task: Describe your expert group animal.

Directions:

6. Look at the photograph on the top of your Web page.
7. In the first column of the graphic organizer below, record three details you see in the photograph.
8. In the second column of the graphic organizer, record the inferences you make based on these details.
****NOTE: Do NOT complete the right-hand column of the graphic organizer yet!**
9. Read the Web page.
10. In the right-hand column of the graphic organizer, record details from the Web page that support your inferences in the middle column.

Details from the Photograph (explicit information)	My Inferences (what I infer about this animal)	Details in the Text That Support My Inferences (confirmed with explicit information)



Expert Group Animal Research Journal:

Springbok Gazelle

Web Page Research Guide

1. What is the gist of this Web page?	
2. Use the arrows to scroll through the slideshow photographs at the top of the Web page. Then use details from the photographs to answer the question on the right.	What details do you see about the springbok in these photographs?
3. Now scroll through the slideshow videos. Use details from the videos to answer the question on the right.	What details do you see about the springbok in these videos?



Expert Group Animal Research Journal:

Springbok Gazelle

Web Page Research Guide

<p>4. Scroll down and read the section titled “Springbok description.” Then use details from the text to answer the questions on the right.</p>	<p>What words does the author use to describe the springbok?</p>
<p>5. What is the main idea of this section? Write it in the box on the right with your red pencil.</p>	



Expert Group Animal Research Journal:

Springbok Gazelle

Web Page Research Guide

<p>6. Scroll down and read the section titled “Springbok biology.” Then use details from the text to answer the questions on the right.</p>	<p>What do you think graze means? What words in the text make you think so?</p> <p>What does the springbok graze on?</p> <p>The Web page says, “Springboks are renowned for their pronking, or stotting, behavior.” What does pronking or stotting mean? What words in the text make you think so?</p> <p>Describe how a springbok uses pronking to protect itself.</p>
<p>7. What is the main idea of this section? Write it in the box on the right with your red pencil.</p>	



Expert Group Animal Research Journal:

Springbok Gazelle

Web Page Research Guide

<p>8. Scroll down and read the sections titled “Springbok range” and “Springbok habitat.” Then use details from the text to answer the question on the right.</p>	<p>What do you think habitat means? What words in the text make you think so?</p> <p>What is the springbok’s habitat?</p>
<p>9. Now scroll back up to the photographs and video at the top of the Web page. Use details from the photographs and videos to answer the question on the right.</p>	<p>Describe the springbok’s habitat.</p>
<p>10. What is the main idea of these sections? Write it in the box on the right with your red pencil.</p>	



Expert Group Animal Research Journal:

Springbok Gazelle

Web Page Research Guide

Pulling it all together ...	
11. Using evidence from the text, sketch what the springbok does when a predator is near.	
12. MAIN IDEA Look back at the answers you wrote in red. What is the main idea of this Web page? Write it in the box on the right with your red pencil.	



Expert Group Animal Research Journal:

Springbok Gazelle

Web Page Research Guide

Pulling it all together ...

13. SUMMARY

After thinking more closely about your expert group's Web page, summarize what you think this Web page is mostly about. Use several specific details from the Web page in your summary.

**14. WORD
MEANING**

Reread this research guide, noticing the words in bold print. Talk with your partner about three ways you might figure out the meaning of an unknown word. Then, follow the directions on the right.

Choose three words in bold print in this guide. Add the definitions of these words to the glossary of your Expert Group Animal research journal.



Expert Group Animal Research Journal:
Springbok Gazelle
Research Note-Catcher

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the page numbers that have information about your expert group animal:

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the name of the section that has information about your expert group animal:

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:



Expert Group Animal Research Journal:
Springbok Gazelle
Research Note-Catcher

Source: _____

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



Expert Group Animal Research Journal:
Springbok Gazelle
Research Note-Catcher

Source: _____

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



It is based on your research this means...

- It has realistic coloring, shape, size, and habitat
- It has a descriptive and accurate caption that uses vocabulary from your research

First Draft:	Second Draft:
Caption:	Caption:
Third Draft	Fourth Draft
Caption:	Caption:



Expert Group Animal Research Journal:
Springbok Gazelle
Glossary

Word/Phrase	Definition	Vocabulary strategy I used to learn this word:	Sketch/Diagram



Expert Group Animal Research Journal:
Springbok Gazelle
Glossary

Word/Phrase	Definition	Vocabulary strategy I used to learn this word:	Sketch/Diagram



Expert Group Animal Research Journal:
Mimic Octopus

Name:

Date:

Expert Group Animal Defense Mechanisms: KWL Chart

Focus question: How does the body and behaviors of your animal help it to survive?

I THINK I KNOW ...		I WANT to know ...	I LEARNED ...	
Information	Y/N		<u>Information</u>	<u>Source</u>



Expert Group Animal Research Journal:

Mimic Octopus

Web Page Research Guide

Source:

<http://phenomena.nationalgeographic.com/2009/12/13/the-mimic-octopus-my-first-ever-post/>

Focus task: Describe your expert group animal.

Directions:

11. Look at the photograph on the top of your Web page.
12. In the first column of the graphic organizer below, record three details you see in the photograph.
13. In the second column of the graphic organizer, record the inferences you make based on these details.

****NOTE: Do NOT complete the right-hand column of the graphic organizer yet!**

14. Read the Web page.
15. In the right-hand column of the graphic organizer, record details from the Web page that support your inferences in the middle column.

Details from the Photograph (explicit information)	My Inferences (what I infer about this animal)	Details in the Text That Support My Inferences (confirmed with explicit information)



Expert Group Animal Research Journal:

Mimic Octopus

Web Page Research Guide

1. What is the gist of this Web page?	
2. Scroll down to the photographs of the mimic octopus. Then use details from the photographs to answer the question on the right.	<p>There are six photographs—three in a column on the left, and three in a column on the right. Which column shows photographs of the mimic octopus?</p> <p>How are the photographs in the column on the left related to the photographs in the column on the right?</p> <p>What details do you see about the mimic octopus in these photographs?</p>
3. Scroll back up to the beginning of the post and read the first two paragraphs. Then use details from the text to answer the questions on the right.	<p>What do you think transformation means? What words in the text make you think so?</p> <p>What animal went through a transformation?</p>



Expert Group Animal Research Journal:

Mimic Octopus

Web Page Research Guide

<p>4. The first paragraph is an introduction to the post.</p> <p>5. What is the main idea of the second paragraph? Write it in the box on the right with your red pencil.</p>	
<p>6. Scroll down and read the third, fourth, and fifth paragraphs. Then use details from the text to answer the questions on the right.</p>	<p>What do you think impersonate means? What words in the text make you think so?</p> <p>What does the mimic octopus impersonate?</p> <p>Why might the mimic octopus want to impersonate venomous or distasteful animals?</p> <p>Where has the mimic octopus been seen?</p>



Expert Group Animal Research Journal:

Mimic Octopus

Web Page Research Guide

<p>7. Using details from the fourth paragraph, sketch the mimic octopus impersonating a sea snake in the box to the right.</p>	
<p>8. What is the main idea of Paragraphs 3–5? Write it in the box on the right with your red pencil.</p>	
<p>9. Scroll down and read the sixth paragraph. Then use details from the text to answer the questions on the right.</p>	<p>What do you think mimicking means? What words in the text make you think so?</p> <p>What are some benefits of mimicking other animals?</p>



Expert Group Animal Research Journal:

Mimic Octopus

Web Page Research Guide

10. Read the seventh through ninth paragraphs. Then use details from the text to answer the questions on the right.	<p>What makes the mimic octopus different from snakes, flies, spiders, and plants that use mimicry as a defense mechanism?</p> <p>What is a predator of the mimic octopus?</p>
11. What is the main idea of Paragraphs 6–9? Write it in the box on the right with your red pencil.	
12. Read Paragraphs 10–13. Then use details from the text to answer the question on the right.	<p>What do you think well-suited means? What words in the text make you think so?</p> <p>What makes the mimic octopus well-suited to transform into other animals?</p>



Expert Group Animal Research Journal:

Mimic Octopus

Web Page Research Guide

<p>13. What is the main idea of Paragraphs 10–13? Write it in the box on the right with your red pencil.</p>	
<p>14. Read from Paragraph 14 to the end of the post. What is the main idea of these paragraphs? Write it in the box on the right with your red pencil.</p>	
<p>Pulling it all together ...</p>	
<p>15. Using evidence from the text, sketch what the mimic octopus does when a predator is near.</p>	



Expert Group Animal Research Journal:

Mimic Octopus

Web Page Research Guide

16. MAIN IDEA

Look back at the answers you wrote in red. What is the main idea of this Web page? Write it in the box on the right.

17. SUMMARY

After thinking more closely about your expert group's Web page, summarize what you think this Web page is mostly about. Use several specific details from the Web page in your summary.

18. WORD MEANING

Reread this research guide, noticing the words in bold print. Talk with your partner about three ways you might figure out the meaning of an unknown word. Then, follow the directions on the right.

Choose three words in bold print in this guide. Add the definitions of these words to the glossary of your Expert Group Animal research journal.



Expert Group Animal Research Journal:

Mimic Octopus
Research Note-Catcher

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the page numbers that have information about your expert group animal:

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the name of the section that has information about your expert group animal:

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:



Expert Group Animal Research Journal:
Mimic Octopus
Research Note-Catcher

Source: _____

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



Expert Group Animal Research Journal:
Mimic Octopus
Research Note-Catcher

Source: _____

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



Mimic Octopus Sketch Page

It is based on your research this means...

- It has realistic coloring, shape, size, and habitat
- It has a descriptive and accurate caption that uses vocabulary from your research

First Draft:	Second Draft:
Caption:	Caption:
Third Draft	Fourth Draft
Caption:	Caption:



Expert Group Animal Research Journal:
Mimic Octopus
Glossary

Word/Phrase	Definition	Vocabulary strategy I used to learn this word:	Sketch/Diagram



Expert Group Animal Research Journal:
Mimic Octopus
Glossary

Word/Phrase	Definition	Vocabulary strategy I used to learn this word:	Sketch/Diagram



Expert Group Animal Research Journal:
Monarch Butterfly

Name:

Date:

Expert Group Animal Defense Mechanisms: KWL Chart

Focus question: How does the body and behaviors of your animal help it to survive?

I THINK I KNOW ...		I WANT to know ...	I LEARNED ...	
Information	Y/N		<u>Information</u>	<u>Source</u>



Expert Group Animal Research Journal:

Monarch Butterfly

Web Page Research Guide

Source:

<http://www.arkive.org/monarch-butterfly/danaus-plexippus/>

Focus task: Describe your expert group animal.

Directions:

1. Look at the photograph on the top of your Web page.
2. In the first column of the graphic organizer below, record three details you see in the photograph.
3. In the second column of the graphic organizer, record the inferences you make based on these details.

****NOTE: Do NOT complete the right-hand column of the graphic organizer yet!**

4. Read the Web page.
5. In the right-hand column of the graphic organizer, record details from the Web page that support your inferences in the middle column.

Details from the Photograph (explicit information)	My Inferences (what I infer about this animal)	Details in the Text That Support My Inferences (confirmed with explicit information)



Expert Group Animal Research Journal:

Monarch Butterfly

Web Page Research Guide

1. What is the gist of this Web page?	
2. Use the arrows to scroll through the slideshow photographs at the top of the Web page. Then use details from the photographs to answer the question on the right.	What details do you see about the monarch in these photographs?
3. Now scroll through the slideshow videos. Use details from the videos to answer the question on the right.	What details do you see about the monarch in these videos?



<p>4. Scroll down and read the section titled “Monarch butterfly description.” Then use details from the text to answer the questions on the right.</p>	<p>What words does the author use to describe the monarch butterfly’s wings?</p> <p>How do the monarch butterfly’s wings protect it?</p>
<p>5. What is the main idea of this section? Write it in the box on the right with your red pencil.</p>	
<p>6. Scroll down and read the section titled “Monarch butterfly biology.” Then use details from the text to answer the questions on the right.</p>	<p>What do you think migration means? What words in the text make you think so?</p> <p>When do the monarch butterflies migrate? Where do they migrate to?</p>



Expert Group Animal Research Journal:

Monarch Butterfly

Web Page Research Guide

<p>Continue reading the section titled “Monarch butterfly biology.” Then use details from the text to answer the questions on the right.</p>	<p>What does feeding mean? What words in the text make you think so?</p> <p>List two things the monarch butterfly feeds on.</p> <p>How does what the monarch caterpillar feed on protect it when it changes into a butterfly?</p>
<p>7. What is the main idea of this section? Write it in the box on the right with your red pencil.</p>	
<p>8. Scroll down and read the sections titled “Monarch butterfly range” and “Monarch butterfly habitat.” Use details from the text to answer the question on the right.</p>	<p>What do you think habitat means? What words in the text make you think so?</p> <p>What is the monarch butterfly’s habitat?</p>



Expert Group Animal Research Journal:

Monarch Butterfly

Web Page Research Guide

<p>9. Now scroll back up to the photographs and video at the top of the Web page. Use details from the photographs and videos to answer the question on the right.</p>	<p>Describe the monarch butterfly's habitat.</p>
<p>10. What is the main idea of these sections? Write it in the box on the right with your red pencil.</p>	
<p>Pulling it all together ...</p>	
<p>11. Using evidence from the text, sketch what the monarch butterfly does when a predator is near.</p>	



Expert Group Animal Research Journal:

Monarch Butterfly

Web Page Research Guide

12. MAIN IDEA

Look back at the answers you wrote in red. What is the main idea of this Web page? Write it in the box on the right with your red pencil.

13. SUMMARY

After thinking more closely about your expert group's Web page, summarize what you think this Web page is mostly about. Use several specific details from the Web page in your summary.



Expert Group Animal Research Journal:

Monarch Butterfly

Web Page Research Guide

<p>14. WORD MEANING</p> <p>Reread this research guide, noticing the words in bold print. Talk with your partner about three ways you might figure out the meaning of an unknown word. Then, follow the directions on the right.</p>	<p>Add the definitions of the words in bold to the glossary of your Expert Group Animal research journal.</p>
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Expert Group Animal Research Journal:

Monarch Butterfly

Research Note-Catcher

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the page numbers that have information about your expert group animal:

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the name of the section that has information about your expert group animal:

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:



Expert Group Animal Research Journal:
Monarch Butterfly
Research Note-Catcher

Source: _____

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



Expert Group Animal Research Journal:
Monarch Butterfly
Research Note-Catcher

Source: _____

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



It is based on your research this means...

- It has realistic coloring, shape, size, and habitat
- It has a descriptive and accurate caption that uses vocabulary from your research

First Draft:	Second Draft:
Caption:	Caption:
Third Draft	Fourth Draft
Caption:	Caption:



Expert Group Animal Research Journal:
Monarch Butterfly
Glossary

Word/Phrase	Definition	Vocabulary strategy I used to learn this word:	Sketch/Diagram



Expert Group Animal Research Journal:
Monarch Butterfly
Glossary

Word/Phrase	Definition	Vocabulary strategy I used to learn this word:	Sketch/Diagram



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 3

Reading Informational Texts: Reading Closely about Expert Group Animals on a Web Page



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

I can explain what a text says using specific details from the text. (RI.4.1)

I can make inferences using specific details from the text. (RI.4.1)

I can summarize informational or persuasive text. (RI.4.2)

I can use technology to collaborate with others to produce a piece of writing. (W.4.6)

Supporting Learning Target

- I can make inferences based on information from pictures and text from an online source.
- I can support my inferences with details and examples from pictures and text from an online source.
- I can find the meanings of unfamiliar words to help me better understand a text.
- I can write a summary paragraph about my animal after closely reading a text.

Ongoing Assessment

- Web Page research guide
- Expert group text summary



Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Engaging the Reader: Entrance Ticket (5 minutes)B. Review Learning Targets (5 minutes)2. Work Time<ol style="list-style-type: none">A. Close Read: Using a Web page to Research the Expert Group Animal (15 minutes)B. Independent Practice: Writing a Summary (15 minutes)C. Rereading an Informational Text: A Closer Look at Words (15 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Sketching (5 minutes)4. Homework<ol style="list-style-type: none">A. Continue reading your independent reading book for this unit.	<ul style="list-style-type: none">• Students continue to work in expert groups to closely reread their Web page about their expert group animal. They will reference their Expert Animal Group research journal (see Lesson 2 Teaching Notes). This is a continuation of the work they started with these Web pages in Lesson 2. After their close reading, students use their compilation of ideas from their Web Page research guide to write a summary about their Web page. This work will prepare them for the Mid-Unit 2 Assessment.• Students also work with their expert animal groups to define unknown vocabulary words from their Web page.• Since students have experience with summarizing and because the four expert groups will use different Web pages, the teacher will not be able to support them through this research as intensively as in the Unit 1 lessons. It is expected that, because students have had practice with this process and because they can rely on their partners for help, they will be able to work more independently. If necessary, the teacher may wish to pull a small group of students to provide additional support.• In the Closing, students work to sketch their expert group animal and add a label or caption using one of the vocabulary words they identified and defined in Work Time C. Students will continue to return to these sketches throughout the unit.• In advance: Prepare the technology for Web page research.• Post: What Do Researchers Do? and Close Readers Do These Things anchor charts, learning targets.



Lesson Vocabulary	Materials
	<ul style="list-style-type: none">• Entrance ticket (one per student)• What Do Researchers Do? anchor chart (begun in Unit 1, Lesson 2)• Close Readers Do These Things anchor chart (begun in Module 1, Unit 1, Lesson 3)• Web Page research guide (pages 2-8 of Expert Group Animal research journal)• Expert Group Animal research journals (from Lesson 2; one per student and one to display)• Computer (one per pair of students)• Equity sticks• Vocabulary Strategies anchor chart (begun in Unit 1, Lesson 2)• Expert Group Animal glossary (page 13-14 of Expert Group Animal research journal)• Animal Defense Mechanisms Word Wall (from Unit 1, Lesson 3)• Blank Word Wall cards (three index cards for each expert group)• Sketch page (page 12 of Expert Group Animal research journal)



Opening	Meeting Students' Needs
<p>A. Engaging the Reader: Entrance Ticket (5 minutes)</p> <ul style="list-style-type: none">• Distribute entrance tickets and explain that students will use the What Do Researchers Do? anchor chart to set a goal for today's lesson as a scientist.• Ask them to complete the entrance ticket.• Circulate and support as needed. If necessary, prompt students by asking questions like:<ul style="list-style-type: none">* "What's something on the anchor chart that has been difficult for you during this module?"• Collect entrance tickets.	<ul style="list-style-type: none">• Using entrance tickets allows you to get a quick check for understanding of the purpose for this module and instruction can be adjusted or tailored to students' needs during the lesson or before the next lesson.
<p>B. Review Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Direct students' attention to the learning targets and read them aloud:<ul style="list-style-type: none">* "I can make inferences based on information from pictures and text from an online source."* "I can support my inferences with details and examples from pictures and text from an online source."* "I can find the meanings of unfamiliar words to help me better understand a text."* "I can write a summary paragraph about my animal after closely reading a text."• Tell students that today they will continue to practice making inferences, determining the meaning of unfamiliar words, and summarizing using their Web page from Lesson 2.• Review the learning targets and clarify as necessary.	<ul style="list-style-type: none">• Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. Close Read: Using a Web page to Research the Expert Group Animal (15 minutes)</p> <ul style="list-style-type: none">Point out the Close Readers Do These Things anchor chart and remind students that they will be doing all of these things to closely read their expert group Web page:<ul style="list-style-type: none">Read small chunks of text slowly and think about the gist.Reread each passage one sentence at a time.Underline things that you understand or know about.Circle or underline words that you do not know.Talk with your partners about all of your good ideas.State the gist or message of the paragraph in the margin.Listen to the questions:<ul style="list-style-type: none">Go back to the text to find answers to questions.Talk with your partners about the answers you find.Invite students to open to their Web Page research guide in their Expert Group Animal research journals and move as necessary to sit with their partners from the previous lesson.Ask them to open their web browser on their computer and type the Web page URL at the top of their research guide into the browser's address bar. Remind students that they have been using this Web Page research guide and to help them learn and record notes about their expert group animal.Use equity sticks to call on a student to read the focus task at the top of the research guide:<ul style="list-style-type: none">* "Describe your expert group animal."Remind students that they should keep this question in mind while they work and that they will have a chance to answer it during this lesson.Using the Web Page research guide, invite students to continue rereading the remainder of their expert group's Web page, using Think-Pair-Share and discussing the prompts with their partner. They should begin where they left off in Lesson 2, at the seventh row. Circulate and support as needed.	<ul style="list-style-type: none">The teacher may offer printouts of selected, shorter passages to specific groups based on the readiness and needs of the group. This provides an opportunity for students to read a complex text within the fourth-grade level span and differentiates the length of the text, not the complexity.Graphic organizers and recording forms engage students more actively and provide the scaffolding that is especially critical for learners with lower levels of language proficiency and/or learning. You may want to provide a partially filled-in graphic organizer for students who need additional supports.Some students may benefit from having a printed copy of their Web pages with key sections pre-highlighted. This will help them focus on small sections rather than scanning the whole text for answers.



Work Time (continued)	Meeting Students' Needs
<p>B. Independent Practice: Writing a Summary (15 minutes)</p> <ul style="list-style-type: none">• Remind students that both researchers and close readers write in order to process and synthesize what they have learned.• Tell them they will be writing a summary of their expert group's Web page. Remind them that they have written summaries in Unit 1 and they should use the same process. Tell students they will write their summaries on the lines on their Web Page research guides.• To prepare students for this task, ask:<ul style="list-style-type: none">* "What is a summary?"* "How is a summary paragraph usually structured?"• Listen for responses like: "A summary tells the main points of a text" and "A summary paragraph usually starts with a topic sentence that tells the main idea of the text. Next are sentences that share details that support the main idea of the text, and it ends with a concluding sentence that sums up the paragraph."• Tell students that their summaries should follow this structure. Remind them that they kept track of the main idea of sections of their Web page on their research guides using red colored pencils. Ask:<ul style="list-style-type: none">* "How can these main ideas help you write your summaries?"• Listen for responses such as: "We can look at the main ideas of each section to help us figure out the main idea of the entire Web page."• Give students 10 minutes to write their summaries. Remind them to use the main idea and supporting details they identified in their research guides. Circulate and support as needed. Be sure to check in with those who struggled with writing a summary on the End of Unit 1 Assessment. Important elements to look for in their summaries are a topic sentence that states the main idea of their Web page and sentences that share details that support the main idea of their Web page.• After 10 minutes, invite students to share their summaries with their expert groups. While they are sharing, ask them to compare their summary to their group mates' summaries. Tell them to notice the following:<ul style="list-style-type: none">– What is the main idea each person identified in his or her summary?– What details did each person use to support his or her main idea?– Did each person identify the same main idea? Why or why not?– Did each person use the same supporting details? Why or why not?	<ul style="list-style-type: none">• Provide ELLs with a sentence starter or frame to aid in language production. For example, a sentence starter might be: "The main idea of this Web page is _____."



