



EXPEDITIONARY
LEARNING

Grade 6: Module 4: Unit 1: Overview



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Unit 1: Building Background Knowledge: *Frightful's Mountain* and DDT

In this first unit, students are introduced to the central theme of this module: the delicate balance between human needs and the needs of the natural world. Students launch their reading of *Frightful's Mountain*, focusing their learning about the natural world by reading through the perspective of Frightful, a peregrine falcon. Students then begin to analyze informational texts and videos about DDT, a pesticide used widely throughout the world to fight malaria, but banned in the United States in 1972 due to its harmful environmental consequences. In these articles and videos, students learn to trace and evaluate an author's argument, claims, and evidence. In the mid-unit assessment, students read a new informational article and watch a new video, completing a graphic organizer

identical to the one they have been using to trace the author's argument during lessons. In the second half of the unit, students grapple with the central question of this module: Do the benefits of DDT outweigh its harmful consequences? Students reflect on the novel, the articles they read, and the videos they watched as well as a variety of new visual information in the form of charts, graphs, and maps. For their end of unit assessment, students participate in a Fishbowl discussion in which they are expected to advocate their position in response to the central question, using their own visual aids to help them support their position. This unit uses science content to teach literacy standards, but is not intended to replace hands-on science instruction.

Guiding Questions and Big Ideas

- **Do the benefits outweigh the harmful consequences of DDT?**
- **How do human actions affect the natural world?**
- **How do authors make claims and support their arguments with evidence?**
- **How can I use speaking and listening to advocate my own position persuasively?**
- *Human actions have environmental consequences.*
- *Authors use claims and evidence to support an argument.*



Mid-Unit 1 Assessment

Tracing and Evaluating an Argument: “Rachel Carson: Sounding the Alarm on Pollution” and the Video about DDT

This assessment centers on NYSP12 ELA CCLS RI.6.8 and SL.6.3. In this assessment, students read a new article and watch a new video about the debate over the use of DDT. For each, students trace and evaluate the argument and specific claims made by the author, or speaker, distinguishing claims that are supported by reasons and evidence, and those that are not. Students use a graphic organizer identical to the one they have been using in prior lessons to complete this assessment.

End of Unit 1 Assessment

Fishbowl Discussion: DDT: Do the Benefits Outweigh the Harmful Consequences?

This assessment centers on NYSP12 ELA CCLS SL.6.2 and SL.6.2a. In this assessment, students use the knowledge gained through the reading of the novel *Frightful's Mountain* and multiple informational articles to inform their discussion around the question: “Do the benefits of DDT outweigh the consequences?” Students participate in a “Fishbowl” discussion, in which part of the students are active participants in the discussion, while the other half are observing and coaching a partner. Then these roles are switched. Students participating in the discussion are expected to advocate their position, ask questions of other students, and respond to questions posed to them. Students are also expected to refer to visual aids, such as charts and graphs, about the use of DDT as they persuasively advocate their position. The teacher will use an observation-based criteria checklist to assess students’ performance.



Content Connections

This module is designed to address English Language Arts standards as students read literature and informational texts about DDT and the natural world. However, the module intentionally incorporates Social Studies 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 Social Studies Framework:

<http://engageny.org/sites/default/files/resource/attachments/ss-framework-k-8.pdf>

Unifying Themes (pages 6–7):

- Theme 4: Geography, Humans, and the Environment: The relationship between human populations and the physical world (people, places, and environments); impact of human activities on the environment; interactions between regions, locations, places, people, and environments.
- Theme 9: Science, Technology, and Innovation: Applications of science and innovations in transportation, communication, military technology, navigation, agriculture, and industrialization.

Social Studies Practices, Geographic Reasoning, Grades 5–8:

- Descriptor 2: Describe the relationships between people and environments and the connections between people and places (page 58).
- Descriptor 3: Identify, analyze, and evaluate the relationship between the environment and human activities, how the physical environment is modified by human activities, and how human activities are also influenced by Earth's physical features and processes.

