

# Grade 4: Module 2B: Unit 2: Overview



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Reading Closely and Writing to Learn: Animal Defense Mechanisms

### 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	<b>Reading and Researching the Defense Mechanisms of the Pufferfish</b> 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.



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### **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).



Calendared Curriculum Map:

Unit-at-a-Glance

### 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	• I can accurately synthesize information from two texts on the same topic. (RI 4.9)	• I can synthesize information from my notes into a paragraph.	Synthesis paragraph	<ul> <li>What Do Researchers Do? Anchor chart</li> <li>Performance Task anchor chart</li> <li>Guiding Questions anchor chart</li> </ul>
Lesson 2	Reading Informational Texts: Launching the Research Process	<ul> <li>I can explain what a text says using specific details from the text. (RI.4.1)</li> <li>I can make inferences using specific details from the text. (RI.4.1)</li> <li>I can use technology to collaborate with others to produce a piece of writing. (W.4.6)</li> </ul>	<ul> <li>I can make inferences based on information from pictures and text from an online source.</li> <li>I can support my inferences with details and examples from pictures and text from an online source.</li> <li>I can find the meanings of unfamiliar words to help me better understand a text.</li> </ul>	<ul> <li>Expert Group Animal Defense Mechanisms: KWL chart</li> <li>Expert Group Animal research guides</li> </ul>	<ul> <li>Close Readers Do These Things anchor chart</li> <li>Performance Task anchor chart</li> </ul>
Lesson 3	Reading Informational Texts: Reading Closely about Expert Group Animals on a Web Page	<ul> <li>I can explain what a text says using specific details from the text. (RI.4.1)</li> <li>I can make inferences using specific details from the text. (RI.4.1)</li> <li>I can summarize informational or persuasive text. (RI.4.2)</li> <li>I can use technology to collaborate with others to produce a piece of writing. (W.4.6)</li> </ul>	<ul> <li>I can make inferences based on information from pictures and text from an online source.</li> <li>I can support my inferences with details and examples from pictures and text from an online source.</li> <li>I can find the meanings of unfamiliar words to help me better understand a text.</li> <li>I can write a summary paragraph about my animal after closely reading a text.</li> </ul>	<ul> <li>Web Page research guide</li> <li>Expert group text summary</li> </ul>	<ul> <li>What Do Researchers Do? Anchor chart</li> <li>Close Readers Do These Things anchor chart</li> <li>Vocabulary Strategies anchor chart</li> </ul>



**Calendared Curriculum Map:** 

Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 4	Reading Informational Texts: Researching Expert Groups Animals	<ul> <li>I can explain what a text says using specific details from the text. (RI.4.1)</li> <li>I can make inferences using specific details from the text. (RI.4.1)</li> </ul>	<ul> <li>I can make inferences based on information from pictures and text.</li> <li>I can support my inferences with details and examples from pictures and texts.</li> <li>I can find the meanings of unfamiliar words to help me better understand a text.</li> </ul>	<ul> <li>Expert Group Animal Defense Mechanisms: KWL chart</li> <li>Research note-catcher</li> </ul>	<ul> <li>Performance Task</li> <li>Close Readers Do These Things anchor chart</li> <li>Jigsaw protocol</li> </ul>
Lesson 5	Reading Informational Texts: Researching Expert Group Animals and Collecting Vocabulary	<ul> <li>I can explain what a text says using specific details from the text. (RI.4.1)</li> <li>I can make inferences using specific details from the text. (RI.4.1)</li> <li>I can accurately synthesize information from two texts on the same topic. (RI 4.9)</li> </ul>	<ul> <li>I can make inferences based on information from pictures and text.</li> <li>I can support my inferences with details and examples from pictures and texts.</li> <li>I can find the meanings of unfamiliar words to help me better understand a text.</li> </ul>	<ul> <li>Research note-catcher</li> <li>Expert Group Animal Defense Mechanisms glossary</li> </ul>	<ul> <li>Vocabulary Strategies anchor chart</li> <li>Close Readers Do These Things anchor chart</li> </ul>
Lesson 6	Mid-Unit 2 Assessment: Reading and Research the Defense Mechanisms of the Pufferfish	<ul> <li>I can explain what a text says using specific details from the text. (RI.4.1)</li> <li>I can make inferences using specific details from text. (RI.4.1)</li> <li>I can summarize informational or persuasive text. (RI.4.2)</li> <li>I can conduct a research project to become knowledgeable about a topic. (W.4.7)</li> <li>I can document what I learn about a topic by taking notes. (W.4.8)</li> <li>I can use a variety of strategies to determine the meaning of words and phrases. (L.4.4 a and b)</li> </ul>	<ul> <li>I can make inferences based on information from a text.</li> <li>I can support my inferences with details and examples from a text.</li> <li>I can summarize a text using the main idea and supporting details found in the text.</li> </ul>	<ul> <li>Mid-Unit 2 Assessment: Reading and Researching the Defense Mechanisms of the Pufferfish</li> <li>Tracking My Progress, Mid- Unit 2 recording form</li> </ul>	