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• After students have a chance to share with their expert groups, bring them back together whole class. Ask:<ul style="list-style-type: none">* “Did each person identify the same main idea in his or her summary? Why or why not?”• Listen for responses such as: “Yes, because the main idea of the text doesn’t change from person to person depending on who reads it—it is always the same.”• Ask:<ul style="list-style-type: none">* “Did each person use the same supporting details? Why or why not?”• Listen for responses like: “No, some details were different, because you don’t include all of the details from a text in a summary and each person chose different ones to support the main idea he or she identified.”	



Work Time (continued)	Meeting Students' Needs
<p>C. Rereading an Informational Text: A Closer Look at Words (15 minutes)</p> <ul style="list-style-type: none">• Explain that students will now reread their expert group text and practice figuring out the meaning of challenging words. Point out on the Close Readers Do These Things anchor chart that close readers read and reread texts many times in order to deeply understand it.• Review the Vocabulary Strategies anchor chart (from Unit 1, Lesson 2) and use equity sticks to call on students to read the strategies listed on the chart.• Ask them to share with their expert groups:<ul style="list-style-type: none">* “What strategy do you use most often to figure out what a word means?”• Tell students that they now are going to practice some of these strategies while rereading their expert group text to determine the meaning of some challenging words.• Explain that they will choose at least three words in bold in their Web Page research guides to define and record in their Expert Group Animal glossary on pages 13-14 of their Expert Group Animal research journals. Remind students that they did this in their Animal Defenses research journal for Unit 1.• Invite students to open to the Expert Group Animal glossary in the back of their Expert Group Animal research journals. Ask:<ul style="list-style-type: none">* “What did we do when recording a word in the glossary of our Animal Defenses research journals?”• Listen for responses like: “We found the word we were defining in the glossary, then wrote the definition, then wrote the vocabulary strategy we used to determine the meaning of that word, and then drew a quick sketch or diagram showing what that word means.”• Explain that the only difference with this glossary is that these glossaries are blank, unlike those in Unit 1, where the words were typed. Explain that in this unit students will choose their own words to add to the glossaries in their Expert Group Animal research journals. Tell students that because of this, their words for this glossary will not be in alphabetical order since they will add words as they research.	<ul style="list-style-type: none">• Asking students to identify challenging vocabulary helps them monitor their understanding of a complex text. When they annotate the text by circling these words, it can also provide a formative assessment for the teacher.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Post and review these directions with students:<ul style="list-style-type: none">– Find the meaning of at least three words in bold in your Web Page research guide.<ol style="list-style-type: none">1. With your partner, determine the meaning of at least three words from your expert group Web page.2. Write each word and its definition, the strategy you used to figure out the meaning, and a sketch representing the word.3. Reread the text with your group.4. Discuss these questions: How has your understanding of these words changed? Which words are still confusing for you and why?• If necessary, review Steps 1 and 2 briefly by saying something like:<ul style="list-style-type: none">* “Let’s review how we did this in Unit 1 with the word ‘predator.’ First we flipped through the glossary until we found it. Remember that with this science journal, we’ll just write it in the first available row. Then we wrote the definition of the word. We figured out that it meant an animal that lives by killing and eating another animal, so that’s what we wrote in the Definition box. Then we thought about what vocabulary strategy we used to figure out the meaning of that word. We read on in the article and did some inferring and figured out what it meant. So I wrote ‘reading on in the text and infer’ in the Vocabulary Strategy I Used to Learn This Word box. The last thing we did was a quick sketch showing what this word meant. I drew a sketch of an armadillo and a jaguar, since that was an example from the article, and I drew an arrow pointing to the jaguar, since that’s the predator in the sketch.”• Give students 10 minutes to find at least three words from their texts, record their definitions and strategy used, draw sketches, and discuss their understanding.• Circulate and support pairs as needed. If necessary, ask questions such as:<ul style="list-style-type: none">* “How did you figure out the meaning of that word?”* “Are there any clues in the article that can help you figure out what that word means?”• Listen for students to discuss the meanings of the words and use strategies from the Vocabulary Strategies anchor chart when determining the meanings.• Cold call groups to share words they added to their glossaries and visuals/notes for each word. Clarify definitions as necessary.• Point out the Animal Defense Mechanisms Word Wall. Remind students that the Word Wall has five sections—one for general animal defense mechanisms that they used in Unit 1, and one for each of the four expert group animals. Tell students that they will now start using the expert group animal sections of the Word Wall.	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Distribute three blank Word Wall cards to each expert group.• Invite groups to write the words they added to their glossary on their Word Wall cards.• Ask each group to designate one representative to bring their cards and post them to their group's section of the Word Wall.	
Closing and Assessment	Meeting Students' Needs
<p>A. Sketching (5 minutes)</p> <ul style="list-style-type: none">• Focus students' attention and invite them to turn to the Sketch page on page 12 in their Expert Group Animal research journals and display a copy with the document camera.• Explain to students that this page is to help them think about their animal's characteristics and practice drawing for their illustrations for their performance task.• Ask students:<ul style="list-style-type: none">* What do you notice about the criteria for these sketches?• Listen for students to notice that it is based on their research; it is realistic.• Explain to students that these sketches are a visual way to show their knowledge about their animal and its defense mechanisms. Reassure them that the purpose is not have the most beautiful or artistic drawing, but one that communicates important information about their animal (what it looks like, where it lives, how it protects itself).• Tell students that you would like them to do a quick sketch for their first draft from an image on their Web page to help them with the details of their sketch with their pencils.	<ul style="list-style-type: none">• Varying the methods of response for students makes the task accessible for all. By sketching, some students may be able to convey understanding of the content that they may not be able to convey in other ways.• Consider displaying a few color photos for each expert group for students to refer to as they practice sketching through out the unit.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Finish your first draft sketch and write a caption using at least one vocabulary word from your glossary.	



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 3

Supporting Materials



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Entrance Ticket:

What Do Researchers Do?

Name:

Date:

Using the What Do Researchers Do? anchor chart, set a goal for today's lesson. What will you try do as a researcher that has been difficult for you in other lessons? Be specific. Give an example to support your response.



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 4

Reading Informational Texts: Researching Expert Group Animals



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

I can explain what a text says using specific details from the text. (RI.4.1)
I can make inferences using specific details from the text. (RI.4.1)

Supporting Learning Target

- I can make inferences based on information from pictures and text.
- I can support my inferences with details and examples from pictures and texts.
- I can find the meanings of unfamiliar words to help me better understand a text.

Ongoing Assessment

- Expert Group Animal Defense Mechanisms: KWL chart
- Research note-catcher



Agenda	Teaching Notes
<ol style="list-style-type: none">Opening<ol style="list-style-type: none">Engaging the Reader: Jigsaw (10 minutes)Review Learning Targets (5 minutes)Work Time<ol style="list-style-type: none">Identifying Research Sources (15 minutes)Researching the Expert Group Animal (25 minutes)Closing and Assessment<ol style="list-style-type: none">KWL: Expert Group Animal (5 minutes)Homework<ol style="list-style-type: none">Expert group text vocabulary.	<ul style="list-style-type: none">This lesson opens with a Jigsaw activity, in which students learn about the other expert groups' animals.Similar to Lesson 1, Work Time is broken up into two sections: teacher modeling and guided practice. Students use the Research note-catcher and their Expert Group Animal research journals to identify which sources they will use for their research. Then, they closely read targeted sections of those identified sources to research how their animal's body and behaviors help it to survive. Students do this work in their expert groups, and their findings will help them write the informational page of the performance task.This lesson arc differs from previous research students have done because they are self-identifying texts (and sections of these texts) to use in their research rather than reading Web-based texts assigned to their group.The only expert group that will use <i>Venom</i> for this part of the research is the group researching the monarch butterfly. Since there is only one copy of this text per class, this expert group can use the text by having one student read it aloud while the rest of the group takes notes.Recall that the gazelle was assigned to students who generally need extra support with reading and research tasks. The gazelle's defense mechanisms should be identified for these students to provide this extra scaffold. You may choose to assign the defense mechanisms for other expert groups, as well, based on student need.The research completed in Work Time B may take more than 25 minutes; you may wish to have students do the Jigsaw activity at a different time in the day to allow for more time for research during the lesson itself. Students will have an opportunity to continue researching in Lesson 5.Review: Jigsaw protocol (see Appendix).Post: Performance Task and Close Readers Do These Things anchor charts; learning targets.



Lesson Vocabulary	Materials
	<ul style="list-style-type: none">• Equity sticks• Performance Task anchor chart (begun in Unit 1, Lesson 1)• Expert Group Animal research journals (from Lesson 2; one per student and one to display)• Close Readers Do These Things anchor chart (begun in Module 1, Unit 1, Lesson 3)• Research note-catcher (pages 9-11 of Expert Group Animal research journal)• Research note-catcher (answers; for teacher reference; one per expert group animal)• <i>Venom</i> (see Teaching Notes)• <i>Animal Behavior: Animal Defenses</i> (book; from Unit 1, Lesson 5; one per student and one to display)• “Award-Winning Survival Skills” (from Unit 1, Lesson 2; one per student and one to display)• Millipede Research note-catcher (one for modeling)• Millipede Research note-catcher (answers, for teacher reference)• Expert Group Animal Defense Mechanisms: KWL chart (page 1 of Expert Group Animal research journal)



Opening	Meeting Students' Needs
<p>A. Engaging the Reader: Jigsaw (10 minutes)</p> <ul style="list-style-type: none">• Explain that students will use the Jigsaw protocol to “meet” the other animals being studied by the other expert groups. Clarify the protocol as necessary.• Invite students to gather into Jigsaw groups of four, made up of one person from each expert group.• Ask students to describe their expert group animal to their Jigsaw group, giving each “expert” a chance to share. Remind them to use details from their research so far to support their answers.• Refocus students whole group. Use equity sticks to call on them to describe one of their Jigsaw group mates’ animal.	
<p>B. Review Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Remind students of the module’s guiding question:<ul style="list-style-type: none">* “How do animals’ bodies and behaviors help them survive?”• Invite them to give a thumbs-up if they can answer this question with an example of how their expert group animal uses its body or behaviors to survive, and a thumbs-down if they cannot.• Direct students’ attention to the learning targets. Read them aloud, pausing after each to ask for a thumbs-up if students are clear on what they will be expected to do, a thumbs-sideways if they understand part but not all of what to do, and a thumbs-down if they are very unsure about what they should do.<ul style="list-style-type: none">* “I can make inferences based on information from pictures and text.”* “I can support my inferences with details and examples from pictures and texts.”* “I can find meanings of unfamiliar words to help me better understand a text.”• Explain that students will begin reading a new text closely to learn about their expert group animal’s defense mechanisms.	<ul style="list-style-type: none">• Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. Identifying Research Sources (15 minutes)</p> <ul style="list-style-type: none">• Display the Performance Task anchor chart and remind students that there are two parts to the performance task. They will complete the first part, an informational page about their expert group animal, in this unit. The second part, a narrative featuring their expert group animal, will be completed in Unit 3.• Remind students that they need to research to learn more about their expert group animal before they can begin writing about the animal for the performance task.• Ask:<ul style="list-style-type: none">* “What does it mean to <i>research</i>?”• Listen for responses such as: “It means to ask a question and then look for the answer in different sources like books, articles, or videos.”• Ask:<ul style="list-style-type: none">* “What is the question we are trying to answer in our research?”• Listen for students to share the focus question for the informational page: “How does my expert group animal use its body and behaviors to help it survive?”• Use equity sticks to call on a student to read the second bullet point on the Performance Task anchor chart aloud:<ul style="list-style-type: none">* “An informational page with a physical description of your animal, its habitat, its defense mechanisms, and predators”• Ask students to turn and talk with a partner. Encourage them to talk with someone who is not in their expert group. Ask:<ul style="list-style-type: none">* “What information have you learned about your expert group animal so far that will help you to do this? Share some facts with your partner.”• Listen for students to share details about what their animal looks like, where it lives, and its predators.• Invite them to take their Expert Group Animal research journals and join their expert groups to discuss:<ul style="list-style-type: none">* “Based on the anchor chart, what kind of information do you still need to research?”• Listen for them to notice that they need to learn more about their animal’s defense mechanisms.• Explain that, as in Lessons 2 and 3, students will reread new texts several times over the next two lessons to learn about their expert group animal’s defense mechanisms.	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Point out the Close Readers Do These Things anchor chart and remind students that they will be doing all of these things to read closely in the next two lessons.• Ask expert groups to discuss:<ul style="list-style-type: none">* “What is one thing you are going to practice today when you closely read your group’s text?”• Listen for responses like: “I’m going to be sure I underline things that I understand in the text.”• Invite students to turn to the Research note-catcher on pages 9-11 in their Expert Group Animal research journal. Explain that they will use this note-catcher to help them think and take notes about their expert group’s text.• Use equity sticks to call on a student to read the focus question at the top of the Research note-catcher:<ul style="list-style-type: none">* “How does your expert group animal use its body or behaviors to help it survive?”• Tell students that they should keep this question in mind while they work. Explain that they are going to take their research skills to the next level; before they start researching, they will practice using text features to efficiently find information about their expert group animals. Tell students they will use the Web pages and anchor texts from this module for their research.• Ask:<ul style="list-style-type: none">* “What texts can you use for further research of your expert group animal?”• Listen for responses such as: “Venom, Animal Behavior: Animal Defenses, or ‘Award-Winning Survival Skills.’”• Ask:<ul style="list-style-type: none">* “What text features are in these resources that will help us to locate information about our expert group animals?”• Listen for students to identify text features such as the table of contents, the index, headings, or photographs. If necessary, prompt them by reminding them how you found information about the millipede in Unit 1. Model with the Millipede Research note-catcher (For Modeling) as necessary.• Review the protocol for working in a small group by asking:<ul style="list-style-type: none">* “What does it look like or sound like when working in a small group with your peers?”• Listen for responses like: “Wait my turn to speak, so I am heard,” “Don’t shout/speak too loudly,” “Make sure everyone gets a turn to speak,” “No one person does most/all of the speaking,” and “Use information from the text to support my ideas.”	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Turn students' attention back to the Research note-catcher. Invite expert groups to complete the task in the first row:<ul style="list-style-type: none">* "Turn to the index of <i>Animal Behavior: Animal Defenses</i>. Write the page numbers that have information about your expert group animal."• If necessary, model briefly using the millipede as an example using the Millipede Research note-catcher (answers, for teacher reference). Answer any clarifying questions.• Repeat with the second row of the Research note-catcher, answering any clarifying questions. Be sure to note for students that their expert group animal may not be mentioned in <i>Venom</i> or "Award-Winning Survival Skills," and they should write "no" if that is the case for their animal.	



Work Time (continued)	Meeting Students' Needs
<p>B. Researching the Expert Group Animal (25 minutes)</p> <ul style="list-style-type: none">• Explain that students will now work with their expert groups to research the answer to the focus question (“How does my expert group animal use its body and behaviors to help it survive?”) by using the resources they identified in Work Time A.• Guide students in using the third row of the Research note-catcher with the prompt:<ul style="list-style-type: none">* “Skim the pages you noted above. List the defense mechanisms your expert group animal uses.”• Model doing this with the millipede, turning to page 53 of <i>Animal Behavior: Animal Defenses</i>. As you model, be sure to:<ul style="list-style-type: none">– Use the page numbers recorded in Work Time A.– Skim the text by starting with looking at the pictures and captions and looking for the word “millipede.”– Record the defense mechanism in the appropriate box on the note-catcher.• Invite students to complete the third row of the Research note-catcher with their expert groups.• After about 10 minutes, bring students back together. Say something like:<ul style="list-style-type: none">* “Now that you have a list of defense mechanisms for your expert group animal, you’ll be able to return to the texts and read the pages you noted in Row 1 more closely to learn exactly how your expert group animal uses these defense mechanisms.”• Direct students’ attention to the Performance Task anchor chart and point out that they will be writing about two defense mechanisms. Explain that their expert group animal may use many defense mechanisms to protect itself, but they will only deeply research two defenses.• Invite students to turn to the second and third pages of the Research note-catcher (page 10 and 11 in their research journals). Explain that they will use these pages to collect notes on the two defense mechanisms they will research more closely.• They may use one or both of these pages depending on how many texts they identified on the first page of their Research note-catchers.• Ask students to read over the second page of the note-catcher. Answer any clarifying questions.	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Model how to complete table for notes on the second page of the Research note-catcher with the Millipede Research note-catcher, turning to page 53 of <i>Animal Behavior: Animal Defenses</i>. As you model, be sure to:<ul style="list-style-type: none">– Notice the heading in the upper-right corner of the page of <i>Animal Behavior: Animal Defenses</i> and think aloud about what it means, why it is there, and how it helps you as a reader.– Use the chapter title and headings to frame what you will be rereading.– Reread the page, looking for information about millipede defense mechanisms and writing details on the Millipede Research note-catcher (see the supporting materials for possible notes).– Think aloud about how the defense mechanism helps the millipede survive.– Note the page number in the appropriate column on the note-catcher.• Using the Research note-catcher, guide students through reading the parts of their texts that they identified in Work Time A, inviting them to Think-Pair-Share and discuss with their expert groups. Circulate and support groups as needed.• After about 7 minutes, bring students back together whole group. Explain that they will continue researching in the next lesson.	<ul style="list-style-type: none">• Some students may benefit from having key sections pre-highlighted in their texts. This will help them focus on small sections rather than scanning the whole text for answers.• Note: Students researching the Springbok gazelle will only gather information from one text in their Research note-catchers, <i>Animal Behaviors: Animal Defenses</i>.



Closing and Assessment	Meeting Students' Needs
<p>A. KWL: Expert Group Animal (5 minutes)</p> <ul style="list-style-type: none">• Invite students to turn to the Expert Group Animal Defense Mechanisms: KWL chart on page 1 of their Expert Group Animal research journals. Remind them that researchers always reflect on and record what they've learned.• Invite students to Think-Pair-Share. Ask:<ul style="list-style-type: none">* "Were any of the questions from your KWL chart answered in the text that you read today?"* "Did you confirm any of the information you thought you knew?" (Instruct students to place a check mark next to these facts on their KWL charts.)* "What new information did you learn from your section of the text?"• Tell students to record the answers to any questions they wrote in the W column, in the I Learned section, in the Information column. Include the name of the book and page number in the Source column.• Tell students to write one new piece of information they learned from the book in the I Learned section, as well.	
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Reread the sections of the texts that your expert group used in this lesson. While you read, write down words that you do not know the meaning of. Choose one word you wrote down and try to figure out its definition. Write down the definition and how you figured out what the word meant.	



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 4

Supporting Materials



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Millipede Research Note-Catcher:
(For Modeling)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the page number(s) that have information about your expert group animal:

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the name of the section that has information about your expert group animal:

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:



Millipede Research Note-Catcher:
(For Modeling)

Source: _____

Page	Details about the Defense Mechanism	How This Helps the Animal Survive
	<ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	

Millipede Research Note-Catcher:
(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

53
56–57
64–65
70
72
99

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the page number(s) that have information about your expert group animal:

yes, page 15

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the name of the section that has information about your expert group animal:

no

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

rolling into a ball
hard exoskeleton
emits poison
runs away



Millipede Research Note-Catcher:
(Answers, for Teacher Reference, continued)

Source: *Animal Behavior: Animal Defenses*

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive
53	Pill millipedes roll up when in danger.	Their hard exoskeleton protects millipedes' bodies from predators. They look like little pebbles so the predator ignores them.
56	Pill millipedes ooze sticky droplets when attacked.	The droplets stick to predators. While the predator tries to clean off the fluid, it gets stickier and the millipede escapes.
56	Some millipedes ooze droplets that release poison.	The poison can paralyze or kill the millipede's predators.
64–65	Millipedes give off strong odors if they are disturbed. The smell comes from fluids that ooze from pores in the millipede's sides.	The scent sends the predators running away.



Millipede Research Note-Catcher:
(Answers, for Teacher Reference)

Source: *Venom*

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive
15	have a tough exoskeleton	protects its body from predators
15	Rolling into a tight, hard ball is their main defense.	Their hard exoskeleton protects their bodies from predators. They look like little pebbles, so the predator ignores them.
15	The yellow-spotted millipede emits acid to repel predators.	The acid keeps the predators away and can hurt the predators.



Expert Group Animal Research Journal:

Three-Banded Armadillo

Research Note-catcher

(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

49–51

53

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the page numbers that have information about your expert group animal:

no

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the name of the section that has information about your expert group animal:

yes, “Best Special Effect: The three-banded armadillo”

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

bony armor
roll into a ball



Expert Group Animal Research Journal:
Three-Banded Armadillo
Research Note-catcher
(Answers, for Teacher Reference)

Source: *Animal Behaviors: Animal Defenses*

Page	Details about the Defense Mechanism <ul style="list-style-type: none"> • How does the animal use its body to survive? • How does the animal use its behavior to survive? 	How This Helps the Animal Survive
49	Scientists call the armor carapace.	The armor is hard and protects the armadillo's body if a predator attacks it.
50	Carapace is made up of bony plates arranged in bands around the armadillo's body.	The armor is hard and protects the armadillo's body if a predator attacks it.
50	The plates are covered by tough skin.	The armor is hard and protects the armadillo's body if a predator attacks it.
50	Each band is separated from the others by a band of skin.	This lets the armadillo flex its body.
50	The three-banded armadillo is the only armadillo that can roll itself up so tightly that it looks like a scaly croquet ball.	—can roll away —natural hiding spot —“can peek out and see if its attacker is still there. If the attacker comes close to investigate, the armadillo quickly slams its carapace shut again—an action that sometimes nips the attacker's nose.”



Expert Group Animal Research Journal:
Three-Banded Armadillo
Research Note-catcher
(Answers, for Teacher Reference)

Source: “Award-Winning Survival Skills”

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive
9	Three hinged bands give them the flexibility to roll themselves up. They are the only armadillos that can curl themselves into completely enclosed balls.	When they’re rolled into a ball, the shell protects their bodies. It’s also difficult for the predator to crack open the armadillo.
10	The shoulder and haunch plates aren’t attached on the sides to the armadillos’ skin, so there’s room inside to fit a head, legs, and tail.	Rolling into a ball lets the armadillo’s armor protect its body and also its head, legs, and tail, which aren’t covered by the armor otherwise.
10	Shells are good insulation.	They keep the armadillos warm in the winter.



Expert Group Animal Research Journal:

Springbok Gazelle

Research Note-catcher

(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.