Social Studies Practices, Gathering, Using, and Interpreting Evidence, Grades 5–8:

- Descriptor 1: Define and frame questions about events and the world in which we live and use evidence to answer these questions.
- Descriptor 2: Identify, describe, and evaluate evidence about events from diverse sources (including written documents, works of art, photographs, charts and graphs, artifacts, oral traditions, and other primary and secondary sources).
- Descriptor 4: Describe and analyze arguments of others.
- Descriptor 6: Recognize an argument and identify evidence that supports the argument; examine arguments related to a specific social studies topic from multiple perspectives; deconstruct arguments, recognizing the perspective of the argument and identifying evidence used to support that perspective.



Central Texts

1. Jean Craighead George, *Frightful's Mountain* (New York: Dutton Children's, 1999), ISBN: 978-0-141-31235-4.
2. "Welcome Back," in *Skipping Stones*, March–April 2010, 26.
3. "John Stossel—DDT" video, as found at <http://www.youtube.com/watch?v=kHwqandRTSQ>.
4. Kirsten Weir, "The Exterminator," in *Current Science*, Nov. 5, 2004, 4–7.
5. "DDT—Dichloro-diphenyl-trichloroethane" video, as found at <http://www.science.gc.ca/default.asp?lang=en&n=730d78b4-1> (for mid-unit assessment).
6. Robert W. Peterson, "Rachel Carson: Sounding the Alarm on Pollution," In *Boys' Life*, Aug. 1994, 38–39.



This unit is approximately 2.5 weeks or 13 sessions of instruction.

Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 1	Launching <i>Frightful's Mountain</i> : Building Background Knowledge and Establishing Reading Routines	<ul style="list-style-type: none"> I can cite text-based evidence to support an analysis of literary text. (RL.6.1) 	<ul style="list-style-type: none"> I can identify the relationships of the main character at the beginning of the novel <i>Frightful's Mountain</i>. I can use context clues to determine the meaning of unfamiliar vocabulary in <i>Frightful's Mountain</i>. I can use details from the text, <i>Frightful's Mountain</i>, to answer text-dependent questions. 	<ul style="list-style-type: none"> Learning from <i>Frightful's Perspective</i>: Chapter 1 Notice and Wonder: Response to <i>Frightful's Mountain</i> by Jean Craighead George Video 	<ul style="list-style-type: none"> Think-Pair-Share protocol
Lesson 2	Close Reading and Gathering Evidence from <i>Frightful's Mountain</i> and "Welcome Back"	<ul style="list-style-type: none"> I can identify the argument and specific claims in a text. (RI.6.8) I can evaluate the argument and specific claims for sufficient evidence. (RI.6.8) 	<ul style="list-style-type: none"> I can collect background information about peregrine falcons and pesticides. I can use evidence from <i>Frightful's Mountain</i> to collect and share information about peregrine falcons. I can get the gist of the informational article "Welcome Back." 	<ul style="list-style-type: none"> Learning from <i>Frightful's Perspective</i> Chapter 2: <i>Frightful</i> Goes to Falcon School, Peregrine Falcon Facts Learning from <i>Frightful's Perspective</i>: Chapter 2 Sticky note: Making Connections between <i>Frightful's Mountain</i> and "Welcome Back" 	<ul style="list-style-type: none"> Peregrine Falcon Facts Jigsaw protocol
Lesson 3	Tracing a Speaker's Argument: John Stossel DDT Video	<ul style="list-style-type: none"> I can outline a speaker's argument and specific claims. (SL.6.3) I can determine whether a speaker's argument is supported by reasons and evidence or not. (SL.6.3) 	<ul style="list-style-type: none"> I can identify the argument and specific claims in a video about DDT. I can determine the evidence used to support the argument and claims in a video about DDT. 	<ul style="list-style-type: none"> Learning from <i>Frightful's Perspective</i>: Chapter 3 (from homework) <i>Frightful's Relationships</i>: Excerpts from Chapter 3 Tracing an Argument graphic organizer 	<ul style="list-style-type: none"> Peregrine Falcon Facts