Calendared Curriculum Map:

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> <li>I can accurately synthesize information from two texts on the same topic. (RI.4.9)</li> <li>I can produce writing that is appropriate to task, purpose, and audience. (W.4.4)</li> <li>I can group supporting facts together about a topic in an informative/explanatory text. (W.4.2a)</li> <li>I can sort my notes into categories. (W.4.8)</li> </ul>	<ul> <li>I can identify characteristics of informative writing.</li> <li>I can synthesize information from my research notes onto a planning graphic organizer.</li> <li>I can group together facts from my research with related evidence in my informative piece.</li> </ul>	• Informative Page Planning graphic organizer	<ul> <li>Performance Task anchor chart</li> <li>Guiding Questions anchor chart</li> <li>Informational Texts anchor chart</li> </ul>
Lesson 8	Writing Informational texts: Crafting Introductions	• I can introduce a topic clearly. (W.4.2a)	<ul> <li>I can write an introduction paragraph for my informative piece that describes my expert group animal, its habitat, and its predators.</li> <li>I can write a focus statement that answers the focus question and tells the topic of my writing.</li> </ul>	• Draft of introduction paragraph	• Effective Introductions anchor chart
Lesson 9	Writing Informational Texts: Developing Body Paragraphs	<ul> <li>I can develop the topic with facts, definitions, details, and quotations. (W.4.2b)</li> <li>I can construct a concluding statement or section of an informative/explanatory text. (W.4.2e)</li> </ul>	<ul> <li>I can write body paragraphs for my informative piece that describe the defense mechanisms of my expert group animal.</li> <li>I can write a concluding statement for my informative piece that summarizes the defense mechanisms of my expert group animal.</li> <li>I can group together scientifically accurate facts with related evidence in my informative piece.</li> </ul>	• Draft of body paragraphs	<ul> <li>Effective Body Paragraphs</li> <li>Developing Body Paragraphs anchor chart</li> </ul>



**Calendared Curriculum Map:** 

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> <li>I can develop the topic with facts, definitions, details, and quotations. (W.4.2b)</li> <li>I can use precise, content-specific language/vocabulary to inform or explain about a topic. (W.4.2d)</li> <li>I can express ideas using carefully chosen words. (L.4.3a)</li> <li>I can accurately use fourth-grade academic vocabulary to express my ideas. (L.4.6)</li> </ul>	<ul> <li>I can revise my writing for accurate facts with related evidence using my planning graphic organizer.</li> <li>I can use vocabulary from my research on animal defense mechanisms to write accurate descriptions in my informative piece.</li> </ul>	Revisions of informative piece	<ul> <li>Steps for Revising My Writing anchor chart</li> <li>Informational Texts anchor chart</li> </ul>
Lesson 11	Writing Informational Texts: Editing for Conventions	<ul> <li>With support from peers and adults, I can use the writing process to produce clear and coherent writing. (W.4.5)</li> <li>I can correctly use homophones (e.g., to, too, two; there, their). (L.4.1g)</li> <li>I can use correct capitalization in my writing. (L.4.2a)</li> <li>I can spell grade-appropriate words correctly. (L.4.2d)</li> <li>I can use resources to check and correct my spelling. (L.4.2d)</li> </ul>	<ul> <li>I can check my peers' work for correct capitalization.</li> <li>I can check my peers' work for correct spelling.</li> </ul>	• Edits of informative piece	<ul> <li>Spelling Convention anchor chart</li> <li>Capitalization Conventions anchor chart</li> <li>Whip-Around protocol</li> </ul>



**Calendared Curriculum Map:** 

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> <li>I can accurately synthesize information from two texts on the same topic. (RI.4.9)</li> <li>I can write informative/explanatory texts that convey ideas and information clearly. (W.4.2)</li> <li>I can produce writing that is appropriate to task, purpose, and audience. (W.4.4)</li> <li>I can conduct a research project to become knowledgeable about a topic. (W.4.7)</li> <li>I can document what I learn about a topic by taking notes. (W.4.8)</li> <li>I can sort my notes into categories. (W.4.8)</li> </ul>	<ul> <li>I can synthesize information from my research notes onto a planning graphic organizer.</li> <li>I can group together facts from my research with related evidence in my informative piece.</li> <li>I can plan and write a draft of an informative piece describing the pufferfish and its defense mechanisms.</li> </ul>	<ul> <li>End of Unit 2 Assessment</li> <li>Tracking My Progress, End of Unit 2 recording form</li> </ul>	• Guiding Questions anchor chart



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### **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.