2. Write the page numbers that have information about your expert group animal:

7–9

64

114

1. Turn to the index of *Venom*.

2. Can this resource help you answer the focus question? Write “yes” or “no.”

3. If “yes,” write the page numbers that have information about your expert group animal:

no

1. Use the text features to skim *Award-Winning Survival Skills*.

2. Can this resource help you answer the focus question? Write “yes” or “no.”

3. If “yes,” write the name of the section that has information about your expert group animal:

no

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

horn

keen senses

speed

avoiding being seen

stotting or stamping

running away

forming mixed groups when traveling



Expert Group Animal Research Journal:
Springbok Gazelle
Research Note-catcher
(Answers, for Teacher Reference)

Source: *Animal Behavior: Animal Defenses*

Page	Details about the Defense Mechanism <ul style="list-style-type: none"> • How does the animal use its body to survive? • How does the animal use its behavior to survive? 	How This Helps the Animal Survive
7	“The gazelles bounce like pogo sticks. They spring high in the air with their backs arched and legs stiff. They land on all fours, and then leap again.”	This lets the predator know: “We have seen you, so do not bother to chase us—we are strong and healthy and can outrun you.”
7	They run up to 40 miles an hour.	They can run this fast longer than predators, which get tired out and give up chasing the gazelle.
8	Fawns have tawny coats.	They blend in with the grass so the predator doesn’t see them.
8	Fawns can lie still for a long time.	The grass doesn’t move around them, so the predator doesn’t notice them.
9	“Gazelle fawns use the most basic form of self-defense: avoid being noticed. Like the fawns, many animals evade detection by hiding, freezing, or blending in with their habitat. This is called crypsis.”	The fawns blend in with their habitat so the predator doesn’t notice them.
65	The gazelle stamps its foot or stots.	The predator loses its chance to launch a surprise attack. This is also a form of pursuit deterrence—telling a predator that it is strong and healthy, so it would be a waste of time to chase it.



Expert Group Animal Research Journal:

Mimic Octopus

Research Note-catcher

(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

mimic octopus: 97

octopuses:

19

24

28–29

33–34

37

87

97

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the page numbers that have information about your expert group animal:

no

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the name of the section that has information about your expert group animal:

yes, “Best Impersonator: The mimic octopus”

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

changes color to blend in

changes texture of skin

mimics other animals

jets away (swimming away quickly)

changes color to scare away the predator

loses arms

squirts ink

uses venom



Expert Group Animal Research Journal:
Mimic Octopus
Research Note-catcher
(Answers, for Teacher Reference)

Expert Group Animal: Mimic Octopus

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive
19	can change color in less than one second	can change color to match the background
19	can change texture of skin	texture resembles sand or stones, so it blends in
24	escapes predators by jetting: filling body with water and pushing it out through a tube-like body part called a siphon	can get away quickly and in any direction; squirts ink to hide or confuse its enemy
33–34	releases arms	arm distracts the predator and lets the octopus escape
87	uses venom if stepped on or attacked	hurts enemy with the venom
97	mimics other animals <ul style="list-style-type: none">–easily changes color and shape of body–imitates dangerous sea creatures–pulls arms together and moves like the sole–spreads out arms and lets them dangle to look like a lionfish–changes stripes to black and yellow and tucks body to look like a sea snake	imitates dangerous sea creatures



Expert Group Animal Research Journal:
Mimic Octopus
Research Note-catcher
(Answers, for Teacher Reference)

Source: “Award-Winning Survival Skills”

Page	Details about the Defense Mechanism <ul style="list-style-type: none">How does the animal use its body to survive?How does the animal use its behavior to survive?	How This Helps the Animal Survive
10	twists its body and changes its stripes to look like the poisonous lionfish	The animals stay away from the mimic octopus when it looks like that because they think it's a lionfish.
10	can bulge its eye sockets and tentacles to look like a blenny species	Blenny species are very common, so the predators aren't interested in them.
11	is the only animal that can mimic more than one animal <ul style="list-style-type: none">–has a flexible body–has skin cells called chromatophores that have different colored pigments, so it can change the color of its skin	There's nowhere for the octopus to hide because its habitat is the seafloor, so this helps it hide in plain sight.



Expert Group Animal Research Journal:

Monarch Butterfly

Research Note-catcher

(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

56
60
68
105–106

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the page numbers that have information about your expert group animal:

yes, 21–22

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write “yes” or “no.”
3. If “yes,” write the name of the section that has information about your expert group animal:

no

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

warning colors
poison
mimicry



Expert Group Animal Research Journal:
Monarch Butterfly
Research Note-catcher
(Answers, for Teacher Reference)

Source: *Animal Behavior: Animal Defenses*

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive
56	The poison tastes bad.	The predator will drop the butterfly once it tastes the poison because it tastes bad, and the butterfly then escapes.
56	The poison doesn't kill the monarch's enemy, but it makes the enemy sick.	The predator remembers that it made it sick and avoids catching monarchs again.
60	The white, black, and yellow caterpillar of the monarch butterfly is poisonous.	The bright colors warn predators that the monarch is poisonous, so they stay away.
68	Monarch butterflies get their poison from eating milkweed plants.	Monarchs stock up on the poison when they're caterpillars, and the poison stays in them after they turn into butterflies. The poison doesn't harm the caterpillars, but it is harmful to many other animals, including the monarchs' predators.
105	The monarch is orange, black, and white.	The bright colors warn predators that the monarch is poisonous, so they stay away.



Expert Group Animal Research Journal:
Monarch Butterfly
Research Note-catcher
(Answers, for Teacher Reference)

Source: *Venom*

Page	Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive
20	“These colors and patterns are aposematic—they warn enemies that these critters are venomous.”	The bright colors warn predators that the monarch is poisonous, so they stay away.
21	“Birds and other beings that taste this butterfly learn from its Halloween colors that they don’t want a second bite.”	The predators learn to stay away from the butterflies because of their colors.
21	“The poison is generally not strong enough to kill predators. It makes more sense for the survival of a species to sicken, not slaughter enemies so they’ll learn to avoid this prey in the future.”	Predators can learn to avoid a certain type of animal because they know it will make them sick.



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 5

Reading Informational Texts: Researching Expert
Group Animals and Collecting Vocabulary



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

I can explain what a text says using specific details from the text. (RI.4.1)
I can make inferences using specific details from the text. (RI.4.1)
I can accurately synthesize information from two texts on the same topic. (RI 4.9)

Supporting Learning Target

- I can make inferences based on information from pictures and text.
- I can support my inferences with details and examples from pictures and texts.
- I can find the meanings of unfamiliar words to help me better understand a text.

Ongoing Assessment

- Research note-catcher
- Expert Group Animal Defense Mechanisms glossary



Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Engaging the Reader: Sketching (8 minutes)B. Review Learning Targets (2 minutes)2. Work Time<ol style="list-style-type: none">A. Researching the Expert Group Animal (30 minutes)B. Rereading an Informational Text: A Closer Look at Words (15 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Sharing (5 minutes)4. Homework<ol style="list-style-type: none">A. Continue reading your independent reading book for this unit.	<ul style="list-style-type: none">• In this lesson, students spend the majority of Work Time continuing their research on their expert group animal's defense mechanisms using the Research note-catcher started in Lesson 4. Similar to Lesson 4, this work is completed in their expert groups.• During Work Time B, students switch gears to focus on vocabulary words from their research texts. Words for each expert group have been identified, but additional words may be added based on student needs. You may also wish to have students add words identified for homework after Lesson 4.• In advance: Post: Vocabulary Strategies and Close Readers Do These Things anchor charts; learning targets.



Lesson Vocabulary	Materials
herd (7), stotting (8), resemble (19), dispose (33), armor (49), flex (50), burrows, investigate, warning colors (60), mimic (97), imitate, common (105), migrate (114)	<ul style="list-style-type: none">• Expert Group Animal research journals (from Lesson 2; one per student and one to display)• Sketch page (page 12 of Expert Group Animal research journal)• Equity sticks• Research note-catcher (pages 9-11 of Expert Group Animal research journal)• <i>Animal Behavior: Animal Defenses</i> (Unit 1, Lesson 5; one per student and one to display)• <i>Venom</i> (book; one for the teacher)• “Award-Winning Survival Skills” (from Unit 1, Lesson 2; one per student and one to display)• Close Readers Do These Things anchor chart (begun in Module 1, Unit 1, Lesson 3)• Vocabulary Strategies anchor chart (begun in Unit 1, Lesson 2)• Expert Group Animal glossary (pages 13-14 of Expert Group Animal research journal)• Animal Defense Mechanisms Word Wall (from Unit 1, Lesson 3)• Blank Word Wall cards (three index cards for each expert group)



Opening	Meeting Students' Needs
<p>A. Engaging the Reader: Sketching (8 minutes)</p> <ul style="list-style-type: none">• Invite students to get out their Expert Group Animal research journal and turn back to their sketch on their Sketch page on page 12.• Ask them to start a second draft sketch. Ask them to add details to the sketch about their expert group animal's defense mechanisms based on their research in Lesson 4.• Circulate and support as needed. If necessary, prompt students by asking:<ul style="list-style-type: none">* "What is a defense mechanism your animal uses to survive?"* "How can you show a defense mechanism of your animal in a sketch?"• Invite students to share their sketch with a partner who is not in their expert animal group.• Use equity sticks to cold call students, asking them to share one detail their partner included in his or her sketch.	<ul style="list-style-type: none">• Varying the methods of response for students makes the task accessible for all. By sketching, some students may be able to convey understanding of the content that they may not be able to convey in other ways.
<p>B. Review Learning Targets (2 minutes)</p> <ul style="list-style-type: none">• Direct students' attention to the learning targets and read them aloud:<ul style="list-style-type: none">* "I can make inferences based on information from pictures and text."* "I can support my inferences with details and examples from pictures and texts."* "I can find the meanings of unfamiliar words to help me better understand a text."• Remind students of the purpose of their research about their expert group animals: They will eventually write an informative piece and narrative about the animal's defense mechanisms.• Tell students that today they will continue reading texts that give them information about their animal's defense mechanisms. Remind them that proficient readers always read a text several times when gathering new information on a topic. Today, they will reread the text several times to collect information to add to their research notes and to examine the meanings of words.	<ul style="list-style-type: none">• Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. Researching the Expert Group Animal (30 minutes)</p> <ul style="list-style-type: none">• Invite students to open to their Research note-catchers in their Expert Group Animal research journals and to retrieve their copies of <i>Animal Behavior: Animal Defenses, Venom</i>, and/or “Award-Winning Survival Skills.” Remind students that they have been using this note-catcher to help them research and take notes about their expert group animal’s defense mechanisms.• Use equity sticks to call on a student to read the focus question at the top of the Research note-catcher:<ul style="list-style-type: none">* “How does your expert group animal use its body and behaviors to help it survive?”• Remind students that they should keep this question in mind while they research and that they will have a chance to answer it during this lesson.• Direct students’ attention to the first page of the Research note-catcher (page 9 in their Expert Group Animal research journals), where they identified sections of <i>Animal Behavior: Animal Defenses, Venom</i>, and/or “Award-Winning Survival Skills” that would be helpful when researching their expert group animals.• Ask them to continuing working with their expert groups to reread the texts, looking for details about their animal’s defense mechanisms. Remind them that they should record their findings on the second and third of the Research note-catcher (pages 10 and 11 in their Expert Group Animal research journals).• Circulate and support as needed.	<ul style="list-style-type: none">• The teacher may offer selected shorter passages to specific groups based on the readiness and needs of the group. This provides an opportunity for students to read a complex text within the fourth-grade level span, but differentiates the length of the text, not the complexity.• Graphic organizers and recording forms engage students more actively and provide the scaffolding that is especially critical for learners with lower levels of language proficiency and/or learning. You may want to provide a partially filled-in graphic organizer for students needing more supports.• Some students may benefit from having key sections pre-highlighted in their texts. This will help them focus on small sections rather than scanning the whole text for answers.



Work Time (continued)	Meeting Students' Needs
<p>B. Rereading an Informational Text: A Closer Look at Words (15 minutes)</p> <ul style="list-style-type: none">• Explain that students will now reread the texts they just used for research to practice figuring out the meaning of challenging words.• Direct their attention to the Close Readers Do These Things anchor chart, where it says close readers read and reread texts many times to deeply understand them.• Review the Vocabulary Strategies anchor chart by using equity sticks to call on students to read the strategies listed.<ul style="list-style-type: none">– Read on in the text and infer.– Look in the glossary.– Look for a text feature that defines the word.– Look in a dictionary.– Think about parts of the word that you know.• Tell students that they now are going to practice some of these strategies while rereading their expert group texts to determine the meaning of some challenging words.• Invite students to use their homework from Lesson 4: words identified in their expert group texts that they did not know the meaning of. Explain that they will choose at least three words circled in their texts to define and record in their Expert Group Animal glossary in their Expert Group Animal research journals.• Invite students to open to the glossary starting on page 13 of their Expert Group Animal research journal. Ask:<ul style="list-style-type: none">* “How do we record words in this glossary?”• Cold call students to share out. Listen for responses like: “We write the word we are defining in the glossary, then write the definition, then write the vocabulary strategy we used to determine the meaning of that word, and then draw a quick sketch or diagram showing what that word means.”• Explain that with their expert groups, students will reread their texts to determine and record the definitions of at least three words from their research texts.• Tell students that after they do that, they will talk with their partners about their understanding of the words. Post the following directions:	<ul style="list-style-type: none">• Asking students to identify challenging vocabulary helps them monitor their understanding of a complex text. When students annotate the text by circling these words, it can also provide a formative assessment for the teacher.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">Find the meaning of at least three of the following words:<ul style="list-style-type: none">armadillo expert group: armor, flex, burrows, investigategazelle expert group: herd, stotting, migratemimic octopus: mimic, imitate, resemble, disposemonarch: warning colors, mimics, common, imitates<ol style="list-style-type: none">With your partners, determine the meaning of at least three words in your expert group text.Write each word and its definition, the strategy you used to figure out the meaning, and a sketch representing the word.Reread the text with your group.Discuss these questions: How has your understanding of these words changed? Which words are still confusing for you and why?Give students 10 minutes to find at least three words from their texts, record their definitions and the strategy used, draw a sketch, and discuss their understanding. Circulate and support as needed. If necessary, ask questions like:<ul style="list-style-type: none">* "How did you figure out the meaning of that word?"* "Are there any clues in the article that can help you figure out what that word means?"Listen for students to discuss the meanings of the words and to use strategies from the Vocabulary Strategies anchor chart when determining the meanings.Cold call groups to share words they added to their glossaries and visuals/notes for each word. Clarify the definition of each word if necessary.Focus students on the Animal Defense Mechanisms Word Wall. Remind students that the Word Wall has five sections—one for general animal defense mechanisms that they used in Unit 1, and four for the expert group animals. Tell students that they will now add more to their expert group animal sections of the Word Wall.Distribute three Blank Word Wall cards to each expert group.Invite groups to write the three words they discussed on their Word Wall cards.Ask groups to send one representative to post the group's cards to their particular section of the Word Wall.	



Closing and Assessment	Meeting Students' Needs
<p>A. Sharing (5 minutes)</p> <ul style="list-style-type: none">Partner students with classmate from a different expert group. Ask students to share with the following prompt:<ul style="list-style-type: none">* Describe your animal and its defense mechanisms to a partner. Be sure to include information about your animal's habitat, predators, and defenses. Try to use as many vocabulary words from your animal's section of the word wall as you can.Circulate and observe whether students are able to describe their animal and its defenses. Students who are unable to articulate what they have learned verbally are likely to struggle when writing about their animal and will likely need more support during the writing process in the last half of this unit.	<ul style="list-style-type: none">To support students in sharing, consider using a sentence frame similar to the following: My animal is the _____ it lives in _____. It defends itself from _____ by _____.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">Continue reading your independent reading book for this unit.	

There are no new supporting materials for this lesson.



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 6

Mid-Unit 2 Assessment: Reading and Researching the Defense Mechanisms of the Pufferfish



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

I can explain what a text says using specific details from the text. (RI.4.1)
I can make inferences using specific details from text. (RI.4.1)
I can summarize informational or persuasive text. (RI.4.2)
I can conduct a research project to become knowledgeable about a topic. (W.4.7)
I can document what I learn about a topic by taking notes. (W.4.8)
I can use a variety of strategies to determine the meaning of words and phrases. (L.4.4 a and b)

Supporting Learning Targets

- I can make inferences based on information from a text.
- I can support my inferences with details and examples from a text.
- I can summarize a text using the main idea and supporting details found in the text.

Ongoing Assessment

- Mid-Unit 2 Assessment: Reading and Researching the Defense Mechanisms of the Pufferfish
- Tracking My Progress, Mid-Unit 2 recording form



Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Engaging the Reader: Adding a Caption to Sketches (5 minutes)2. Work Time<ol style="list-style-type: none">A. Mid-Unit 2 Assessment: Reading and Synthesizing Information From Two Texts on the Pufferfish (50 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Reflecting on Learning Targets—Tracking My Progress (5 minutes)4. Homework<ol style="list-style-type: none">A. Continue reading your independent reading book for this unit.	<ul style="list-style-type: none">• In this lesson, students complete the Mid-Unit 2 Assessment. The texts and note-catchers used in the assessment will be used again by students in the End of Unit 2 Assessment. This mid-unit assessment builds toward the end of unit assessment by having students read two texts about the pufferfish and collect research notes about its defense mechanisms. In the end of unit assessment, they will use these texts and notes to write an informative page about the pufferfish. Be sure to hold on to students' copies of the text and research note-catchers so that they can be redistributed for use on the end of unit assessment in Lesson 12.• The Mid-Unit 2 Assessment contains excerpts from two texts, "Award-Winning Survival Skills" and "All Puffed Up." Students should be familiar with the excerpt from "Award-Winning Survival Skills," as that text has been read extensively in Unit 1. Even though this excerpt is not entirely new, it is used in this assessment because students will be working with the pufferfish section in a new way.• If students receive accommodations for assessment, communicate with the cooperating service providers regarding the practices of instruction in use during this study as well as the goals of the assessment.• For some students, this assessment may require more than the 50 minutes allotted. Consider providing students time over multiple days if necessary.• After the Mid-Unit 2 Assessment, students reflect on the learning targets with Tracking My Progress, Mid-Unit 2 recording form. This exercise is meant to provide them with time to formally keep track of and reflect on their own learning.• Post: Learning targets.



Lesson Vocabulary	Materials
track, reflect	<ul style="list-style-type: none">• Expert Group Animal research journals (from Lesson 2; one per student and one to display)• Sketch page (page 12 of Expert Group Animal research journal)• Mid-Unit 2 Assessment: Reading and Researching the Defense Mechanisms of the Pufferfish(one per student)• Mid-Unit 2 Assessment: Reading and Researching the Defense Mechanisms of the Pufferfish (answers, for teacher reference)• Tracking My Progress, Mid-Unit 2 recording form (one per student and one to display)

Opening	Meeting Students' Needs
<p>A. Engaging the Reader: Adding a Caption to Sketches (5 minutes)</p> <ul style="list-style-type: none">• Invite students to get out their Expert Group Animal research journal and turn back to their sketch on their Sketch page on page 12. Ask them to finish their a second draft sketch by writing a caption. Encourage students to use at least one of their vocabulary words in their caption.• Circulate and support as needed. If necessary, prompt students by asking:<ul style="list-style-type: none">* “How did you show a defense mechanism of your animal in a sketch? How will you capture this in your caption?”* “What vocabulary words from your research are you using in your caption?”• Invite students to share their sketch with a partner who is not in their expert animal group.• Use equity sticks to cold call students, asking them to share one detail their partner included in his or her sketch.	



Work Time	Meeting Students' Needs
<p>A. Mid-Unit 2 Assessment: Reading and Researching Defense Mechanisms of the Pufferfish (50 minutes)</p> <ul style="list-style-type: none">• Distribute the Mid-Unit 2 Assessment: Reading and Researching the Defense Mechanisms of the Pufferfish. Give students 50 minutes to complete it.• While students are taking the assessment, circulate to monitor their test-taking skills. This is an opportunity to analyze their behaviors while taking an assessment. Document strategies students use. For example, look for those who are annotating their texts, using their graphic organizers to take notes before answering questions, and returning to the text as they answer questions.	<ul style="list-style-type: none">• If students receive accommodations for assessment, communicate with the cooperating service providers regarding the practices of instruction in use during this study as well as the goals of the assessment.• For some students, this assessment may require more than the 50 minutes allotted. Consider providing time over multiple days if necessary.



Closing and Assessment	Meeting Students' Needs
<p>A. Reflecting on Learning Targets—Tracking My Progress (5 minutes)</p> <ul style="list-style-type: none">• Congratulate students on their hard work on the mid-unit assessment.• Distribute the Tracking My Progress, Mid-Unit 2 recording form. Remind students that successful learners keep <i>track</i> and <i>reflect</i> on their own learning. Point out that they have been doing this informally all year, during debriefs, when they consider how well they are doing making progress toward the learning targets.• Review Step 1 in the self-assessment and remind students that this is where you would like them to explain what the target means to them. For example, the first target uses the phrase “based on information from a text.” They should write what the target means in their own words by explaining what it means to infer.• Point out the second step and explain that this is similar to the thumbs-up, -sideways, or -down that they have used in previous lessons. They should also explain why they think they “need more help,” “understand some,” or are “on the way,” and give examples. Consider giving students an example such as: “I circled that I need more help, because I can’t remember what the word <i>summary</i> means.”• Ask students to complete the Tracking My Progress, Mid-Unit 2 form.• Collect these self-assessments to use as a formative assessment to guide instructional decisions during the remainder of this unit and Unit 3.	<ul style="list-style-type: none">• Developing self-assessment and reflection supports all learners, but research shows it supports struggling learners most.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Continue reading your independent reading book for this unit.	



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 6

Supporting Materials



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Mid-Unit 2 Assessment:
Reading and Researching the Defense Mechanisms of the Pufferfish

Name:

Date:

Long-Term Learning Targets Assessed:

I can explain what a text says using specific details from the text. (RI.4.1)

I can make inferences using specific details from text. (RI.4.1)

I can summarize informational or persuasive text. (RI.4.2)

I can conduct a research project to become knowledgeable about a topic. (W.4.7)

I can document what I learn about a topic by taking notes. (W.4.8)

I can use a variety of strategies to determine the meaning of words and phrases. (L.4.4 a and b)

Part 1: Read both texts for the gist. Then, reread the texts and use them to answer the questions that follow.

From “Award-Winning Survival Skills”:

“Best Action Hero: The Spiny Pufferfish”

Ordinarily, the meek spiny pufferfish (*Diodon holocanthus*) drifts slowly in its native coral-reef habitats around the world. Its round body and small fins make it a sluggish swimmer—and perfect prey. But just try to eat it, and get ready to be BLOWN AWAY! When threatened, the puffer inflates to three times its normal size. “It just swallows water until its stomach is completely full,” says biologist and pufferfish expert Ralph Turingan at the Florida Institute of Technology. How does the fish change shape? Its skin and stomach are super-stretchable. Also, it lacks a rib cage—no bones to impede an expanding stomach. Dare to swallow an uninflated puffer? “Sharks have actually died from a pufferfish inflating in their esophagus,” says Turingan. Other predators who’ve witnessed Superman in action stay clear of the Big Puffer!