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 4	Citing Evidence and Building Vocabulary: “The Exterminator”	<ul style="list-style-type: none"> I can cite text-based evidence to support an analysis of informational text. (RI.6.1) I can use resources to build my vocabulary. (L.6.6) 	<ul style="list-style-type: none"> I can get the gist of the informational article “The Exterminator.” I can collect scientific vocabulary by reading “The Exterminator.” 	<ul style="list-style-type: none"> Learning from Frightful’s Perspective: Chapter 4 Text Walk Scavenger Hunt recording form Scientific vocabulary identified in “The Exterminator” 	
Lesson 5	Annotating the Text and Identifying Argument, Claims, and Evidence: “Double Whammy” Excerpt from “The Exterminator”	<ul style="list-style-type: none"> I can identify the argument and specific claims in a text. (RI.6.8) I can evaluate the argument and specific claims for sufficient evidence. (RI.6.8) 	<ul style="list-style-type: none"> I can get the gist of an excerpt from “The Exterminator.” I can identify the argument, claims, and evidence in an excerpt from “The Exterminator.” 	<ul style="list-style-type: none"> Learning from Frightful’s Perspective: Chapter 5 (from homework) Tracing an Argument graphic organizer Exit Ticket: Argument, Claims, and Evidence 	<ul style="list-style-type: none"> Peregrine Falcon Facts Think-Pair-Share protocol
Lesson 6	Identifying How Text Features Support Arguments: “The Exterminator”	<ul style="list-style-type: none"> I can cite text-based evidence to support an analysis of informational text. (RI.6.1) I can identify the argument and specific claims in a text. (RI.6.8) I can use resources to build my vocabulary. (L.6.6) 	<ul style="list-style-type: none"> I can identify the argument and specific claims in “The Exterminator.” I can evaluate the evidence used to support the argument and claims in “The Exterminator.” 	<ul style="list-style-type: none"> Learning from Frightful’s Perspective: Chapter 6 (from homework) Sidebar “Seriously Sick” glossary Sidebar “Killer Gene” glossary Sidebar task card 	<ul style="list-style-type: none"> Peregrine Falcon Facts Back-to-Back, Face-to-Face protocol
Lesson 7	Getting the Gist and Tracing an Argument: “Public Fear” Excerpt from “The Exterminator”	<ul style="list-style-type: none"> I can cite text-based evidence to support an analysis of informational text. (RI.6.1) I can identify the argument and specific claims in a text. (RI.6.8) I can evaluate the argument and specific claims for sufficient evidence. (RI.6.8) 	<ul style="list-style-type: none"> I can get the gist of an excerpt from “The Exterminator.” I can identify the argument, claims, and evidence in an excerpt from “The Exterminator.” 	<ul style="list-style-type: none"> Learning from Frightful’s Perspective: Chapter 7 (from homework) Peregrine Falcon Facts anchor chart Tracing an Argument graphic organizer Learning Target sticky notes 	<ul style="list-style-type: none"> Peregrine Falcon Facts