Mid-Unit 2 Assessment:
Reading and Researching the Defense Mechanisms of the Pufferfish

“All Puffed Up”:

In the warm tropical ocean, there are fish of many shapes and sizes. Some are harmless vegetarians like the parrotfish. Others are dangerous predators like the tiger shark. And some fish that seem harmless are really quite dangerous.

One such fish swims slowly along. He looks like easy prey. He is the porcupine pufferfish, and his cute cartoon face hides a deadly secret. If a tiger shark or barracuda approaches, he will not try to swim away. Instead, he will quickly swallow water until he is completely full and round. This makes his spines stick out in all directions. He is now impossible to swallow. A predator could manage to sneak up and swallow him, but it would be in for another surprise because he is also toxic.

These defenses won't stop one predator, though. Mankind. In Japan, the porcupine pufferfish is considered a delicacy. The puffer is a rare and expensive food, but it is also deadly to eat if you don't know how to prepare it. Chefs in Japan have to be specially trained to remove the poisonous parts of this fish before they serve it.

Today there are no fishing nets close by and no predators in sight. This little puffer is safe. He continues to swim along, looking for a tasty crab or sea urchin to eat. He may look cute and harmless and like perfect prey, but his deadly defenses keep him quite safe.

Written by Expeditionary Learning for Instructional Purposes. Lexile 810

Sources:

<http://www.flmnh.ufl.edu/fish/Gallery/Descript/Porcupine/Porcupine.htm>

<http://animals.nationalgeographic.com/animals/fish/pufferfish/>

<http://www.bristolzoo.org.uk/porcupine-pufferfish>

<http://www.britannica.com/EBchecked/topic/482954/puffer>



Mid-Unit 2 Assessment:

Reading and Synthesizing Information From Two Texts on the Pufferfish

1. Find and reread the following sentence from Paragraph 1 of “Best Action Hero: The Spiny Pufferfish”:

“When threatened, the puffer inflates to three times its normal size.”

Which explanation is most appropriate for how the pufferfish inflates?

- a. The pufferfish fills up its stomach with air.
- b. The pufferfish fills up its stomach with water.
- c. The pufferfish fills up its spines with air.
- d. The pufferfish fills up its spines with water.

2. Which line from the text “All Puffed Up” best supports your answer for Question 1?

- a. “If a tiger shark or barracuda approaches, he will not try to swim away.”
- b. “Instead, he will quickly swallow water until he is completely full and round.”
- c. “This makes his spines stick out in all directions.”
- d. “He continues to swim along, looking for a tasty crab or sea urchin to eat.”

3. In “Best Action Hero: The Spiny Pufferfish,” the text says, “Its skin and stomach are super-stretchable.” Using your knowledge of affixes, write the definition of the word *super-stretchable* as used in the context of this sentence:



Mid-Unit 2 Assessment:
Reading and Synthesizing Information From Two Texts on the Pufferfish

4. Which line from the text best supports your answer for Question 3?
- a. "Its round body and small fins make it a sluggish swimmer—and perfect prey."
 - b. "When threatened, the puffer inflates to three times its normal size."
 - c. "Sharks have actually died from a pufferfish inflating in their esophagus."
 - d. "Other predators who've witnessed Superman in action stay clear of the Big Puffer!"

5. Read the following sentence from "Best Action Hero: The Spiny Pufferfish":

"Other predators who've witnessed Superman in action stay clear of the Big Puffer!"

Which explanation is most appropriate for why other predators stay clear of the pufferfish?

- a. The predators know it is dangerous from watching it in action.
- b. The predators were poisoned by the pufferfish before.
- c. The predators think the pufferfish is harmless.
- d. The predators think the pufferfish is easy prey.



Mid-Unit 2 Assessment:

Reading and Researching the Defense Mechanisms of the Pufferfish

Part 2: Summarizing the text: After thinking more closely about “Best Action Hero: The Spiny Pufferfish,” summarize what you think this reading is mostly about. Use several specific details from the text in your summary.

After thinking more closely about “All Puffed Up,” summarize what you think this reading is mostly about. Use several specific details from the text in your summary.



Mid-Unit 2 Assessment:
Reading and Researching the Defense Mechanisms of the Pufferfish

Part 3: Reread the texts and complete the research note-catcher.

Focus question: How does the pufferfish use its body and behaviors to help it survive?

Expert Group Animal: Pufferfish

Source: “Award-Winning Survival Skills”

Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



Mid-Unit 2 Assessment:
Reading and Researching the Defense Mechanisms of the Pufferfish

Focus question: How does the pufferfish use its body and behaviors to help it survive?

Expert Group Animal: Pufferfish

Source: “All Puffed Up”

Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive



Mid-Unit 2 Assessment:

Reading and Researching the Defense Mechanisms of the Pufferfish
(Answers, for Teacher Reference)

Long-Term Learning Targets Assessed:

I can explain what a text says using specific details from the text. (RI.4.1)

I can make inferences using specific details from text. (RI.4.1)

I can summarize informational or persuasive text. (RI.4.2)

I can conduct a research project to become knowledgeable about a topic. (W.4.7)

I can document what I learn about a topic by taking notes. (W.4.8)

I can use a variety of strategies to determine the meaning of words and phrases. (L.4.4 a and b)

Part 1: Read both texts for the gist. Then, reread the texts and use them to answer the questions that follow.

From “Award-Winning Survival Skills”:

“Best Action Hero: The Spiny Pufferfish”

Ordinarily, the meek spiny pufferfish (*Diodon holocanthus*) drifts slowly in its native coral-reef habitats around the world. Its round body and small fins make it a sluggish swimmer—and perfect prey. But just try to eat it, and get ready to be BLOWN AWAY! When threatened, the puffer inflates to three times its normal size. “It just swallows water until its stomach is completely full,” says biologist and pufferfish expert Ralph Turingan at the Florida Institute of Technology. How does the fish change shape? Its skin and stomach are super-stretchable. Also, it lacks a rib cage—no bones to impede an expanding stomach. Dare to swallow an uninflated puffer? “Sharks have actually died from a pufferfish inflating in their esophagus,” says Turingan. Other predators who’ve witnessed Superman in action stay clear of the Big Puffer!



Mid-Unit 2 Assessment:

Reading and Researching the Defense Mechanisms of the Pufferfish
(Answers, for Teacher Reference)

“All Puffed Up”:

In the warm tropical ocean, there are fish of many shapes and sizes. Some are harmless vegetarians like the parrotfish. Others are dangerous predators like the tiger shark. And some fish that seem harmless are really quite dangerous.

One such fish swims slowly along. He looks like easy prey. He is the porcupine pufferfish, and his cute cartoon face hides a deadly secret. If a tiger shark or barracuda approaches, he will not try to swim away. Instead, he will quickly swallow water until he is completely full and round. This makes his spines stick out in all directions. He is now impossible to swallow. A predator could manage to sneak up and swallow him, but it would be in for another surprise because he is also toxic.

These defenses won't stop one predator, though. Mankind. In Japan, the porcupine pufferfish is considered a delicacy. The puffer is a rare and expensive food, but it is also deadly to eat if you don't know how to prepare it. Chefs in Japan have to be specially trained to remove the poisonous parts of this fish before they serve it.

Today there are no fishing nets close by and no predators in sight. This little puffer is safe. He continues to swim along, looking for a tasty crab or sea urchin to eat. He may look cute and harmless and like perfect prey, but his deadly defenses keep him quite safe.

Written by Expeditionary Learning for Instructional Purposes. Lexile 810

Sources:

<http://www.flmnh.ufl.edu/fish/Gallery/Descript/Porcupine/Porcupine.htm>

<http://animals.nationalgeographic.com/animals/fish/pufferfish/>

<http://www.bristolzoo.org.uk/porcupine-pufferfish>

<http://www.britannica.com/EBchecked/topic/482954/puffer>



Mid-Unit 2 Assessment:

Reading and Researching the Defense Mechanisms of the Pufferfish
(Answers, for Teacher Reference)

1. Find and reread the following sentence from Paragraph 1 of “Best Action Hero: The Spiny Pufferfish”:

“When threatened, the puffer inflates to three times its normal size.”

Which explanation is most appropriate for how the pufferfish inflates?

- a. The pufferfish fills up its stomach with air.
- b. The pufferfish fills up its stomach with water.**
- c. The pufferfish fills up its spines with air.
- d. The pufferfish fills up its spines with water.

2. Which line from the text “All Puffed Up” best supports your answer for Question 1?

- a. “If a tiger shark or barracuda approaches, he will not try to swim away.”
- b. “Instead, he will quickly swallow water until he is completely full and round.”**
- c. “This makes his spines stick out in all directions.”
- d. “He continues to swim along, looking for a tasty crab or sea urchin to eat.”

3. In “Best Action Hero: The Spiny Pufferfish,” the text says, “Its skin and stomach are super-stretchable.” Using your knowledge of affixes, write the definition of the word *super-stretchable* as used in the context of this sentence:

can be expanded beyond the norm



Mid-Unit 2 Assessment:
Reading and Researching the Defense Mechanisms of the Pufferfish
(Answers, for Teacher Reference)

4. Which line from the text best supports your answer for Question 3?
- a. “Its round body and small fins make it a sluggish swimmer—and perfect prey.”
 - b. “When threatened, the puffer inflates to three times its normal size.”**
 - c. “Sharks have actually died from a pufferfish inflating in their esophagus.”
 - d. “Other predators who’ve witnessed Superman in action stay clear of the Big Puffer!”

5. Read the following sentence from “Best Action Hero: The Spiny Pufferfish”:

“Other predators who’ve witnessed Superman in action stay clear of the Big Puffer!”

Which explanation is most appropriate for why other predators stay clear of the pufferfish?

- a. The predators know it is dangerous from watching it in action.**
- b. The predators were poisoned by the pufferfish before.
- c. The predators think the pufferfish is harmless.
- d. The predators think the pufferfish is easy prey.



Mid-Unit 2 Assessment:
Reading and Researching the Defense Mechanisms of the Pufferfish
(Answers, for Teacher Reference)

Part 2: Summarizing the text: After thinking more closely about “Best Action Hero: The Spiny Pufferfish,” summarize what you think this reading is mostly about. Use several specific details from the text in your summary.

The pufferfish protects itself by inflating to three times its normal size. Its body doesn’t have bones and is super-stretchable.

After thinking more closely about “All Puffed Up,” summarize what you think this reading is mostly about. Use several specific details from the text in your summary.

The pufferfish looks harmless but is very dangerous. It protects itself by swallowing water and inflating, and its spikes make it hard to swallow. It is also toxic.



Mid-Unit 2 Assessment:
Reading and Researching the Defense Mechanisms of the Pufferfish
(Answers, for Teacher Reference)

Part 3: Reread the texts and complete the research graphic organizers.

Focus question: How does the pufferfish use its body and behaviors to help it survive?

Expert Group Animal: Pufferfish

Source: “Award-Winning Survival Skills”

Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive
<ul style="list-style-type: none">• “The puffer inflates to three times its normal size.”	<ul style="list-style-type: none">• It is too big to swallow.
<ul style="list-style-type: none">• “It swallows water until its stomach is completely full.”	<ul style="list-style-type: none">• This is how it is able to inflate to three times its normal size.
<ul style="list-style-type: none">• The pufferfish’s skin and stomach are stretchy.	<ul style="list-style-type: none">• This allows the puffer to be able to inflate.



Mid-Unit 2 Assessment:
Reading and Researching the Defense Mechanisms of the Pufferfish
(Answers, for Teacher Reference)

Focus question: How does the pufferfish use its body and behaviors to help it survive?

Expert Group Animal: Pufferfish

Source: “All Puffed Up”

Details about the Defense Mechanism <ul style="list-style-type: none">• How does the animal use its body to survive?• How does the animal use its behavior to survive?	How This Helps the Animal Survive
<ul style="list-style-type: none">• A pufferfish won’t swim away if a tiger shark or barracuda comes close to it.	<ul style="list-style-type: none">• He’s not fast enough to escape these predators, so he inflates instead.
<ul style="list-style-type: none">• “He will quickly swallow water until he is completely full and round.”	<ul style="list-style-type: none">• This makes his spikes stick out in all directions, which makes it impossible for predators to swallow him.
<ul style="list-style-type: none">• “He is also toxic.”	<ul style="list-style-type: none">• He will kill his predator or make it sick.



Tracking My Progress, Mid-Unit 2

Name: _____

Date: _____

Learning target: I can make inferences based on information from a text.

1. The target in my own words is:

2. How am I doing? Circle one.

**I need more help to
learn this**



I understand some of this



I am on my way!



3. The evidence to support my self-assessment is:



Tracking My Progress, Mid-Unit 2

Learning target: I can summarize a text using the main idea and supporting details found in the text.

1. The target in my own words is:

2. How am I doing? Circle one.

**I need more help to
learn this**



I understand some of this



I am on my way!



3. The evidence to support my self-assessment is:



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Grade 4: Module 2B: Unit 2: Lesson 7

Planning to Write an Informative Piece: Synthesizing Research on Expert Group Animals



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

I can accurately synthesize information from two texts on the same topic. (RI.4.9)
I can produce writing that is appropriate to task, purpose, and audience. (W.4.4)
I can group supporting facts together about a topic in an informative/explanatory text. (W.4.2a)
I can sort my notes into categories. (W.4.8)

Supporting Learning Target

- I can identify characteristics of informative writing.
- I can synthesize information from my research notes onto a planning graphic organizer.
- I can group together facts from my research with related evidence in my informative piece.

Ongoing Assessment

- Informative Page Planning graphic organizer



Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Engaging the Writer: Creating an Informational Texts Anchor Chart (10 minutes)B. Review Learning Targets (5 minutes)2. Work Time<ol style="list-style-type: none">A. Planning an Informative Text: Synthesizing Research Notes (20 minutes)B. Planning an Informative Text: Using a Planning Graphic Organizer (20 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Research Reflection (5 minutes)4. Homework<ol style="list-style-type: none">A. Complete the Introduction and Detail Paragraph boxes on the Informative Page Planning graphic organizer.	<ul style="list-style-type: none">• This is the first in a sequence of lessons during which students plan and write the informative page for Part I of the performance task. In this lesson, they discuss elements of informational texts to frame their writing for their informative page.• Students review and color-code their research notes taken in Lessons 2–5; colors are specified within the lesson for clarity. The specific colors do not matter, as long as they are using three different colors—one for their expert animal’s physical description, one for its defense mechanisms, and one for its predators.• Students then work to synthesize their color-coded notes using the Informative Page Planning graphic organizer. In this lesson, they focus on the Introduction and Detail Paragraphs boxes of the graphic organizer. The focus statement, concluding statement, and vocabulary boxes of this graphic organizer are completed in later lessons, so they should be left blank for now. At the end of this lesson, students should have the Introduction Paragraph and Detail Paragraphs 1 and 2 boxes completed. If they are not completed, students should finish them for homework.• This first piece of the performance task will be assessed using the checklist on the Informative Page Directions—distributed and reviewed in Work Time B—instead of a formal rubric. You may wish to use the New York State expository rubric instead.• Students should organize their materials for the informative page in a writing folder. Be sure they have this folder and introduce it before this lesson.• Depending on the expert group, students may have the defense mechanisms for the detail paragraphs determined for them. It should be noted that for the mimic octopus, the detail paragraphs will be about the same defense mechanism—mimicry—with each paragraph focusing on a different animal that the octopus mimics.• In advance:<ul style="list-style-type: none">– Review: Fist to Five in Checking for Understanding Techniques (see Appendix).– Gather highlighters.• Post: Performance Task and Guiding Questions anchor charts; learning targets.



Lesson Vocabulary	Materials
physical description	<ul style="list-style-type: none">• Informational Texts anchor chart (new; co-created with students during Opening A)• “Award-Winning Survival Skills” (from Unit 1, Lesson 2; one per student and one to display)• <i>Animal Behavior: Animal Defenses</i> (book; from Unit 1; one per student and one to display)• Performance Task anchor chart (begun in Unit 1, Lesson 1)• Equity sticks• Guiding Questions anchor chart (begun in Unit 1, Lesson 1)• Three different-colored highlighters (three highlighters per student and for the teacher)• Expert Group Animal research journals (from Lesson 2; one per student and one to display)• Web Page Research Guide (pages 2-8 of Expert Group Animal research journal; used in Lesson 2)• Research note-catcher (pages 9-11 of Expert Group Animal research journal; used in Lesson 4)• Animal Defenses research journal (from Unit 1; one to display)• Informative Page Directions (one per student and one to display)• Document camera• Informative Page Planning graphic organizer (one per student and one to display)• Informative Page Planning graphic organizer (completed for each expert group; for teacher reference)



Opening	Meeting Students' Needs
<p>A. Engaging the Writer: Creating an Informational Texts Anchor Chart (10 minutes)</p> <ul style="list-style-type: none">• Work with students to reflect on the elements of informational texts to create an Informational Texts anchor chart by inviting them to take out any of the texts read in this module so far, including “Award-Winning Survival Skills,” <i>Animal Behavior: Animal Defenses</i>, and any other texts used in their research.• Invite students to turn and talk with a partner. Ask:<ul style="list-style-type: none">* “What is the purpose of informational texts?”* “What do these texts have in common?”• Ask for volunteers to share out. Collect students’ ideas on the Informational Texts anchor chart. Be sure the following characteristics are included:<ul style="list-style-type: none">– Informational texts inform or teach a reader about a topic.– Informational texts have a topic sentence with evidence like facts and details that support the topic and a concluding statement or section that sums up what the text was about.– Informational texts have precise vocabulary.– Informational texts are based on research the author does before writing.– Informational texts often have pictures or other visuals that support the text.• Tell students that when they write their informational page for Part I of the performance task, they should be sure their writing has these characteristics.	<ul style="list-style-type: none">• Anchor charts provide a visual cue to students about what to do when you ask them to work independently. They also serve as note-catchers when the class is co-constructing ideas.



Opening (continued)	Meeting Students' Needs
<p>B. Review Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Direct students' attention to the Performance Task anchor chart and remind them what they are working toward during this module: an informative page about their expert group animal in this unit, and a narrative featuring their expert group animal in Unit 3. Point to the second bullet point of the prompt ("an informational page ..."). Remind students that they are working on this part of the performance task in this unit.• Tell them they are now ready to begin planning and writing the informational page.• Review what information needs to be on the informational page by using equity sticks to call on a student to read the second bullet point of the performance task prompt aloud:<ul style="list-style-type: none">* "An informational page with a physical description of your animal, its habitat, its defense mechanisms, and predators"• Tell students that before they can begin writing, they will need to synthesize their notes and plan their writing.• Direct students' attention to the learning targets and invite them to silently read the targets to themselves:<ul style="list-style-type: none">* "I can identify characteristics of informative writing."* "I can synthesize information from my research notes onto a planning graphic organizer."* "I can group together facts from my research with related evidence in my informative piece."• Tell students they just worked toward the first target when they created the Informational Texts anchor chart. Answer any clarifying questions about the remaining targets.	<ul style="list-style-type: none">• Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. Planning an Informative Text: Synthesizing Research Notes (20 minutes)</p> <ul style="list-style-type: none">• Frame this part of the performance task by asking:<ul style="list-style-type: none">* “What is the question we are trying to answer in our research?”• Listen for: “How does my expert group animal use its body and behaviors to help it survive?” Remind students that this is one of the guiding questions for the module.• Draw their attention to the Guiding Questions anchor chart. Use equity sticks to call on a student to read the second question aloud:<ul style="list-style-type: none">* “How can a writer use knowledge from their research to inform and entertain?”• Explain that in this unit, they have been working on understanding how writers use research to inform their readers.• Refer back to the Informational Texts anchor chart from Opening A and ask:<ul style="list-style-type: none">* “What topic will we be informing or teaching our reader about?”• Listen for responses such as: “We’ll be teaching our reader about our expert group animal’s defense mechanism” or “We’ll be teaching the reader about how our expert group animal uses its body and behaviors to help it survive.”• Point to the fourth bullet point on the Informational Texts anchor chart:<ul style="list-style-type: none">* “Informational texts are based on research the author does before writing.”• Tell students that now that they have researched their expert group animals, they are ready to begin writing their informational page.• Review the steps of the writing process by asking:<ul style="list-style-type: none">* “What steps do writers go through when writing a text?”• Listen for students to say that writers plan, draft, revise, edit, and publish their writing.• Tell students that researching is part of the planning process; writers need to learn about what they are writing about. Explain that in this lesson, they will use their research to plan their informative pieces.• Refer back to the second bullet point of the performance task prompt and ask:<ul style="list-style-type: none">* “What kind of information do we need to include in our informational pieces?”	<ul style="list-style-type: none">• As an alternative to highlighting notes, you may wish to have students use sticky notes instead. Students could look through their research journals for notes needed for each part of the informational piece, rewriting each note on a sticky note. They could then manipulate the sticky notes to group information or stick the notes directly on their Planning graphic organizers in Work Time B.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Listen for students to say that they will need to include a physical description of their animal and information about its defense mechanisms and its predators.• Using three different-colored highlighters, highlight “<i>physical description of your animal</i>” in pink, “its defense mechanisms” in orange, and “predators” in yellow on the performance task prompt.• Invite students to take out their Expert Group Animal research journals and refer to their Web Page Research Guide and Research note-catcher from pages 2-8 and 9-11. Remind them that they will use these notes to write their informational pieces.• Ask:<ul style="list-style-type: none">* “What information are we looking for in order to write about your animal’s physical description?”• Listen for responses like: “We’re looking for information about what the animal looks like.”• Invite students to skim their notes for information about what their expert group animal looks like.• Guide them to the realization that their notes are organized by source rather than by content.• Ask:<ul style="list-style-type: none">* “How can we organize our notes to help us plan our writing?”• Listen for students to suggest ideas for coding their notes.• Tell them that they will use highlighters to color-code their notes, highlighting their notes in a different color for each part of the informational piece: physical description, defense mechanisms, and predators.• Point to the second bullet point of the performance task prompt and tell students that they will highlight notes about the physical description of their animal in pink, notes about their animal’s defense mechanisms in orange, and notes about their animal’s predators in yellow.• Distribute three different-colored highlighters to each student.• Invite them to independently use their highlighters to color-code their notes.• If necessary, model color-coding notes for the millipede’s physical description in the Animal Defenses research journal (from Unit 1). As you model, be sure to:	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"> – Skim the Animal Defenses research journal for notes on what the millipede looks like and highlight these notes in pink. – Notice notes about other information, such as the millipede's predators, and think aloud about why that should not be highlighted in pink. • Circulate to support students as needed, checking that they are using their highlighters only to highlight information about their animal's physical description, defenses, or predators. Prompt students by asking questions like: <ul style="list-style-type: none"> * "What does your animal look like? Where in your notes did you record that information?" • After about 10 minutes, invite students to check in with their expert groups. Say something like: <ul style="list-style-type: none"> * "With your expert group, discuss what you have highlighted about your animal's physical description." * "What information are you looking through your notes for now?" • Invite students to continue color-coding their notes; they may do so independently or with partners from their expert group. 	
<p>B. Planning an Informative Text: Using a Planning Graphic Organizer (20 minutes)</p> <ul style="list-style-type: none"> • Refocus students whole group. • Ask them to turn their attention to their Expert Group Animal research journals. Invite them to look over their notes and decide how prepared they feel to begin planning their informational page. • Ask students to demonstrate their readiness using the Fist to Five Checking for Understanding technique. <ul style="list-style-type: none"> – Fist – "I am completely confused about what I'm supposed to do and am not prepared at all!" – 1 finger – "I kind of know what I'm doing but still need more support and/or time." – 2 fingers – "I'm getting there. I know what I need to do; I just need a little more support and/or time." – 3 fingers – "I'm almost there." – 4 fingers – "I'm feeling really good about starting to plan." – 5 fingers – "I'm ready to do the planning page right now! Let's go!" • Ask: <ul style="list-style-type: none"> * "Now that we have coded our notes, are we ready to begin drafting our pieces?" • Listen for students to notice that they have not created a written plan and need to do so before writing. 	<ul style="list-style-type: none"> • Graphic organizers and recording forms engage students more actively and provide scaffolding that is especially critical for learners with lower levels of language proficiency and/or learning.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">Explain that students will now have a chance to organize their coded research notes onto a planning page so the information for their writing is all in one spot. Ask:<ul style="list-style-type: none">* “Why is it important to plan our writing using a planning page?”Listen for responses like: “It will help us notice any gaps in our research,” “It will help us think about the organization and flow of our writing,” or “It will help us make sure we are answering our research question completely.”Distribute the Informative Page Directions and use a document camera to display a copy. Invite students to independently read through the directions. Then answer any clarifying questions.Display and distribute the Informative Page Planning graphic organizer. Tell students they will use this graphic organizer to plan their piece; explain that using it will help them include all of the criteria outlined in the directions.Use equity sticks to call on students to read the headings and prompts in each box of the Informative Page Planning graphic organizer. Answer any clarifying questions as the prompts are read.Point out the structure of the informative page: It will have an introduction paragraph and two detail paragraphs, with a concluding statement at the end of the second detail paragraph.Explain that before they try to use the graphic organizer on their own, students will work through an example together for the millipede.Model using the planning graphic organizer. Refer to the Informative Page Planning graphic organizer (for teacher reference) as needed. As you model, be sure to:<ul style="list-style-type: none">– Note for students that they should leave the focus and concluding statements blank for now.– Use your highlighted notes to record information in the introduction paragraph box of the graphic organizer, reminding students to look for notes highlighted in pink for information about the animal’s physical description and notes in yellow for information about its predators.– Look back at the research texts for missing or more specific information than what was recorded in the research notes.– Record the sources used.Invite students to independently look through their notes for information for their introduction paragraphs. Remind them to look for the information they highlighted in pink for the physical description and yellow for the predators and to record the sources they are using in the My Sources box.	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Circulate and support as needed, being sure to check in with students who showed a fist or one or two fingers during the Fist to Five at the start of Work Time B.• After about 5 minutes, bring students back together whole group. Tell them they will have a chance to discuss what they have planned with their expert groups at the end of the lesson.• Tell students they will now plan information for their detail paragraphs. Model deciding on the two defense mechanisms to write about and adding details to the graphic organizer. As you model, be sure to:<ul style="list-style-type: none">– Use your highlighted notes to record information in each remaining part of the graphic organizer, reminding students to look for notes highlighted in orange about the animal's defense mechanisms.– Look back at the research texts for missing or more specific information than what was recorded in the research notes.• Invite students to independently look through their notes for information for their detail paragraphs. Remind them to look for information they highlighted in orange for the defense mechanisms of their expert group animal and to record any new sources they are using in the My Sources box.• Circulate and support as needed, being sure to check in with students who showed a fist or one or two fingers during the Fist to Five at the start of Work Time B.• After about 10 minutes, bring students back together whole group. Tell them they will now have a chance to debrief their work with their expert groups.	<ul style="list-style-type: none">• You may wish to pull a small group of students during this time, focusing your attention on those who need support with organization of materials.



Closing and Assessment	Meeting Students' Needs
<p>A. Research Reflection (5 minutes)</p> <ul style="list-style-type: none">• Invite students to gather in their expert groups with their Informative Page Planning graphic organizers.• Have them Think-Pair-Share. Ask:<ul style="list-style-type: none">* “Look at the boxes for the introduction and detail paragraphs. What information do you need to research further?”• Listen for them to notice any gaps in their research based on the notes they recorded on their graphic organizers.• Explain that for homework, they should reread their research texts and notes, looking for any information that is missing from the introduction and detail paragraph boxes on the Informative Page Planning graphic organizers.	<ul style="list-style-type: none">• Developing self-assessment and reflection supports all learners.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Complete the Introduction and Detail Paragraph boxes on the Informative Page Planning graphic organizer.	



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 7

Supporting Materials



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Informational Texts Anchor Chart
(For Teacher Reference)

Teacher directions: Write the following on chart paper to create this anchor chart.

Informational Texts

- * Informational texts inform or teach a reader about a topic.
- * Informational texts have a topic sentence with evidence like facts and details that support the topic and a concluding statement or section that sums up what the text was about.
- * Informational texts have precise vocabulary.
- * Informational texts are based on research the author does before writing.
- * Informational texts often have pictures or other visuals that support the text.



Informative Page Directions

Name: _____

Date: _____

Directions:

1. Read the prompt below.
2. Using your research notes from your Expert Group Animal research journal, plan an informative written piece for the prompt below. (*RI.4.9, W.4.2, W.4.4, W.4.7*)
3. Write your piece on a separate sheet of lined paper.

Prompt:

Review your research about your animal's defense mechanisms. Then, use the evidence you have gathered to write an informative piece that describes two defense mechanisms of the animal you have researched. Be sure to do the following in your piece:

_____ Introduce the animal you have researched, including a focus statement that states the main idea of the piece. (*W.4.2a*)

_____ Use paragraphs to group related facts and evidence. (*W.4.2a*)

_____ Use facts and details to describe two of your animal's defense mechanisms. (*W.4.2b, W.4.8*)

_____ Use precise vocabulary to inform about your animal. (*W.4.2d*)

_____ Provide a concluding statement that restates the focus statement. (*W.4.2e*)

_____ Synthesize information from at least two research sources. (*RI.4.9, W.4.7, W.4.8*)

_____ Use vocabulary from your research on animal defense mechanisms to accurate descriptions throughout the piece. (*W.4.2d, L.4.3a, L.4.6*)

_____ Use correct capitalization and spell fourth-grade words correctly.

Use the following planning graphic organizer to plan your informative piece before writing your draft.



Informative Page Planning Graphic Organizer

Name:

Date:

Focus Question: How does my expert group animal use its body and behaviors to help it survive?

Focus Statement:

Name:

Date:

Introduction Paragraph

Describe your animal.

Details:

- What is my animal?
- What does my animal look like?
- Where does it live?
- What are its predators?

Detail Paragraph 1

What is one defense mechanism my animal uses?

How/when would my animal use this defense mechanism?

Details:

-
-
-



Informative Page Planning Graphic Organizer

<p>Detail Paragraph 2</p> <p>What is another defense mechanism my animal uses?</p> <p>How/when would my animal use this defense mechanism?</p> <p>Details:</p> <ul style="list-style-type: none">•••	<p>Concluding Statement</p> <p>Restate your focus statement from the introduction.</p>
<p>My Sources: List any sources you used in planning your informative piece.</p>	<p>Vocabulary from my research to be used:</p>



Informative Page Planning Graphic Organizer
(For Teacher Reference)

Focus Question: How does my expert group animal use its body and behaviors to help it survive?

Focus Statement:

To protect themselves from predators, millipedes have two main defense mechanisms. When they're near a predator, they might roll into a ball or ooze poison.

Name: **Millipede model**

Date:

<p>Introduction Paragraph Describe your animal.</p> <p>Details: What is my animal? the millipede</p> <p>What does my animal look like? -20–100 body segments -two pairs of legs on each segment -hard exoskeleton -long and skinny</p> <p>Where does it live? -lives outdoors in damp areas like the forest floor -lives in our houses—basements</p> <p>What are its predators? -ants and toads</p>	<p>Detail Paragraph 1 What is one defense mechanism my animal uses? -rolling into a ball</p> <p>How/when would my animal use this defense mechanism? -When a predator comes near, it rolls into a ball.</p> <p>Details: The hard exoskeleton protects its body from the predator. They look like little pebbles, so the predator ignores them. Body segments make it easy to roll.</p>
<p>Detail Paragraph 2 What is another defense mechanism my animal uses? -emits poison</p> <p>How/when would my animal use this defense mechanism? -oozes poison when attacked</p> <p>Details: Droplets are sticky and stick to predators. While the predator tries to clean off the fluid, it gets stickier and the millipede escapes. The poison can paralyze or kill the predators. The poison smells, and when predators smell it, they run away.</p>	<p>Concluding Statement Restate your focus statement from the introduction.</p> <p>Millipedes are very special critters. They have unusual and interesting defense mechanisms that keep them safe from predators.</p>
<p>My Sources: List any sources you used in planning your informative piece. <i>Animal Behavior: Animal Defenses</i> <i>Venom</i></p>	<p>Vocabulary from my research to be used: emit exoskeleton paralyze predator threaten</p>



Informative Page Planning Graphic Organizer
(For Teacher Reference)

Focus Question: How does my expert group animal use its body and behaviors to help it survive?

Focus Statement:

The armadillo has many ways of protecting itself.

Name: **Armadillo model**

Date:

Introduction Paragraph

Describe your animal.

Details:

What is my animal?

the three-banded armadillo

What does my animal look like?

-powerful claws

-sticky tongue

-curls into a ball

-covered in thick plates

-plates form an armor called carapace

Where does it live?

-South America

-marsh

-grasslands

What are its predators?

-jaguars, alligators, humans

Detail Paragraph 2

What is another defense mechanism my animal uses?

-rolling into a ball

How/when would my animal use this defense mechanism?

-when a predator attacks

Details:

Each band of armor is separated from the others by a band of skin, which lets the armadillo flex its body and roll up.

The shoulder and haunch plates aren't attached on the sides to the armadillos' skin, so there's room inside to fit a head, legs, and tail.

Rolling into a ball protects its head, legs, and tail, which aren't covered by the armor otherwise.

When an armadillo is rolled into a ball, the shell protects its body.

It's difficult for a predator to crack open the armadillo's shell.

Detail Paragraph 1

What is one defense mechanism my animal uses?

-runs away and lets its hard armor protect it

How/when would my animal use this defense mechanism?

-The armor protects the armadillo when a predator attacks it.

Details:

The armor is hard.

Scientists call the armor carapace.

The armor is made up of bony plates and is arranged in bands around the armadillo's body.

The shell is good insulation and keeps the armadillo warm in the winter.

Concluding Statement

Restate your focus statement from the introduction.

The armadillo protects itself with its hard armor and by rolling into a ball.



Informative Page Planning Graphic Organize
(For Teacher Reference)

<p>My Sources: List any sources you used in planning your informative piece.</p> <p><i>Animal Behavior: Animal Defenses</i></p> <p>“Award-Winning Survival Skills”</p> <p>Web page: http://www.arkive.org/brazilian-three-banded-armadillo/tolypeutes-tricinctus/</p>	<p>Vocabulary from my research to be used:</p> <p>armor</p> <p>plates</p> <p>flex</p>
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Informative Page Planning Graphic Organizer
(For Teacher Reference)

Focus Question: How does my expert group animal use its body and behaviors to help it survive?

Focus Statement:

The gazelle has many ways of protecting itself.

Name: Gazelle model

Date:

<p>Introduction Paragraph Describe your animal.</p> <p>Details:</p> <ul style="list-style-type: none"> • What is my animal? the gazelle • What does my animal look like? -brownish coat -black horns -black stripe on sides -white patch on back -long legs • Where does it live? -South Africa -grasslands • What are its predators? -lions, cheetahs, wild dogs 	<p>Detail Paragraph 1 What is one defense mechanism my animal uses? -hiding</p> <p>How/when would my animal use this defense mechanism? -when a predator approaches</p> <p>Details:</p> <ul style="list-style-type: none"> • Fawns have tawny coats that blend in with the grass. • Fawns can lie still for a long time, so the grass doesn't move and the predator doesn't notice them. • Hiding, freezing, or blending in with their habitat is called crypsis.
<p>Detail Paragraph 2 What is another defense mechanism my animal uses? -running away</p> <p>How/when would my animal use this defense mechanism? -when a predator starts to come close</p> <p>Details:</p> <ul style="list-style-type: none"> • Gazelles jump or bounce with their backs arched and legs stiff, which is called stotting or pronking. • Stotting lets the predator know the gazelles are strong, healthy, and faster than the predator. • Stotting also warns other gazelles that a predator is close, so the predator loses its chance of a surprise attack. 	<p>Concluding Statement Restate your focus statement from the introduction.</p> <p>The gazelle protects itself by blending in with its habitat or running away.</p>
<p>My Sources: List any sources you used in planning your informative piece. <i>Animal Behavior: Animal Defenses</i> Web page: http://www.arkive.org/springbok/antidorcas-marsupialis/</p>	<p>Vocabulary from my research to be used: crypsis stotting or pronking herd</p>



Informative Page Planning Graphic Organizer
(For Teacher Reference)

Focus Question: How does my expert group animal use its body and behaviors to help it survive?

Focus Statement:

The mimic octopus protects itself by imitating other animals.

Name: Mimic Octopus model

Date:

<p>Introduction Paragraph Describe your animal.</p> <p>Details:</p> <ul style="list-style-type: none"> What is my animal? the mimic octopus What does my animal look like? -stripes -no shell and no bones -eight arms Where does it live? -along the muddy ocean floor -off the coast of Indonesia What are its predators? -damselfish, sharks, barracudas 	<p>Detail Paragraph 1 What is one defense mechanism my animal uses? -mimicking the sole</p> <p>How/when would my animal use this defense mechanism? -when a predator approaches</p> <p>Details:</p> <ul style="list-style-type: none"> It's the only animal that can mimic more than one other animal. Mimicking other animals lets the octopus hide in plain sight. It can change the color and shape of its body. Sole are common, so predators aren't interested in them and ignore them. The octopus pulls its arms together and moves like the sole.
<p>Detail Paragraph 2 What is another defense mechanism my animal uses? -mimicking the poisonous lionfish</p> <p>How/when would my animal use this defense mechanism? -when a predator starts to come close</p> <p>Details:</p> <ul style="list-style-type: none"> The octopus spreads out its arms and lets them dangle, twists its body, and changes its stripes to look like a lionfish. The predator thinks it's a lionfish, which are poisonous, so it stays away. 	<p>Concluding Statement Restate your focus statement from the introduction.</p> <p>The mimic octopus protects itself by mimicking different animals.</p>
<p>My Sources: List any sources you used in planning your informative piece. <i>Animal Behavior: Animal Defenses</i> "Award-Winning Survival Skills"</p> <p>Web page: http://phenomena.nationalgeographic.com/2009/12/13/the-mimic-octopus-my-first-ever-post/</p>	<p>Vocabulary from my research to be used: mimic imitate common</p>



Informative Page Planning Graphic Organizer
(For Teacher Reference)

Focus Question: How does my expert group animal use its body and behaviors to help it survive?

Focus Statement:

The monarch butterfly protects itself in several ways.

Name: Monarch model

Date:

<p>Introduction Paragraph Describe your animal.</p> <p>Details:</p> <ul style="list-style-type: none"> What is my animal? monarch butterfly What does my animal look like? -black, white, and bright orange wings -white dots along the wings -black body Where does it live? -America, Mexico What are its predators? -birds, praying mantises 	<p>Detail Paragraph 1 What is one defense mechanism my animal uses? -poison</p> <p>How/when would my animal use this defense mechanism? -when a predator eats it</p> <p>Details:</p> <ul style="list-style-type: none"> They get their poison from eating milkweed plants when they are caterpillars. The poison tastes bad, so the predator drops the butterfly, letting it escape. The poison doesn't kill the monarch's enemy, but it makes it sick. The predator learns to stay away from the butterfly.
<p>Detail Paragraph 2 What is another defense mechanism my animal uses? -warning colors</p> <p>How/when would my animal use this defense mechanism? -when a predator starts to come close</p> <p>Details:</p> <ul style="list-style-type: none"> The monarch is bright orange, black, and white. It has bright warning colors, letting the predator know that it is poisonous. The colors and patterns are aposematic, which means they warn predators that the animals have poison. 	<p>Concluding Statement Restate your focus statement from the introduction.</p> <p>The monarch butterfly protects itself by poisoning its predators.</p>
<p>My Sources: List any sources you used in planning your informative piece. <i>Animal Behavior: Animal Defenses</i> <i>Venom</i> <i>Web Page:</i> http://www.arkive.org/monarch-butterfly/danaus-plexippus/</p>	<p>Vocabulary from my research to be used: warning colors educated</p>



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 8

Writing Informational Texts: Crafting Introductions



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Long-Term Target Addressed (Based on NYSP12 ELA CCLS)	
I can introduce a topic clearly. (W.4.2a)	
Supporting Learning Targets	Ongoing Assessment
<ul style="list-style-type: none">• I can write an introduction paragraph for my informative piece that describes my expert group animal, its habitat, and its predators.• I can write a focus statement that answers the focus question and tells the topic of my writing.	<ul style="list-style-type: none">• Draft of introduction paragraph



Agenda	Teaching Notes
<ol style="list-style-type: none">Opening<ol style="list-style-type: none">Engaging the Writer and Reviewing Learning Targets (5 minutes)Work Time<ol style="list-style-type: none">Criteria for Introductions (5 minutes)Examining Models of Introductions (15 minutes)Guided Practice: Writing a Focus Statement (10 minutes)Drafting an Introduction Paragraph (20 minutes)Closing and Assessment<ol style="list-style-type: none">Share (5 minutes)Homework<ol style="list-style-type: none">Finish the introduction.	<ul style="list-style-type: none">In this lesson, students begin drafting the informative page for their performance task. This lesson focuses on drafting the introduction paragraph.Students follow along as the teacher reads aloud the introductions from two texts from Units 1 and 2: the “Award-Winning Survival Skills” article and the section “Poisonous Prey” from <i>Animal Behavior: Animal Defenses</i>. Then they discuss how these authors crafted effective introductions, and these points are recorded on the Effective Introductions anchor chart. A copy of each introduction is posted next to its corresponding points. Students will refer to these models as they craft their own introductory paragraphs in Work Time D.After examining these models, students move on to craft focus statements for their informative pages. A focus statement is similar to a topic sentence in that it states the main idea of the writing. It also answers the focus question in a succinct way. Be sure to remind students that a focus statement is short and to the point and does not go into detail answering the focus question.Students end Work Time by using their Informative Page Planning graphic organizers to write a draft of their introduction paragraphs.Then, students take time in the Closing to read their introductions aloud to a partner who is not in their expert group and receive feedback. The purpose of this is to share with someone who is unfamiliar with the expert group animal and therefore more likely to notice information that may be unclear or missing from the introduction paragraph.In advance:<ul style="list-style-type: none">Create and post the Effective Introductions anchor chart (see the supporting materials).Review the Informative Page Directions. Although students read through these directions in Lesson 7, being familiar with them yourself will help you more effectively support students as they write their introductions and focus statements in this lesson.Post: Learning targets.



Lesson Vocabulary	Materials
introduction, focus statement	<ul style="list-style-type: none">• Effective Introductions anchor chart (new; teacher-created; see supporting materials)• Document camera• “Award-Winning Survival Skills” (from Unit 1, Lesson 2; one per student and paragraphs 1-3 to display)• Equity sticks• <i>Animal Behavior: Animal Defenses</i> (book; from Unit 1; one per student and one to display)• <i>Animal Behavior: Animal Defenses</i> (one to display; specifically the very first paragraph)• Informative Page Planning graphic organizer (from Lesson 7; one per student and one to display)• Millipede informative piece draft (for teacher reference)• Lined paper (several pieces per student)• Informative Page Directions (from Lesson 7; one per student and one to display)



Opening	Meeting Students' Needs
<p>A. Engaging the Writer and Reviewing Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Ask students if they've ever picked up a book or some other piece of writing and read a few sentences, then decided to put it down.• Acknowledge that most readers have done this. Readers don't want to waste their time reading something that doesn't interest them. Most readers decide if a piece of writing is going to be interesting by reading the beginning of it. That's why beginnings are so important.• Review the steps of the writing process by asking:<ul style="list-style-type: none">* "What steps do writers go through when writing a text?"• Listen for students to explain that writers plan, draft, revise, edit, and publish their writing. Ask:<ul style="list-style-type: none">* "Where are we in the writing process for writing our informative pieces?"• Listen for students to say that they have researched and planned their pieces.• Direct their attention to the learning targets and ask for volunteers to read them:<ul style="list-style-type: none">* "I can write an introduction paragraph for my informative piece that describes my expert group animal, its habitat, and its predators."* "I can write a focus statement that answers the focus question and tells the topic of my writing."• Ask students if they are unfamiliar with any of the words in the learning targets. They might identify these words:<ul style="list-style-type: none">– <i>introduction</i> – opening, beginning– <i>focus statement</i> – answers the focus question, tells the topic of the piece• Write the synonym above the targeted word(s) in the learning targets and ask two more students to reread the targets.• Ask students to show you a thumbs-up if they understand what they will be learning today, a thumbs-sideways if they need some more clarification, and a thumbs-down if they still don't know. Clarify as necessary.	<ul style="list-style-type: none">• Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. Criteria for Introductions (5 minutes)</p> <ul style="list-style-type: none">• Explain that in narratives we call the beginning of a piece “the beginning,” but in informational writing we call the beginning an “introduction.” It’s similar but just has different purposes and audiences. Explain that in all writing, the author needs to make sure his or her piece begins in a way that is appropriate for the audience, grabs the reader’s attention, and makes them want to read more.• Explain that an effective introduction has three pieces. Refer to the posted Effective Introductions anchor chart. Ask students to read the anchor chart silently to themselves:<ul style="list-style-type: none">– Catches the reader’s attention: hooks a reader into wanting to read more– Provides context—necessary background information—so that the reader can understand the information in the piece– Is appropriate to purpose and audience: the writer thinks carefully about who will be reading this piece and why when deciding what information and words to use• Check for understanding by having students put their hands on their heads if they understand what these mean or hands on their shoulders if they somewhat understand but need some clarification. Clarify as needed.	<ul style="list-style-type: none">• Putting copies of anchor charts in students’ research folders will give them personal access to important information as they work independently.