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 8	Mid-Unit Assessment: Tracing an Argument in an Article and a Video	<ul style="list-style-type: none"> I can identify the argument and specific claims in a text. (RI.6.8) I can evaluate the argument and specific claims for sufficient evidence. (SL.6.3) 	<ul style="list-style-type: none"> I can identify the argument and specific claims in a video about DDT. I can evaluate the evidence used to support the argument and claims in a video about DDT. I can identify the argument and specific claims in “Rachel Carson: Sounding the Alarm on Pollution.” I can evaluate the evidence used to support the argument and claims in “Rachel Carson: sounding the Alarm on Pollution.” 	<ul style="list-style-type: none"> Mid-Unit 1 Assessment: Tracing and Evaluating an Argument: Video about DDT Mid-Unit 1 Assessment: Tracing and Evaluating an Argument: “Rachel Carson: Sounding the Alarm on Pollution” 	
Lesson 9	Interpreting and Connecting Information: Creating a Cascading Consequence Chart Using Frightful’s Mountain	<ul style="list-style-type: none"> I can interpret information presented in different media and formats. (SL.6.2) I can explain how new information connects to a topic, text, or issue I am studying. (SL.6.2) I can use my experience and knowledge of language and logic to address problems and advocate persuasively. (SL.6.2a) I can write arguments to support claims with clear reasons and relevant evidence. (W.6.1) I can use evidence from a variety of grade-appropriate texts to support analysis, reflection, and research. (W.6.9) 	<ul style="list-style-type: none"> I can create a Cascading Consequence chart about Sam and Frightful’s interaction. I can describe the expectations for participating in a Fishbowl discussion group. I can use my Cascading Consequence chart for <i>Frightful’s Mountain</i> to clarify the ideas I am presenting. 	<ul style="list-style-type: none"> Learning from Frightful’s Perspective: Chapter 8 (from homework) Peregrine Falcon Facts anchor chart Cascading Consequence chart for <i>Frightful’s Mountain</i> 	<ul style="list-style-type: none"> Peregrine Falcon Facts Fishbowl Discussion protocol



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 10	Using Multiple Resources of Information: Creating a Cascading Consequences Chart about DDT and Practicing a Fishbowl Discussion	<ul style="list-style-type: none"> I can interpret information presented in different media and formats. (SL.6.2) I can explain how new information connects to a topic, text, or issue I am studying. (SL.6.2) I can use my experience knowledge of language and logic to address problems and advocate persuasively. (SL.6.2a) I can write arguments to support claims with clear reasons and relevant evidence. (W.6.1) I can use evidence from a variety of grade-appropriate texts to support analysis, reflection, and research. (W.6.9) 	<ul style="list-style-type: none"> I can use multiple resources to create a Cascading Consequences chart about the use of DDT. I can practice the skills and expectations for a Fishbowl discussion. 	<ul style="list-style-type: none"> Learning from Frightful's Perspective: Chapter 9 (from homework) Peregrine Falcon Facts anchor chart Benefits of DDT and Harmful Consequences Cascading Consequences charts Fishbowl Feedback checklist Exit Ticket: Fishbowl Successes and Fishbowl Goals 	<ul style="list-style-type: none"> Peregrine Falcon Facts
Lesson 11	Interpreting, Integrating, and Sharing Information: Using Charts and Graphs about DDT	<ul style="list-style-type: none"> I can interpret information presented in different media and formats. (SL.6.2) I can explain how new information connects to a topic, text, or issue I am studying. (SL.6.2) 	<ul style="list-style-type: none"> I can interpret information in charts and graphs about DDT. I can integrate information from charts and graphs to grow my understanding of DDT. I can share information I learned from charts and graphs in a small group discussion. 	<ul style="list-style-type: none"> Learning from Frightful's Perspective: Chapter 10 (from homework) Interpreting Charts and Graphs graphic organizer Benefits of DDT Cascading Consequences chart (from Lesson 10); Harmful Consequences of DDT Cascading Consequences chart (from Lesson 10) 	<ul style="list-style-type: none"> Interpreting Charts and Graphs Peregrine Falcon Facts



Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 12	Interpreting, Integrating, and Sharing Information about DDT: Using Cascading Consequences and Fishbowl Protocol	<ul style="list-style-type: none"> I can interpret information presented in different media and formats. (SL.6.2) I can explain how new information connects to a topic, text, or issue I am studying. (SL.6.2) 	<ul style="list-style-type: none"> I can interpret information from cascading consequences about the use of DDT. I can integrate information from cascading consequences to grow my understanding of DDT. I can describe the expectations for a Fishbowl discussion. 	<ul style="list-style-type: none"> Learning from Frightful's Perspective: Chapter 11 (from homework) Interpretation of Benefits of DDT and Harmful Effects of DDT Cascading Consequences charts Fishbowl note-catcher 	<ul style="list-style-type: none"> Fishbowl Discussion protocol
Lesson 13	End of Unit Assessment: Fishbowl Discussion	<ul style="list-style-type: none"> I can interpret information presented in different media and formats. (SL.6.2) I can explain how new information connects to a topic, text, or issue I am studying. (SL.6.2) I can use my experience, knowledge, and understanding of culture to think analytically, address problems creatively, and advocate persuasively. (SL.6.2a) 	<ul style="list-style-type: none"> I can interpret information about DDT presented by my peers orally and visually. I can explain how new information contributes to my understanding of DDT. I can use my knowledge of DDT to advocate persuasively for one side or another. 	<ul style="list-style-type: none"> End of Unit 1 Assessment: Fishbowl discussion: DDT: Do the Benefits Outweigh the Consequences? Fishbowl Discussion Partner Scoring Log Exit Ticket: Two Stars and One Step 	<ul style="list-style-type: none"> Fishbowl Discussion protocol



Optional: Experts, Fieldwork, and Service

Experts:

- Invite a local expert on peregrine falcons to speak with your class.
- Invite an editorial writer or journalist to discuss the development of writing an argument.
- Invite a New York environmental lawyer and advocate for the natural world to discuss the balance of human needs and the natural world.
- Invite a representative from the Department of Health, or similar organization, to discuss the ways in which we control diseases, such as malaria, in our own area.

Fieldwork:

- Several areas around the state of New York have nesting falcons. Consider visiting a local falcon nest to make observations.

Service:

- Consider having students share their position papers.

Optional: Extensions

- Consider cooperating with a science teacher to help students develop a deeper understanding of the complex scientific content of this module.
- Consider cooperating with an art teacher to help students create more beautiful, polished visual displays.



Preparation and Materials

This unit includes a couple of routines that involve stand-alone documents.

Throughout the unit (and into Unit 2), students read *Frightful's Mountain* for homework. Two documents were created to help promote student accountability, independence, and small group discussion. The first is a **Reading Calendar** and the second is the **Learning from Frightful's Perspective** accompanying each chapter.

1. Reading Calendar

- Students read *Frightful's Mountain* for homework in Units 1 and 2.
- Each night, they read a new chapter.
- Consider providing a reading calendar to help students, teachers, and families understand what is due and when.
- See stand-alone document.

2. Learning from Frightful's Perspective

Students will read a new chapter of *Frightful's Mountain* each night. The Learning from Frightful's Perspective document is given to students at the end of each lesson to complete in conjunction with their reading. This serves multiple purposes: accountability, vocabulary, comprehension, and discussion. Each night, students have a different “focus question” that requires them to respond with both their own thinking as well as textual evidence to support their thinking. It also provides students with a glossary of some words that are content specific, while asking them to collect their own list of words with which they struggled. When students launch each lesson, this document serves as an anchor for discussion in their triads.

If you prefer, you can create a packet that includes the Reading Calendar and all of the Learning from Frightful's Perspective documents and give it to students at the launch of this novel. This may help students with the organization of their papers as well as save class time at the end of each day.



**The calendar below shows what is due on each day.
Teachers can modify this document to include dates instead of lessons.**

Due at Lesson	Read and complete Learning from Frightful's Perspective focus question and vocabulary for this chapter:
2	Chapter 2: "Frightful Goes to Falcon School"
3	Chapter 3: "The Eyases Get on Wing"
4	Chapter 4: "The Wilderness Tests the Eyases"
5	Chapter 5: "Frightful Peregrinates"
6	Chapter 6: "Frightful Finds the Enemy"
7	Chapter 7: "Disaster Leads to Survival"
8	No new chapter for this lesson
9	Chapter 8: "Hunger Is Frightful's Teacher"
10	Chapter 9: "Frightful Finds Sam"
11	Chapter 10: "There Are Eggs and Trouble"
12	Chapter 11: "The Kids Are Heard"
13	No new chapter for this lesson