Work Time (continued)	Meeting Students' Needs
<p>B. Examining Models of Introductions (15 minutes)</p> <ul style="list-style-type: none"> Ask students to take out their own copy of “Award-Winning Survival Skills.” Use a document camera to display paragraphs 1-3. Remind them that they should be familiar with the content of this article because they read it in Unit 1 when they were learning to determine the main idea and in Unit 2 to gather research about their expert group animal. (<i>Note: If you feel that your students need to review the content of this text before proceeding with this lesson, briefly read the text aloud as they follow along.</i>) Read the first three paragraphs aloud as students follow along. Ask students to think about how the author designed the introduction so that it gave the reader important information and grabbed the reader’s attention about the topic. Once you’ve finished reading, ask students to turn and talk: <ul style="list-style-type: none"> * “How did the author design the introduction so it grabbed the reader’s attention and gave important information?” Use equity sticks to cold call one or two students. Listen for responses like: “The author started by giving examples of animal defense mechanisms,” “She started by asking a question to get the reader curious about the answer,” and “She ended with a sentence that explained what a reader can learn about when reading the article.” Point to the Effective Introductions anchor chart and document students’ observations by writing the following in the left-hand column of the anchor chart: <ul style="list-style-type: none"> – Introduction #1: <ul style="list-style-type: none"> Begins by asking a question Gives examples of animal defense mechanisms Ends with a sentence that explains what the reader will learn about Post a copy of the introduction paragraphs in the right-hand column. Students will refer to these model examples as they draft their own introductions in Work Time D. Display the Animal Behavior: Animal Defenses and open to “Poisonous Prey” on page 56. Ask students to get out their copies of the text and open to page 56. Focus students on the first paragraph on page 56. Again, remind the students that they should be familiar with the content of this text because they read it in Unit 1 (Lesson 5) when they did a guided close read of this section. (<i>Note: If you feel that your students need to review the content of this text before proceeding with this lesson, briefly read the text aloud as they follow along.</i>) 	<ul style="list-style-type: none"> Throughout this unit and Unit 3, students read and use mentor texts. Mentor texts are model texts, written by real authors, that students examine to see strong examples of writing craft. In this unit, students analyze various examples of informational texts. For more information on the use of mentor texts, read <i>Study Driven</i> by Katie Wood Ray.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Ask the students to turn to a shoulder partner and read the first paragraph aloud together. After they've read it, ask them to discuss how they think this section begins. Is it the same as the introduction from "Award-Winning Survival Skills"? Is it different?• Invite partnerships to find another partnership to share their thinking. Once the foursome has a collective understanding of how the introduction was designed to grab the attention, ask them all to raise their hands so that they form a silent "tepee" of hands.• When all groups have their hands up, ask one person from each group to share. Listen for responses like: "This one started by describing how poisonous animals use their poison" or "The author ended the paragraph with a sentence that made the reader interested in reading more about how animals use their poison."• Document their observations on the chart by writing in the left-hand column:<ul style="list-style-type: none">– Introduction #2:<ul style="list-style-type: none">• Begins by describing the topic• Hooks the reader in the last sentence• Post a copy of the first paragraph on page 56 <i>Animal Behavior: Animal Defenses</i> in the right-hand column.	



Work Time (continued)	Meeting Students' Needs
<p>C. Guided Practice: Writing a Focus Statement and Introduction (10 minutes)</p> <ul style="list-style-type: none">• Tell students that one thing both of the example introductions had in common was ending with a sentence that stated the topic of the article or section of text. Explain that this is called the thesis or focus statement.• Invite students to take out their Informative Page Planning graphic organizer and display the millipede model started in Lesson 7. Point out the focus question at the top of the graphic organizer and cold call a student to read it aloud:<ul style="list-style-type: none">* “How does my expert group animal use its body and behaviors to help it survive?”• Explain that a focus statement is brief and to the point, and answers the focus question.• Rephrase the focus question so it is specific to the millipede and invite students to Think-Pair-Share. Ask:<ul style="list-style-type: none">* “How does the millipede use its body and behaviors to help it survive?”• Cold call a few students to share out. Listen for responses like: “The millipede has many ways of protecting itself” or “The millipede protects itself by rolling into a ball and using poison.” As students share out, write their examples on the board.• Choose one example focus statement from the student-generated list and write it on the millipede Informative Page Planning graphic organizer in the Focus Statement box.• Invite students to Ink-Pair-Share a focus statement for their own piece, writing the focus statement in the appropriate box on their Informative Page Planning graphic organizer. Give them 5 minutes to do so, circulating and supporting as needed. Look for students writing focus statements that answer the focus question for their expert group animal.• Ask students to help you draft the introduction of the millipede informative piece. Ask:<ul style="list-style-type: none">* “What should we refer to while drafting our introductions?”• Listen for responses like: “our planning graphic organizer” or “the introduction part of our graphic organizer.”• Invite students to turn and talk to a partner. Ask them to reread the millipede Informative Page Planning graphic organizer together. Ask:<ul style="list-style-type: none">* “Think about your ideas: What will be described in the introduction?”• Use equity sticks to call on students to share what they talked about with their partner. Listen for responses like: “what the millipede looks like, where it lives, and its predators.”• If necessary, explain that the focus statement will also be included in the introduction.	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Drawing from the ideas students shared, craft and write a sentence that introduces the topic and describes the millipede. (See millipede informative piece draft in the supporting materials). Continue this process to write the rest of the introduction paragraph.• Invite students to chorally read the finished introduction about the millipede.	
<p>D. Drafting an Introduction Paragraph (20 minutes)</p> <ul style="list-style-type: none">• Distribute lined paper and tell students that they are about to complete a draft of their introduction paragraph for their informative page. Remind them that since it is a first draft, it does not have to be perfect.• Students should reference the criteria for an introduction on the Informative Page Directions and be encouraged to refer frequently to the Effective Introductions anchor chart when drafting.• Remind them that when they write a draft, they should skip lines so they have room to make revisions and edits later in the writing process.• Give students 20 minutes to write their introductory paragraphs. Circulate and support them as needed. Be sure to confer with students whom you observed struggling with planning their writing in Lesson 7. Help them focus on getting their ideas down on paper as opposed to worrying about spelling or grammar. Remind them that they will edit their writing toward the end of the writing process.	<ul style="list-style-type: none">• During independent work, the teacher can support students with special needs or ELLs as needed. Just be sure to let them, too, struggle with the task, as successful completion after considerable effort builds both stamina and confidence.



Closing and Assessment	Meeting Students' Needs
<p>A. Share (5 minutes)</p> <ul style="list-style-type: none">• Invite students to find a partner from a different expert group.• Ask them to read their introduction aloud to their partner. While one partner reads his or her introduction aloud, the other partner should listen for the required information (physical description of the animal, its habitat, and its predators) and the focus statement, providing feedback on whether anything is missing from the introduction. Then, the partners should repeat, switching roles.• Explain that, for homework, students should finish drafting their introductions or adding any missing information based on their partner's feedback.	
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Finish your introduction.	



EXPEDITIONARY
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Grade 4: Module 2B: Unit 2: Lesson 8

Supporting Materials



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Effective Introductions Anchor Chart

Teacher directions: Write the following on chart paper to create this anchor chart.

Effective Introductions

- **Catches the reader's attention**—hooks a reader into wanting to read more
- **Makes the reader want to read more**—necessary background information—so that the reader can understand the information in the piece
- **Is appropriate to purpose and audience**—the writer thinks carefully about who will be reading this piece and why when deciding what information and words to use

How the Introduction Is Effective	Example Text



Millipede Informative Piece Draft
(For Teacher Reference)

Teacher directions: This is a sample of what may be created with students during Work Time C. This model will be added to in subsequent lessons; there are conventions mistakes in it intentionally that will be used to model editing in Lesson 11.

The millipede is a relative of the centipede. they have twenty to one hundred body segments, and too pairs of legs on each segment. Millipedes like to be in damp areas. In the wild, they live on moist forest floors. Some millipedes live in our houses! They like to live in bathrooms and basements because they're damp. Millipedes aren't fast. They roll into balls and eat leaves or decayin vegetation. Their main predators are ants, toads, and mice. To protect themselves from predators, millipedes have two main defense mechanisms. When they're near a predator, they might roll into a ball or ooze poison.



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 9

Writing Informational Texts: Developing Body Paragraphs



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)	
I can develop the topic with facts, definitions, details, and quotations. (W.4.2b) I can construct a concluding statement or section of an informative/explanatory text. (W.4.2e)	
Supporting Learning Targets	Ongoing Assessment
<ul style="list-style-type: none">• I can write body paragraphs for my informative piece that describe the defense mechanisms of my expert group animal.• I can write a concluding statement for my informative piece that summarizes the defense mechanisms of my expert group animal.• I can group together scientifically accurate facts with related evidence in my informative piece.	<ul style="list-style-type: none">• Draft of body paragraphs



Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Reviewing Learning Targets (5 minutes)2. Work Time<ol style="list-style-type: none">A. Criteria for Body Paragraphs (5 minutes)B. Examining Models of Body Paragraphs (15 minutes)C. Guided Practice: Writing a Body Paragraph and a Concluding Statement (10 minutes)D. Drafting Body Paragraphs (20 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Share (5 minutes)4. Homework<ol style="list-style-type: none">A. Finish your body paragraphs.B. In your Expert Group Animal research journal, complete a 3rd draft sketch on the Sketch Page.	<ul style="list-style-type: none">• The flow of this lesson is similar to Lesson 8. In this lesson, students continue drafting the informative page for their Performance Task. This lesson focuses on drafting the body paragraphs. Note that the concluding statement should come at the end of students' second body paragraph. It will not be given its own paragraph.• Similar to Lesson 8, students examine model body paragraphs before crafting their own. They follow along as the teacher reads aloud body paragraphs from two texts from Units 1 and 2: "Award-Winning Survival Skills" and "Poisonous Prey" from <i>Animal Behavior: Animal Defenses</i>. Then students discuss how these authors crafted effective body paragraphs, and these points are recorded on the Effective Body Paragraphs anchor chart. A copy of the body paragraphs are posted next to their corresponding points on the anchor chart. Students will refer to these models as they craft their own body paragraphs in Work Time D.• Students then work to craft concluding statements for their pieces. A concluding statement is similar to a focus statement in that it answers the focus question in a succinct way. Be sure to remind students that a concluding statement is short and to the point, like a focus statement, and does not go into detail answering the focus question. Also remind students that it restates the answer to the focus question, so it should be different from the focus statement.• As in Lesson 8, students end Work Time by using their Informative Page Planning graphic organizers to write a draft of their body paragraphs.• Then, students take time in the Closing to read their introductions aloud to a partner who is not in their expert group and receive feedback. The purpose of this is to share with someone who is unfamiliar with the expert group animal and therefore more likely to notice information that may be unclear or missing from the introduction paragraph.• In advance: Create and post the Developing Body Paragraphs anchor chart (see supporting materials).• Review Whip Around or "Go 'Round" in Checking for Understanding techniques (see Appendix).• Post: Learning targets.



Lesson Vocabulary	Materials
body paragraphs, concluding statement, scientifically accurate, restating	<ul style="list-style-type: none">• Expert Group Animal research journals (from Lesson 2; one per student and one to display)• Informative Page Directions (from Lesson 7; one per student and one to display)• Developing Body Paragraphs anchor chart (new; teacher-created; see supporting materials)• Informative Page Planning graphic organizer (from Lesson 7; one per student and one to display)• “Award-Winning Survival Skills” (from Unit 1, Lesson 2; one per student and one to display)• Document camera• Equity sticks• <i>Animal Behavior: Animal Defenses</i> (book; from Unit 1; one per student and one to display)• Millipede Informative Piece Draft (for teacher reference)• Informative piece drafts (from Lesson 8; one per student)• Lined paper (several pieces per student)• Sketch page (page 12 of Expert Group Animal research journal; for homework)



Opening	Meeting Students' Needs
<p>A. Reviewing Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Direct students' attention to the learning targets and ask for volunteers to read them aloud:<ul style="list-style-type: none">* "I can write body paragraphs for my informative piece that describe the defense mechanisms of my expert group animal."* "I can write a concluding statement for my informative piece that summarizes the defense mechanisms of my expert group animal."* "I can group together scientifically accurate facts with related evidence in my informative piece."• Ask students if they are unfamiliar with any words in the learning targets. They might identify these words:<ul style="list-style-type: none">– <i>body paragraphs</i> – paragraphs that develop the topic with facts, definitions, details, and quotations– <i>concluding statement</i> – answers the focus question; restates the focus statement– <i>scientifically accurate</i> – means the science has to be right, or reasons and evidence have to be based on research• Write the synonym above the word(s) in the learning targets and ask for new volunteers to read the targets again. Ask students to show you a thumbs-up if they understand what they will be learning today, a thumbs-sideways if they need some more clarification, and a thumbs-down if they still don't know. Clarify as necessary.• For the last target, ask students to turn and talk:<ul style="list-style-type: none">* "What does it mean to 'group accurate facts with related evidence'?"• Listen for explanations like: "It means our evidence has to match our facts."	<ul style="list-style-type: none">• Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. Criteria for Body Paragraphs (5 minutes)</p> <ul style="list-style-type: none"> Review the steps of the writing process by asking: <ul style="list-style-type: none"> * “Where are we in the writing process for writing our informative pieces?” Listen for students to say that they have researched and planned their pieces and have begun drafting. Explain that in informational writing, we call the middle paragraphs of a piece of writing the body paragraphs. Tell students that in these paragraphs, the author develops the topic with facts, definitions, details, and quotations from research. Invite students to take out their Informative Page Directions and read the second and third criteria: <ul style="list-style-type: none"> * “Use paragraphs to group related facts and evidence.” * “Use facts and details to describe two of your animal’s defense mechanisms.” Explain that students will focus on these criteria when writing their body paragraphs. Direct students to the posted Developing Body Paragraphs anchor chart: <ul style="list-style-type: none"> – Paragraphs are grouped with related facts and evidence. – Facts and details are used to describe the topic. Display the millipede model of the Informative Page Planning graphic organizer. Ask students to turn and talk: <ul style="list-style-type: none"> * “How many paragraphs have we planned?” Listen for them to notice that there will be three paragraphs. Point out that the concluding statement will be at the end of the second body paragraph and will not be its own paragraph. Ask: <ul style="list-style-type: none"> * “What should each body paragraph contain (based on your plans and what you know about the characteristics of informational texts)?” Listen for responses like: “Each body paragraph should describe one defense mechanism the expert group animal uses, how or when the animal uses that defense mechanism, and details about the defense mechanism.” Ask: <ul style="list-style-type: none"> * “What are the features of a strong paragraph?” Listen for responses like: “A strong paragraph has a topic sentence, details, and concluding sentence.” 	<ul style="list-style-type: none"> Putting copies of anchor charts in students’ research folders will give them personal access to important information as they work independently.



Work Time (continued)	Meeting Students' Needs
<p>B. Examining Models of Body Paragraphs (15 minutes)</p> <ul style="list-style-type: none"> Ask students to get out their copy of “Award-Winning Survival Skills.” Use a document camera to display the first paragraph on page 10. Remind students that they should be familiar with the content of this article because they read it in Unit 1 when they were learning to determine the main idea and in Unit 2 to gather research about their expert group animal. (<i>Note: If you feel that your students need to review the content of this text before proceeding with this lesson, briefly read the text aloud as they follow along.</i>) Tell students that this is a body paragraph from this text. Read it aloud as students follow along. As you read, ask students to think about how the author designed the body paragraph to develop the topic. Once you've finished reading, ask students to turn and talk to a neighbor: <ul style="list-style-type: none"> * “How did the author design the body paragraph to develop the topic?” Use equity sticks to cold call one or two students. Listen for responses like: “The author shared facts about the armadillo” or “She started by describing the body shield and then gave details about it.” Point to the Developing Body Paragraphs anchor chart and document their observations by writing the following in the left-hand column: <ul style="list-style-type: none"> – Body Paragraph #1: <ul style="list-style-type: none"> • Describes the body shields • Gives more details about the body shield using scientific vocabulary Post a copy of the body paragraph in the right-hand column. Students will refer to this model as they draft their own body paragraphs in Work Time D. Ask students to get out their copy of Animal Behavior: Animal Defenses and open it to “Poisonous Prey” on page 56. Display the second paragraph of the section. Again, remind students that they should be familiar with the content of this text because they read it in Unit 1, Lesson 5 when they did a guided close read of this section. (<i>Note: If you feel that your students need to review the content of this text before proceeding with the lesson, briefly read the text aloud as they follow along.</i>) Ask students to turn to a shoulder partner and read the first paragraph aloud together. After they've read it, ask them to discuss how they think this section begins. Is it the same as the body paragraph from “Award-Winning Survival Skills”? Is it different? 	<ul style="list-style-type: none"> Throughout this unit and Unit 3, students read a series of mentor texts. Mentor texts are model texts, written by real authors, that students examine to see strong examples of writing craft. In this unit, students analyze various examples of informational texts. For more information on the use of mentor texts, read <i>Study Driven</i> by Katie Wood Ray.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Invite partnerships to find another partnership to share their thinking. Once the foursome has a collective understanding of how the introduction was designed, ask them all to raise their hands so that they form a silent “tepee” of hands.• When all groups have their hands up, ask one person from each group to share. Listen for responses like: “This one started by describing how a monarch butterfly uses its poison,” “This paragraph gives an example of the focus statement from the introduction paragraph,” or “This paragraph gives details that support the topic of the section introduced in the introduction.”• Document their observations on the chart by writing in the left-hand column:<ul style="list-style-type: none">– Body Paragraph #2:<ul style="list-style-type: none">• Gives example that support the topic of the section• Describes the example using details and evidence• Post a copy of the body paragraph in the right-hand column.	
<p>C. Guided Practice: Writing a Body Paragraph and a Concluding Statement (10 minutes)</p> <ul style="list-style-type: none">• Tell students that they will need to include a concluding statement in their writing. Ask:<ul style="list-style-type: none">* “How does a concluding statement help a reader understand a text?”• Listen for responses such as: “It sums up or wraps up the writing for the reader” or “It reminds the reader what the main topic of the writing was.” Ask:<ul style="list-style-type: none">* “Where would it make sense to include the concluding statement? In the beginning, middle, or end of the piece? Why?”• Listen for responses like: “The end, because it restates and wraps the writing up.”• Explain that, like the focus statement, the concluding statement answers the focus question and reminds the reader what the piece is about. Tell students that it should answer the focus question in a different way than the focus statement, and that this is called <i>restating</i>.• Invite students to take out their Informative Page Planning graphic organizer.• Point out the focus question at the top of the graphic organizer and cold call a student to read it aloud:<ul style="list-style-type: none">* “How does my expert group animal use its body and behaviors to help it survive?”• Remind students that a focus statement is brief and to the point and answers the focus question, and that this is also true for the concluding statement.	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Rephrase the focus question so it is specific to the millipede and invite students to Think-Pair-Share. Ask:<ul style="list-style-type: none">* “How can we answer this question in a different way than we answered it as the focus statement? ‘How does the millipede use its body and behaviors to help it survive?’”• Listen for responses such as: “The millipede has many ways of protecting itself” or “The millipede protects itself by rolling into a ball and using poison.”• When students share out whole group, write examples that are different from the examples used for the focus statement in Lesson 8.• Choose one concluding statement from the student-generated list and write on the millipede Informative Page Planning graphic organizer in the Concluding Statement box. Be sure to display this for students to see.• Invite students to Ink-Pair-Share a concluding statement for their own piece, writing the concluding statement in the appropriate box on their Informative Page Planning graphic organizer. Give them 5 minutes to do so, circulating and supporting as needed. Look for students writing concluding statements that answer the focus question but are different from their focus statement.• Now tell students that you are going to focus on the middle part of the piece—the body paragraphs.• Ask them to help you draft one body paragraph of the millipede informative piece. Ask:<ul style="list-style-type: none">* “What should we refer to while drafting our body paragraph?”• Listen for responses like: “our planning graphic organizer” or “the introduction part of our graphic organizer.”• Invite students to turn and talk to a partner. Ask them to reread the millipede Informative Page Planning graphic organizer together. Ask:<ul style="list-style-type: none">* “Think about your ideas: What will be described in the first body paragraph?”• Use equity sticks to call on students to share what they talked about with their partner. Listen for responses like: “one of the millipede’s defense mechanisms” or “how the millipede rolls into a ball to protect itself.”• Drawing from the ideas students shared, write a sentence that introduces one of the millipede’s defense mechanisms (see the Millipede Informative Piece Draft in the supporting materials). Continue this process to write the rest of the body paragraph.• Invite students to chorally read the finished body paragraph about the millipede.	



Work Time (continued)	Meeting Students' Needs
<p>D. Drafting Body Paragraphs (20 minutes)</p> <ul style="list-style-type: none">• Invite students to take out their informative piece drafts begun in Lesson 8. Have more lined paper available for them if needed.• Tell students that they are about to complete a draft of their body paragraphs for their informative page. Remind them that since it is a first draft, it does not have to be perfect.• Students should reference the criteria on the Informative Page Directions and be encouraged to refer frequently to the Effective Body Paragraphs anchor chart when drafting.• Remind them that when they write a draft, they should skip lines so they have room to make revisions and edits later in the writing process.• Give students 20 minutes to write their body paragraphs. Circulate and support them as needed. Be sure to confer with students whom you observed struggling with planning their writing in Lesson 7 and drafting in Lesson 8. Help them to focus on getting their ideas down on paper as opposed to worrying about spelling or grammar. Remind them that they will edit their writing toward the end of the writing process.• Remind students to include their concluding statement at the end of their second body paragraph, as it will not have its own paragraph.	<ul style="list-style-type: none">• During independent work, the teacher can support students with special needs or ELLs as needed. Just be sure to let them, too, struggle with the task, as successful completion after considerable effort builds both stamina and confidence.



Closing and Assessment	Meeting Students' Needs
<p>A. Share (5 minutes)</p> <ul style="list-style-type: none">• Invite students to meet with the partner from the Closing of Lesson 8.• Ask them to read their body paragraphs aloud to their partner. While one partner reads his or her body paragraphs aloud, the other partner should listen for the required information (description of one defense mechanism of their expert group animal in each paragraph and the concluding statement), providing feedback about whether anything is missing. Then, the partners should repeat, switching roles.• Explain that, for homework, students should finish drafting their body paragraphs or adding any missing information based on their partner's feedback.	
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Finish your body paragraphs.• In your Expert Group Animal research journal, complete a 3rd draft sketch on the Sketch Page. .	



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 9

Supporting Materials



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Developing Body Paragraphs Anchor Chart
(For Teacher Reference)

Teacher Directions: Write the following on chart paper to create this anchor chart.

Developing Body Paragraphs

*** Paragraphs are grouped with related facts and evidence.**

*** Facts and details are used to describe the topic.**

Description of Body Paragraphs	Example Text



Millipede Informative Piece Draft
(For Teacher Reference)

Teacher directions: This is a sample of what may be created with students during Work Time C. Note that the introduction paragraph was written in Lesson 8. This model will be added to in subsequent lessons; there are conventions mistakes in it intentionally that will be used to model editing in Lesson 11.

The millipede is a relative of the centipede. they have twenty to one hundred body segments, and too pairs of legs on each segment. Millipedes like to be in damp areas. In the wild, they live on moist forest floors. Some millipedes live in our houses! They like to live in bathrooms and basements because they're damp. Millipedes aren't fast. They roll into balls and eat leaves or decayin vegetation. Their main predators are ants, toads, and mice. To protect themselves from predators, millipedes have two main defense mechanisms. When they're near a predator, they might roll into a ball or ooze poison.

Some millipedes use poison to protect themselves. They do this when the predator touches them. Some poison is sticky. When the poison gets on the predator, it slows the predator down. Another poison is gas, and can be very strong. Some gas is so strong that it can paralyze or kill the predator. Sometimes, other animals rub millipedes all over their bodies to use the poison to repel insects. The millipedes don't often use their poison, though. They would rather not be attacked in the first place! Millipedes are very special critters. They have unusual and interesting defense mechanisms that keep them safe from predators.



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 10

Writing Informational Texts: Revising for Supporting Details and Word Choice



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)	
<p>I can develop the topic with facts, definitions, details, and quotations. (W.4.2b)</p> <p>I can use precise, content-specific language/vocabulary to inform or explain about a topic. (W.4.2d)</p> <p>I can express ideas using carefully chosen words. (L.4.3a)</p> <p>I can accurately use fourth-grade academic vocabulary to express my ideas. (L.4.6)</p>	
Supporting Learning Targets	Ongoing Assessment
<ul style="list-style-type: none">• I can revise my writing for accurate facts with related evidence using my planning graphic organizer.• I can use vocabulary from my research on animal defense mechanisms to write accurate descriptions in my informative piece.	<ul style="list-style-type: none">• Revisions of informative piece



Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Engaging the Writer: Think-Pair-Share (5 minutes)B. Reviewing Learning Targets (5 minutes)2. Work Time<ol style="list-style-type: none">A. Revising for Supporting Details (15 minutes)B. Independent Practice: Revising for Supporting Details (10 minutes)C. Revising for Word Choice (10 minutes)D. Independent Practice: Revising for Word Choice (10 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Setting a Revision Goal (5 minutes)4. Homework<ol style="list-style-type: none">A. Finish revising.	<ul style="list-style-type: none">• In this lesson, students begin revising the informative page for their performance task. They should have completed their drafts for homework after Lesson 9; if they have not completed their drafts, provide time before this lesson for them to do so.• Students Think-Pair-Share to open the lesson. With partners, they think about whether they have included details and accurate descriptions in their writing. This exercise gets them thinking about today's lesson topic and gives the teacher an opportunity to gauge where students stand with these ideas in general and in relation to their writing.• During Word Times A and C, the teacher models revising the Millipede Informative Piece Draft to add supporting details and vocabulary. Note that the Millipede Informative Piece Draft with Revisions in the supporting materials provides example revisions. When revising for word choice, be sure to include examples of ways to define words in context using parentheses or commas, as this is part of the standard that is often missed.• Following both Work Times A and C, students are given time for independent practice. During this time, they make revisions to their own informative piece drafts. They use green and red colored pencils to make their revisions, and they do so in the extra lines they left when first drafting their pieces.• If your district has printed lessons for you in black and white, it may be helpful to view this lesson in color. Go to EngageNY.org or commoncoresuccess.elschools.com and search for 5th grade, Module 2B, Unit 2 lessons.• In the Closing, students set two revision goals to complete for homework.• In advance:<ul style="list-style-type: none">– Create and post the Steps for Revising My Writing anchor chart (see supporting materials).– Review the Millipede Informative Piece Draft with Revisions and make changes if necessary, based on the needs of your class.– Gather colored pencils.• Post: Informational Texts anchor chart; Animal Defense Mechanisms Word Wall; learning targets.



Lesson Vocabulary	Materials
supporting details	<ul style="list-style-type: none">• Informative piece drafts (from Lesson 8; one per student)• Informational Texts anchor chart (begun in Lesson 7)• Informative Page Planning graphic organizer (from Lesson 7; one per student and one to display)• Millipede Informative Piece Draft (one for display)• Equity sticks• Millipede Informative Piece Draft with Revisions (for teacher reference)• Green colored pencils (one per student)• Steps for Revising My Writing anchor chart (new; teacher-created; see supporting materials)• Animal Defenses research journals (from Unit 1, Lesson 1; one per student)• Expert Group Animal research journals (from Lesson 2; one per student and one to display)• Animal Defense Mechanisms Word Wall (from Unit 1, Lesson 3)• Red colored pencils (one per student)• Informative Page Directions (from Lesson 7; one per student and one to display)



Opening	Meeting Students' Needs
<p>A. Engaging the Writer: Think-Pair-Share (5 minutes)</p> <ul style="list-style-type: none">• Ask students to take out their informative piece drafts and Think-Pair-Share with a nearby partner:<ul style="list-style-type: none">* “Does your writing include details that support the topic? Why or why not?”* “Does your writing include accurate descriptions and definitions? Why or why not?”• Circulate and listen in to gauge students’ understanding of using supporting details and accurate descriptions and definitions in their informative writing.	
<p>B. Reviewing Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Review the steps of the writing process by asking:<ul style="list-style-type: none">* “Where are we in the writing process for writing our informative pieces?”• Listen for students to say that they have finished planning and drafting their pieces and are now ready to revise their writing.• Direct students’ attention to the learning targets and read them aloud:<ul style="list-style-type: none">* “I can revise my writing for accurate facts with related evidence using my planning graphic organizer.”* “I can use vocabulary from my research on animal defense mechanisms to write accurate descriptions in my informative piece.”• Remind them that they have been working on drafting accurate informational pieces, and explain that today they will focus on revising their writing for <i>supporting details</i>. These details should be accurate and related to the topic.• Ask students to turn and talk:<ul style="list-style-type: none">* “What are supporting details?”• Listen for responses like: “They are facts, definitions, concrete details, quotations, or other information and examples that relate to and support the topic of the writing.”• Explain that for the first part of the lesson, students will learn about and then practice revising for supporting details. For the second part of the lesson, they will focus on revising for accurate and precise vocabulary.	<ul style="list-style-type: none">• Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. Revising for Supporting Details (15 minutes)</p> <ul style="list-style-type: none">• Remind students that they have been working on writing an informational text.• Ask them to turn and talk with a partner:<ul style="list-style-type: none">* “What are some key features of informational writing?”• Cold call students to share out. Listen for responses mentioning details from the Informational Texts anchor chart:<ul style="list-style-type: none">– Informational texts inform or teach a reader about a topic.– Informational texts have a topic sentence with evidence like facts and details that support the topic.– Informational texts have precise vocabulary.– Informational texts are based on research the author does before writing.– Informational texts have pictures or other visuals that support the text.• Point out that having details that support the topic sentence is one of the most important features of informational texts. Remind students that they spent a lot of time practicing identifying supporting details in informational texts when determining the main idea and summarizing in Unit 1.• Explain that now their job as authors is to ensure that there are accurate details that support the main idea of their writing so that their topic is developed with facts, definitions, concrete details, quotations, or other information and examples related to the topic.• Remind students that they planned for and recorded notes about these details on their Informative Page Planning graphic organizer. Invite them to take out this graphic organizer, along with their informative piece drafts.• Tell students that they can use their Informative Page Planning graphic organizer as a revision tool to check their draft for supporting details.• Model revising the Millipede Informative Piece Draft for supporting details using these steps:<ol style="list-style-type: none">1. Reread your draft while looking at the planning organizer and cross out supporting details on the planning graphic organizer that are included in the draft.2. Ask yourself: “Are there any supporting details that I didn’t include in my draft?”3. Ask yourself: “Should I include those details in my draft? Would it make my writing more informative?”4. Add in any supporting details into the draft.	<ul style="list-style-type: none">• Putting copies of anchor charts in students’ research folders will give them personal access to important information as they work independently.• Simplifying task directions and/or creating checklists from them are important steps in helping students learn to self-monitor their progress.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Ask students to think about, then talk with a partner:<ul style="list-style-type: none">* “Where else might I add a detail that develops the topic?”* “What fact, evidence, or example can I add that makes my writing more informative about the millipede’s defense mechanisms?”• Use equity sticks to call on one or two students to share what they and their partner suggest.• On the model paragraph, show how to annotate the draft by adding their suggested details with a green colored pencil. Refer to the Millipede Informative Piece Draft with Revisions for possible revisions.	



Work Time (continued)	Meeting Students' Needs
<p>B. Independent Practice: Revising for Supporting Details (10 minutes)</p> <ul style="list-style-type: none">• Distribute a green colored pencil to each student.• Tell students that they will be revise their own drafts. During their revising, they will add details that are accurate and develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to their topic.• Direct students to make their revisions using the green colored pencils.• Post the Steps for Revising My Writing anchor chart:<ul style="list-style-type: none">– Choose the correct colored pencil. Today's color is_____.– Decide where you are going to add a revision note based on feedback or new learning.– Write your revision note in the space above the sentence you want to change.– Read through your entire informative piece and continue to record your revision notes.– Review your revision notes to be sure they make sense.• Remind students that they skipped lines when they wrote their drafts in an effort to leave room for these revisions. Explain that these extra lines will make it easy for them to reread their drafts and make changes without having to erase or cross out phrases.• Give students 10 minutes to add supporting details to their drafts using the steps above. Circulate to confer with and support them as needed.	<ul style="list-style-type: none">• Consider having students who struggle with on-demand writing tasks work with a partner or small group when revising.



Work Time (continued)	Meeting Students' Needs
<p>C. Revising for Word Choice (10 minutes)</p> <ul style="list-style-type: none">• Bring students back together whole group. Direct their attention to the learning targets and read the first one aloud:<ul style="list-style-type: none">* “I can revise my writing for accurate facts with related evidence using my planning graphic organizer.”• Invite students to use the Fist to Five Checking for Understanding technique for their progress toward the learning target. Take note of any student who showed a fist, one, or two.• Direct students’ attention to the Informational Texts anchor chart and point to the third bullet:<ul style="list-style-type: none">* “Informational texts have precise vocabulary.”• Point out that authors of informational texts make sure to use accurate words and descriptions in their writing. Tell students they will now revise their drafts for precise vocabulary and accurate descriptions.• Remind them that they have been collecting vocabulary words in the glossaries of their Animal Defenses research journal and Expert Group Animal research journal and on the Animal Defense Mechanisms Word Wall.• Tell students that they can use these resources as revision tools to check their drafts for precise and accurate vocabulary.• Model revising the Millipede Informative Piece Draft for vocabulary using these steps (see the supporting materials for possible revisions):<ol style="list-style-type: none">1. Reread the glossaries of both research journals and the words on the Animal Defense Mechanisms Word Wall.2. Ask yourself: “Are there any words or definitions that I could use in my draft that would make it more accurate?” Write these words in the “Vocabulary from my research to be used” box on your Informative Page Planning graphic organizer.3. Ask yourself: “Are there any words or definitions that I could use in my draft that would make my writing more precise?” Write these words in the “Vocabulary from my research to be used” box on your Informative Page Planning graphic organizer.4. Reread your draft while looking at the planning organizer and add in any words or definitions to your draft.• Ask students to think about, then talk with a partner:<ul style="list-style-type: none">* “Where could I add words or definitions to make my writing more accurate or precise?”* “What words or definitions could I add?”• Use equity sticks to call on one or two students to share what they and their partner suggest.• On the model paragraph, show how to annotate the draft by adding their suggested words or definitions in red colored pencil.	



Work Time (continued)	Meeting Students' Needs
<p>D. Independent Practice: Revising for Word Choice (10 minutes)</p> <ul style="list-style-type: none">• Distribute a red colored pencil to each student.• Tell them that now they will revise their own drafts. During their revising, they will add words or definitions that are accurate and precise.• Direct students to make their revisions using the red colored pencils.• Point again to the Steps for Revising My Writing anchor chart:<ul style="list-style-type: none">– Choose the correct colored pencil. Today's color is_____.– Decide where you are going to add a revision note based on feedback or new learning.– Write your revision note in the space above the sentence you want to change.– Read through your entire informative piece and continue to record your revision notes.– Review your revision notes to be sure they make sense.• Remind students that they should write their words and definitions on the blank lines of their drafts.• Tell them they must add in at least three vocabulary words or definitions to their piece when revising.• Give students 10 minutes to add words and definitions to their drafts. Circulate to confer with and support them as needed.• Once students have made their revisions, have them organize their materials in their writing folder. Tell them that they will need to keep this draft as they continue to revise and edit during the coming week.	



Closing and Assessment	Meeting Students' Needs
<p>A. Setting a Revision Goal (5 minutes)</p> <ul style="list-style-type: none">• Explain that students will be able to finish their revisions for homework.• Ask them to set one or two revision goals to be completed for homework, based on the Informative Page Directions, as well as on their work in today's lesson. Remind them that today they focused on revising for supporting details and word choice.• Tell students to write their goal at the top of their informative piece drafts, and then ask them to share their goal with a partner.	<ul style="list-style-type: none">• Developing self-assessment and reflection supports all learners, but research shows it supports struggling learners most.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Finish your revisions.	



EXPEDITIONARY
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Grade 4: Module 2B: Unit 2: Lesson 10

Supporting Materials



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Millipede Informative Piece Draft
(For Teacher Reference)

Teacher directions: This model is to be used during Work Times A and C. Note that the introduction and last paragraphs are from Lessons 8 and 9. There are conventions mistakes in it intentionally that are used to model editing in Lesson 11. The model following this draft shows revisions to be made during the modeling in Work Times A and C.

The millipede is a relative of the centipede. they have twenty to one hundred body segments, and too pairs of legs on each segment. Millipedes like to be in damp areas. In the wild, they live on moist forest floors. Some millipedes live in our houses! They like to live in bathrooms and basements because they're damp. Millipedes aren't fast. They roll into balls and eat leaves or decayin vegetation. Their main predators are ants, toads, and mice. To protect themselves from predators, millipedes have two main defense mechanisms. When they're near a predator, they might roll into a ball or ooze poison.

When a predator is nearby, millipedes often roll into a ball. Because they have so many body segments, it's easy for them to bend and roll into a tight ball. They have hard exoskeletons. That protects the millipede's body. The ball hides the millipede from predators because it doesn't look like a millipede anymore! This is a very useful defense mechanism.

Some millipedes use poison to protect themselves. They do this when the predator touches them. Some poison is sticky. When the poison gets on the predator, it slows the predator down. Another poison is gas, and can be very strong. Some gas is so strong that it can paralyze or kill the predator. Sometimes, other animals rub millipedes all over their bodies to use the poison to repel insects. The millipedes don't often use their poison, though. They would rather not be attacked in the first place! Millipedes are very special critters. They have unusual and interesting defense mechanisms that keep them safe from predators.



Millipede Informative Piece Draft with Revisions
(For Teacher Reference)

Teacher directions: This model shows revisions to be made during the modeling in Work Times A and C. Changes in green indicate revisions for supporting details, and changes in red indicate revisions for word choice.

The millipede is a relative of the centipede. they have twenty to one hundred body segments, and too pairs of legs on each segment. Millipedes like to be in damp areas. In the wild, they live on moist forest floors. Some millipedes live in our houses! They like to live in bathrooms and basements because they're damp. Millipedes aren't fast. They roll into balls and eat leaves or decayin vegetation. Their main predators, **or animals that hunt and eat the millipede**, are ants, toads, and mice. To protect themselves from predators, millipedes have two main defense mechanisms. When they're near a predator, they might roll into a ball or ooze poison.

When a predator is nearby, millipedes often roll into a ball. Because they have so many body segments, it's easy for them to bend and roll into a tight ball. They have hard exoskeletons, **which means that their skeletons are on the outside of their bodies; this makes the ball hard too**. That protects the millipede's body. The ball hides the millipede from predators because it doesn't look like a millipede anymore! **A toad looking for lunch might easily mistake a tiny rolled up millipede for a pebble and pass it by!** This is a very useful defense mechanism.



Millipede Informative Piece Draft with Revisions
(For Teacher Reference)

Some millipedes **use emit** poison to protect themselves. They do this when the predator **threatens or** touches them. Some poison is sticky. When the poison gets on the predator, it slows the predator down **which gives the slow millipede time to escape**. Another poison is gas, and can be very strong. Some gas is so strong that it can paralyze or kill the predator. **Some millipedes have poison that smells, and when predators smell it they run away**. Sometimes, other animals rub millipedes all over their bodies to use the poison to repel insects. The millipedes don't often use their poison, though. They would rather not be attacked in the first place! Millipedes are very special critters. They have unusual and interesting defense mechanisms that keep them safe from predators.



Steps for Revising My Writing Anchor Chart
(For Teacher Reference)

Teacher directions: Write the following on chart paper to create this anchor chart.

Steps for Revising My Writing

- Choose the correct colored pencil. Today's color is_____.
- Decide where you are going to add a revision note based on feedback or new learning.
- Write your revision note in the space above the sentence you want to change.
- Read through your entire informative piece and continue to record your revision notes.
- Review your revision notes to be sure they make sense.



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 11

Writing Informational Texts: Editing for Conventions



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

With support from peers and adults, I can use the writing process to produce clear and coherent writing. (W.4.5)

I can correctly use homophones (e.g., *to, too, two; there, their*). (L.4.1g)

I can use correct capitalization in my writing. (L.4.2a)

I can spell grade-appropriate words correctly. (L.4.2d)

I can use resources to check and correct my spelling. (L.4.2d)

Supporting Learning Targets

- I can check my peers' work for correct capitalization.
- I can check my peers' work for correct spelling.

Ongoing Assessment

- Edits of informative piece



Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Engaging the Writer: Whip-around (5 minutes)B. Reviewing Learning Targets (5 minutes)2. Work Time<ol style="list-style-type: none">A. Guided Practice: Editing for Conventions (15 minutes)B. Guided Practice: Editing for Homophones (10 minutes)C. Editing Stations (20 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Debrief (5 minutes)4. Homework<ol style="list-style-type: none">A. Continue reading your independent reading book for this unit.	<ul style="list-style-type: none">• This lesson focuses on helping students edit their informative piece drafts for conventions. In particular, they focus on spelling, capitalization, and homophones.• Before students complete edits on their own drafts, the teacher guides them through the process. To do this, two editing stations are created: one for spelling and one for capitalization. As in previous lessons, the teacher models how to make edits based on the Millipede Informative Piece Draft. (Note that the Millipede Informative Piece Draft with Revisions in the supporting materials provides example revisions.) Then, students are released to visit the editing stations and work with a partner to improve their drafts.• Students are also guided through a mini lesson on homophones and work with a partner to create example sentences using homophones.• At the end of the lesson, collect students' most recent informative piece drafts, with their revisions from Lesson 10 and edits from this lesson. Students will publish their informative pieces in Lesson 2 of Unit 3; use the time in between this lesson and Unit 3, Lesson 2 to read and give feedback to students on their writing.• If your district has printed lessons for you in black and white, it may be helpful to view this lesson in color. Go to EngageNY.org or commoncoresuccess.elschools.com and search for 5th grade, Module 2B, Unit 2 lessons.• In advance:<ul style="list-style-type: none">– Set up editing stations. Ideally these stations will have enough room for about half of your class to sit. Students should be able to see the Spelling Conventions and Capitalization Conventions anchor charts, have access to colored pencils (designate one color for spelling mistakes and one color for capitalization mistakes and place these at the appropriate stations) and have a surface to write on (table/desks or clipboards).– Review the Millipede Informative Piece Draft and make changes if necessary, based on the needs of your class.• Post: Spelling Conventions and Capitalization Conventions anchor charts; learning targets.



Lesson Vocabulary	Materials
spelling, homophone, capitalization, publish	<ul style="list-style-type: none"> • Spelling Conventions anchor chart (new; co-created with students during Work Time A) • Capitalization Conventions anchor chart (new; co-created with students during Work Time A) • Millipede Informative Piece Draft (one for display) • Millipede Informative Piece Draft with Revisions (for teacher reference) • Colored pencils (one of each color per student) • Common Affixes handout (from Unit 1, Lesson 12; one per student and one to display) • Informative piece drafts (one per student)

Opening	Meeting Students' Needs
<p>A. Engaging the Writer: Whip-around (5 minutes)</p> <ul style="list-style-type: none"> • Review the Whip-around protocol with students. Using this protocol, ask: <ul style="list-style-type: none"> * “What is one supporting detail or word choice revision you are proud of from the last lesson?” • Validate student responses and summarize what they were proud of. This may sound something like: <ul style="list-style-type: none"> * “Great revisions! I heard several of you say that you added the definition of the word <i>predator</i> to your writing.” 	
<p>B. Reviewing Learning Targets (5 minutes)</p> <ul style="list-style-type: none"> • Remind students that they have been working through the writing process to write an informational text. Ask them which parts of the writing process they have completed so far. • Listen for them to share that they have planned, drafted, and revised their pieces. • Direct students' attention to the learning targets and read them aloud: <ul style="list-style-type: none"> * “I can check my peers' work for correct capitalization.” * “I can check my peers' work for correct spelling.” • Tell students that today they will move to the editing stage of the writing process and will edit their informative pieces for the conventions listed in the supporting targets. Circle the key words: <i>spelling</i> and <i>capitalization</i>. Clarify the meanings of these words or targets as needed. 	<ul style="list-style-type: none"> • Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. Guided Practice: Editing for Conventions (15 minutes)</p> <ul style="list-style-type: none">Point out the two editing stations. Read the Spelling Conventions anchor chart at the first station:<ul style="list-style-type: none">* “How can I make sure my SPELLING is correct?”Cold call students to share out their responses to question on the Spelling Conventions anchor chart and record their responses on the anchor chart.Circle or add important tips for this question. Be sure these are on the chart: breaking down words using prefixes and suffixes, checking the research journal glossaries or research texts, and thinking about whether the word is a common <i>homophone</i>. Explain that you will discuss homophones in more depth later in the lesson.Repeat this process for capitalization, asking the question:<ul style="list-style-type: none">* “How do I know if my CAPITALIZATION is correct?”Be sure to note that students’ expert group animal is not a proper noun and should not be capitalized. Record student responses on the Capitalization Conventions anchor chart.Tell students that they will use these conventions anchor charts later in the lesson.Display the Millipede Informative Piece Draft. Use the first few sentences of the draft to model, referring to the Millipede Informative Piece Draft with Revisions (for teacher reference) as needed. Demonstrate how to edit for each convention by circling or underlining with the correct colored pencil (see Teaching Notes). Be sure to model referring to the Spelling Conventions and Capitalization Conventions anchor charts posted at each editing station as resources, and be sure to model spelling mistakes in affixes and homophones.For example: Read aloud the Millipede Informative Piece Draft. Notice a mistake and think aloud by saying something like:<ul style="list-style-type: none">* “I notice that one of the rules for capitalization is to be sure the first word of each sentence is capitalized.”Then, demonstrate fixing a mistake. Say:<ul style="list-style-type: none">* “I see that I did not do this when I wrote the second sentence, so I am going to circle it with a colored pencil from this station.”	<ul style="list-style-type: none">Anchor charts provide a visual cue to students about what to do when you ask them to work independently. They also serve as note-catchers when the class is co-constructing ideas.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"> Continue modeling, and reading aloud the Millipede Informative Piece Draft. Notice another mistake and think aloud by saying something like: <ul style="list-style-type: none"> * "I notice that one hint is to think about if the word has any common prefixes or suffixes." Then, demonstrate fixing the mistake. Say: <ul style="list-style-type: none"> * "I'm not sure if I spelled the word 'decaying' right in this sentence in the first paragraph: 'They roll into balls and eat leaves or decaying vegetation.' I think it ends with a suffix. I'm going to look at my Common Affixes handout from Unit 1, Lesson 12 and check to see if there's a suffix on here that I hear in the word 'decaying.' On that handout, I see the suffix -ing! That's how the word 'decaying' ends. I'll circle 'decaying' on my draft with a colored pencil from this station and write '-ing' above it." Address any clarifying questions. 	
<p>B. Guided Practice: Editing for Homophones (10 minutes)</p> <ul style="list-style-type: none"> Explain that homophones are words that sound the same but have different meanings and usually different spellings. Ask students to brainstorm some common homophones and ask for volunteers to share out. Record their responses on the Spelling Conventions anchor chart by that bullet point. Record homophones such as: <ul style="list-style-type: none"> – two, to, too – they're, their, there – ant, aunt – ate, eight – be, bee – dear, deer – for, four, fore – heard, herd – its, it's – tail, tale – your, you're 	<ul style="list-style-type: none"> Consider creating groups or partnerships in advance rather than allowing students to choose partners. For students who struggle with following multiple-step directions, consider displaying these directions using a document camera or interactive white board. Another option is to type up these instructions for students to have in hand.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Choose one of the common homophones suggested by students and invite them to work with a partner to write two sentences. Explain that each sentence should include one of the homophones. Provide an example if necessary.• Give them 2 minutes to work and then use equity sticks to call on students to share their sentences whole class. An example might be: "The ant climbed up the log" and "My aunt visited for dinner last night."• Next, ask students to rewrite their sentences, replacing the correct homophone with the incorrect homophone.• Ask students to read their sentences aloud to their partner and discuss how the meaning of their sentences changed.• Give them 2 minutes and then use equity sticks to call on students to share their new sentences whole class, and how the meaning of their sentences changed. Listen for responses like: "My new sentence is: The aunt climbed up the log. The meaning changed because in my original sentence, it meant an insect climbed up a log but in the new sentence, it meant a person climbed up a log."• Ask:<ul style="list-style-type: none">* "Why is it important to be sure to use the correct homophone in our writing?"• Listen for responses like: "so our reader is not confused" or "so our writing is accurate."• Model revising a spelling mistake for a homophone in the Millipede Informative Piece Draft. Notice a mistake and think aloud by saying something like:<ul style="list-style-type: none">* "I notice that one hint is to think about if the word is a homophone."• Then, demonstrate fixing a mistake. Say:<ul style="list-style-type: none">* "I know that two, to, and too are homophones, and I see that I used 'too' in this sentence in the first paragraph: 'They have twenty to one hundred body segments, and too pairs of legs on each segment.' I'm going to think about what 'too' means and if I used the right spelling here. In my writing, I mean the number two, but I know that 'too' means 'also.' So I need to fix the spelling of that word. I'll circle it on my draft with a colored pencil from this station and write 'two' above it."• Address any clarifying questions.	



Work Time (continued)	Meeting Students' Needs
<p>C. Editing Stations (20 minutes)</p> <ul style="list-style-type: none">• Tell students that they are going to go to both editing stations to get help from peers to improve their informative piece drafts. Give directions:<ol style="list-style-type: none">1. Count off or choose one station to begin work.2. Take your informative piece draft with you to your first station.3. At that station, trade papers with a partner.4. Read your partner's draft (with revisions for supporting details and vocabulary from Lesson 10) and identify any convention mistakes related to the topic at that station's chart.5. When both partners are finished, move to the next station.6. Be sure to get to both stations.• Dismiss students to the stations.• Circulate and confer with pairs who may need extra support. Be sure that all students get to both stations. After about 10 minutes, remind them to rotate to the other station. Pairs that finish early can begin revising and typing, if these facilities are available.• At the end of the lesson, collect students' most recent informative piece drafts.	<ul style="list-style-type: none">• In addition to the Conventions anchor charts, a conventions checklist can be prepared beforehand to support ELLs or students with special needs during editing.• Consider several options if students need more structured management of movement. Partners can raise their hands when they are done at a given station and check with you before they move on. Or students can remain in one place and all materials can be available where they are working.



Closing and Assessment	Meeting Students' Needs
<p>A. Debrief (5 minutes)</p> <ul style="list-style-type: none">• Gather students whole group.• Redirect their attention to the learning targets and read them aloud.• Tell students that they have learned a lot over the last couple weeks about researching and writing informational texts by writing an informational page about their expert group animal. Tell them that in the next lesson, they will be assessed on the focus question listed at the top of their Informative Page Planning graphic organizer: “How does my expert group animal use its body and behaviors to help it survive?” To do this, they will do an on-demand assessment in which they write <u>another</u> informational piece about animal defense mechanisms for a different animal.• Assure them that they are ready for this “on my own” assessment. They have just finished their informational pages about their expert group animals and now should be experts on this genre of writing.	<ul style="list-style-type: none">• Developing self-assessment and reflection supports all learners, but research shows it supports struggling learners most.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Continue reading your independent reading book for this unit.	



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 11

Supporting Materials



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Millipede Informative Piece Draft
(For Teacher Reference)

Teacher directions: This model is to be used during Work Time A; there are conventions mistakes in it intentionally that are used to model editing. The model following this draft shows edits to be made during the modeling in Work Time A.

The millipede is a relative of the centipede. they have twenty to one hundred body segments, and too pairs of legs on each segment. Millipedes like to be in damp areas. In the wild, they live on moist forest floors. Some millipedes live in our houses! They like to live in bathrooms and basements because they're damp. Millipedes aren't fast. They roll into balls and eat leaves or decayin vegetation. Their main predators, **or animals that hunt and eat the millipede**, are ants, toads, and mice. To protect themselves from predators, millipedes have two main defense mechanisms. When they're near a predator, they might roll into a ball or ooze poison.

When a predator is nearby, millipedes often roll into a ball. Because they have so many body segments, it's easy for them to bend and roll into a tight ball. They have hard exoskeletons, **which means that their skeletons are on the outside of their bodies; this makes the ball hard too**. That protects the millipede's body. The ball hides the millipede from predators because it doesn't look like a millipede anymore! **A toad looking for lunch might easily mistake a tiny rolled up millipede for a pebble and pass it by!** This is a very useful defense mechanism.



Millipede Informative Piece Draft
(For Teacher Reference)

Some millipedes **use emit** poison to protect themselves. They do this when the predator **threatens or** touches them. Some poison is sticky. When the poison gets on the predator, it slows the predator down **which gives the slow millipede time to escape**. Another poison is gas, and can be very strong. Some gas is so strong that it can paralyze or kill the predator. **Some millipedes have poison that smells, and when predators smell it they run away**. Sometimes, other animals rub millipedes all over their bodies to use the poison to repel insects. The millipedes don't often use their poison, though. They would rather not be attacked in the first place! Millipedes are very special critters. They have unusual and interesting defense mechanisms that keep them safe from predators.



Millipede Informative Piece Draft with Revisions
(For Teacher Reference)

Teacher directions: This model shows edits to be made during the modeling in Work Time A. Changes in blue indicate edits for capitalization, and changes in purple indicate edits for spelling.

The millipede is a relative of the centipede. **T**hey have twenty to one hundred body segments, and **two** pairs of legs on each segment. Millipedes like to be in damp areas. In the wild, they live on moist forest floors. Some millipedes live in our houses! They like to live in bathrooms and basements because they're damp. Millipedes aren't fast. They roll into balls and eat leaves or **decaying** vegetation. Their main predators, **or animals that hunt and eat the millipede**, are ants, toads, and mice. To protect themselves from predators, millipedes have two main defense mechanisms. When they're near a predator, they might roll into a ball or ooze poison.

When a predator is nearby, millipedes often roll into a ball. Because they have so many body segments, it's easy for them to bend and roll into a tight ball. They have hard exoskeletons, **which means that their skeletons are on the outside of their bodies; this makes the ball hard too**. That protects the millipede's body. The ball hides the millipede from predators because it doesn't look like a millipede anymore! **A toad looking for lunch might easily mistake a tiny rolled up millipede for a pebble and pass it by!** This is a very useful defense mechanism.



Millipede Informative Piece Draft with Revisions
(For Teacher Reference)

Some millipedes **use emit** poison to protect themselves. They do this when the predator **threatens or** touches them. Some poison is sticky. When the poison gets on the predator, it slows the predator down, **which gives the slow millipede time to escape**. Another poison is gas, and can be very strong. Some gas is so strong that it can paralyze or kill the predator. **Some millipedes have poison that smells, and when predators smell it they run away**. Sometimes, other animals rub millipedes all over their bodies to use the poison to repel insects. The millipedes don't often use their poison, though. They would rather not be attacked in the first place! Millipedes are very special critters. They have unusual and interesting defense mechanisms that keep them safe from predators.



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 12

End of Unit 2 Assessment: Writing an Informative Text about Pufferfish Defense Mechanisms



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

I can accurately synthesize information from two texts on the same topic. (RI.4.9)
I can write informative/explanatory texts that convey ideas and information clearly. (W.4.2)
I can produce writing that is appropriate to task, purpose, and audience. (W.4.4)
I can conduct a research project to become knowledgeable about a topic. (W.4.7)
I can document what I learn about a topic by taking notes. (W.4.8)
I can sort my notes into categories. (W.4.8)

Supporting Learning Target

- I can synthesize information from my research notes onto a planning graphic organizer.
- I can group together facts from my research with related evidence in my informative piece.
- I can plan and write a draft of an informative piece describing the pufferfish and its defense mechanisms.

Ongoing Assessment

- End of Unit 2 Assessment
- Tracking My Progress, End of Unit 2 recording form



Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Reviewing Learning Targets (5 minutes)2. Work Time<ol style="list-style-type: none">A. End of Unit 2 Assessment: Writing an Informative Text about Pufferfish Defense Mechanisms (50 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Reflecting on Learning Targets—Tracking My Progress (5 minutes)4. Homework<ol style="list-style-type: none">A. Continue reading your independent reading book for this unit.	<ul style="list-style-type: none">• Students complete the End of Unit 2 Assessment during this lesson. For this assessment, they plan and write an informative piece about the pufferfish. They will use the texts read for the Mid-Unit 2 Assessment as well as the notes taken during that assessment. Since students are already familiar with the texts, a large part of their focus can rest on planning and writing. With this added emphasis on writing time, it's possible that your assessment of students' progress toward mastering the Writing Standards addressed by this assessment will be more accurate.• If students receive accommodations for assessments, communicate with the cooperating service providers regarding the practices of instruction in use during this study as well as the goals of the assessment.• For some students, this assessment may require more than the 50 minutes allotted. Consider providing time over multiple days if necessary.• After the End of Unit 2 Assessment, students reflect on the learning targets on the Tracking My Progress, End of Unit 2 recording form. This exercise is meant to provide them with time to formally keep track of and reflect on their own learning.• In advance: Gather students' Mid-Unit 2 Assessments and notes.• Post: Guiding Questions anchor chart; learning targets.

Lesson Vocabulary	Materials
Do not preview vocabulary for this assessment lesson.	<ul style="list-style-type: none">• Guiding Questions anchor chart (begun in Unit 1, Lesson 1)• Equity sticks• End of Unit 2 Assessment: Writing an Informative Text about Pufferfish Defense Mechanisms (one per student)• Mid-Unit 2 Assessment texts and research notes (students' copies; from Lesson 6)• End of Unit 2 Assessment: Writing an Informative Text about Pufferfish Defense Mechanisms (answers, for teacher reference)• Tracking My Progress, End of Unit 2 recording form (one per student)



Opening	Meeting Students' Needs
<p>A. Reviewing Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Display the Guiding Questions anchor chart. Use equity sticks to call on a student to read the questions aloud:<ul style="list-style-type: none">* “How do animals’ bodies and behaviors help them survive?”* “How can a writer use knowledge from their research to inform and entertain?”• Tell students that today they will complete a formal assessment in which they will do on their own much of what they have been practicing, to demonstrate whether they are able to:<ul style="list-style-type: none">– Synthesize information from informational texts.– Plan for and write an introduction paragraph, including a focus statement, about an animal.– Plan for and write body paragraphs, including a conclusion statement, about that animal’s defense mechanisms.– Revise and edit the writing.• Remind them that they will need to refer to the text to respond to the prompt thoroughly. Encourage students to do their best. Let them know that this is a chance to show what they know and how much effort they are making to read carefully and identify important details in an informational text. This also is an opportunity to discover even more about animal defense mechanisms.• Direct students’ attention to the learning targets and ask them to read the targets silently to themselves:<ul style="list-style-type: none">* “I can synthesize information from my research notes onto a planning graphic organizer.”* “I can group together facts from my research with related evidence in my informative piece.”* “I can plan and write a draft of an informative piece describing the pufferfish and its defense mechanisms.”• Have students give a thumbs-up if they are clear on what they will be expected to do, a thumbs-sideways if they understand part but not all of what to do, and a thumbs-down if they are very unsure about what they should do. Address any clarifying questions before beginning the assessment.	<ul style="list-style-type: none">• Discussing and clarifying the language of learning targets helps build academic vocabulary.



Work Time	Meeting Students' Needs
<p>A. End of Unit 2 Assessment: Writing an Informative Text about Pufferfish Defense Mechanisms (50 minutes)</p> <ul style="list-style-type: none">• Distribute the End of Unit 2 Assessment: Writing an Informative Text about Pufferfish Defense Mechanisms and Mid-Unit 2 Assessment texts and research notes.• Tell students that they will use the texts read for the Mid-Unit 2 Assessment and their notes taken during that assessment on today's end of unit assessment.• While students are taking the assessment, circulate to monitor their test-taking skills. Prompt them throughout the assessment, letting them know how much time they have left and encouraging them to continue working. This is an opportunity to analyze students' behaviors while taking an assessment. Document strategies students are using during the assessment. For example, look for those who are annotating their text, using their graphic organizers to plan and revise their writing, and referring to the text as they respond to the prompt.	<ul style="list-style-type: none">• If students receive accommodations for assessments, communicate with the cooperating service providers regarding the practices of instruction in use during this study as well as the goals of the assessment.• For some students, this assessment may require more than the 50 minutes allotted. Consider providing time over multiple days if necessary.



Closing and Assessment	Meeting Students' Needs
<p>A. Reflecting on Learning Targets—Tracking My Progress (5 minutes)</p> <ul style="list-style-type: none">• Congratulate students on their hard work on the end of unit assessment.• Distribute the Tracking My Progress, End of Unit 2 recording form.• Remind students that successful learners keep <i>track</i> and <i>reflect</i> on their own learning. Point out that they have been doing this informally all year during debriefs, when they consider how well they are progressing toward the learning targets.• Review Step 1 in the self-assessment and remind students that this is where you would like them to explain what the target means to them. For example, the first target uses the phrase “synthesize information from my research notes.” They should write what this means in their own words, by explaining what it means to synthesize and how it is done.• Point out the second step and explain that this is similar to the thumbs-up, -sideways, or -down that they have used in previous lessons. They should also explain why they think they “need more help,” “understand some,” or are “on the way,” and give examples. Consider giving students an example such as: “I circled that I need understand some because I don’t think I use enough facts from my research.”• Collect students’ Track My Progress, End of Unit 2 recording forms to use as a formative assessment to guide instructional decisions during Unit 3.	<ul style="list-style-type: none">• Developing self-assessment and reflection supports all students, but research shows it supports struggling learners the most.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Continue reading your independent reading book for this unit.	



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 2: Lesson 12

Supporting Materials



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End of Unit 2 Assessment:

Writing an Informative Text about Pufferfish Defense Mechanisms

Part 1 directions:

- 1.) Read the prompt below.
- 2.) Using the texts and your research notes from the Mid-Unit 2 Assessment, plan an informative written piece for the prompt. (*RI.4.9, W.4.2, W.4.4, W.4.7*)

Prompt:

Review your research from the Mid-Unit 2 Assessment about the pufferfish's defense mechanisms. Then, use the evidence you have gathered to write an informative piece that describes two defense mechanisms of the pufferfish. Be sure to do the following in your piece:

_____ Introduce the pufferfish, including a focus statement that states the main idea of the piece.
(*W.4.2a*)

_____ Use paragraphs to group related facts and evidence. (*W.4.2a*)

_____ Use facts and details to describe two of the pufferfish's defense mechanisms. (*W.4.2b, W.4.8*)

_____ Use precise vocabulary to inform about the pufferfish. (*W.4.2d*)

_____ Provide a concluding statement that restates the focus statement. (*W.4.2e*)

_____ Synthesize information from at least two research sources. (*RI.4.9, W.4.7, W.4.8*)

_____ Use vocabulary from your research on animal defense mechanisms to accurate descriptions throughout the piece. (*W.4.2d, L.4.3a, L.4.6*)

_____ Use correct capitalization and spell fourth-grade words correctly.

Use the following planning graphic organizer to plan your informative piece before writing your draft.



Informative Page Planning Graphic Organizer

Focus Question: How does the pufferfish use its body and behaviors to help it survive?

Focus Statement:

Name:

Date:

Introduction Paragraph Describe the pufferfish.	Detail Paragraph 1 Describe one defense mechanism the pufferfish uses.
Detail Paragraph 2 Describe one defense mechanism the pufferfish uses.	Concluding Statement Restate your focus statement.
My Sources: List any sources you used in planning your informative piece.	Vocabulary from my research to be used:



Informative Page Planning Graphic Organizer

Part 2 directions: Write your informative piece on a separate sheet of lined paper.

Part 3 directions: Reread your informative piece and make any needed revisions or edits based on the directions in Part 1.



End of Unit 2 Assessment:

Writing an Informative Text about Pufferfish Defense Mechanisms
(Answers, for Teacher Reference)

Part 1 directions:

1. Read the prompt below.
2. Using the texts and your research notes from the Mid-Unit 2 Assessment, plan an informative written piece for the prompt. (*RI.4.9, W.4.2, W.4.4, W.4.7*)

Prompt:

Review your research from the Mid-Unit 2 Assessment about the pufferfish's defense mechanisms. Then, use the evidence you have gathered to write an informative piece that describes two defense mechanisms of the pufferfish. Be sure to do the following in your piece:

_____ Introduce the pufferfish, including a focus statement that states the main idea of the piece.
(*W.4.2a*)

_____ Use paragraphs to group related facts and evidence. (*W.4.2a*)

_____ Use facts and details to describe two of the pufferfish's defense mechanisms. (*W.4.2b, W.4.8*)

_____ Use precise vocabulary to inform about the pufferfish. (*W.4.2d*)

_____ Provide a concluding statement that restates the focus statement. (*W.4.2e*)

_____ Synthesize information from at least two research sources. (*RI.4.9, W.4.7, W.4.8*)

_____ Use vocabulary from your research on animal defense mechanisms to accurate descriptions throughout the piece. (*W.4.2d, L.4.3a, L.4.6*)

_____ Use correct capitalization and spell fourth-grade words correctly.

Use the following planning graphic organizer to plan your informative piece before writing your draft.



Informative Page Planning Graphic Organizer
(For Teacher Reference)

Focus Question: How does the pufferfish use its body and behaviors to help it survive?

Focus Statement:

The pufferfish protects itself in several ways.

Name: Pufferfish answer key

Date:

<p>Introduction Paragraph Describe the pufferfish.</p> <ul style="list-style-type: none"> ▪ round body ▪ small fins ▪ spines all over its body ▪ lives in coral reefs in warm, tropical oceans ▪ predator: tiger shark or barracuda 	<p>Detail Paragraph 1 Describe one defense mechanism the pufferfish uses.</p> <ul style="list-style-type: none"> ▪ inflates its body when a predator comes near or eats it ▪ inflates to three times its normal size ▪ swallows water until its stomach is completely full ▪ skin and stomach are stretchy and it doesn't have a rib cage, which allows the fish to inflate ▪ can kill its predator if it inflates in the predator's throat ▪ becomes too large for an enemy to swallow
<p>Detail Paragraph 2 Describe one defense mechanism the pufferfish uses.</p> <ul style="list-style-type: none"> ▪ It threatens its predator with spines. ▪ The spines are prickly. ▪ When it's inflated, the spines make the pufferfish look intimidating and scares the predator away. ▪ The spines hurt the predator when it tries to eat the pufferfish. 	<p>Concluding Statement Restate your focus statement.</p> <p>The pufferfish protects itself with its prickly spines and by inflating.</p>
<p>My Sources: List any sources you used in planning your informative piece. "Award-Winning Survival Skills" "All Puffed Up"</p>	<p>Vocabulary from my research to be used: inflate spines prickly</p>



Informative Page Planning Graphic Organizer
(For Teacher Reference)

Part 2 directions: Write your informative piece on a separate sheet of lined paper.

The round, spiny pufferfish uses its small fins to swim in the coral reef of a warm, tropical ocean. Its main predators, the tiger shark and the barracuda, think it's a harmless and easy prey. But the pufferfish protects itself in several ways.

The pufferfish's main defense mechanism is inflating its body when a predator comes near or tries to eat it. It can inflate to three times its normal size. It inflates by swallowing water until its stretchy stomach is completely full. Since it doesn't have a rib cage, the pufferfish can inflate easily. The pufferfish can kill its predator if it inflates in the predator's throat. If it inflates before the predator catches it, it is too big for the enemy to swallow.

Another way the pufferfish protects itself is by threatening its predator with its prickly spines. When it's inflated, the spines make the pufferfish look intimidating and scare the predator away. The spines also hurt the predator if it tries to eat the puffer. The pufferfish protects itself with its prickly spines and by inflating.

Part 3 directions: Reread your informative piece and make any needed revisions or edits based on the directions in Part 1.

Look for students to have revised their work for details that are scientifically accurate and develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic, as well as revising for word choice.

Look for students to have edited their work for appropriate spelling and capitalization.



Tracking My Progress, End of Unit 2

Name: _____

Date: _____

Learning target: I can synthesize information from my research notes onto a planning graphic organizer.

1. The target in my own words is:

2. How am I doing? Circle one.

**I need more help to
learn this**



I understand some of this



I am on my way!



3. The evidence to support my self-assessment is:



Tracking My Progress, End of Unit 2

Learning target: I can group together facts from my research with related evidence in my informative piece.

1. The target in my own words is:

2. How am I doing? Circle one.

**I need more help to
learn this**



I understand some of this



I am on my way!



3. The evidence to support my self-assessment is:



Tracking My Progress, End of Unit 2

Learning target: I can plan and write a draft of an informative piece describing an animal and its defense mechanisms.

1. The target in my own words is:

2. How am I doing? Circle one.

**I need more help to
learn this**



I understand some of this



I am on my way!



3. The evidence to support my self-assessment is:
