EXPEDITIONARY LEARNING

Grade 6: Module 3B: Unit 1: Lesson 4
Tracing the Idea of Fish Depletion: Chapter 1

Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)
I can determine the main idea of an informational text based on details in the text. (RI.6.2) I can analyze how key individuals, events, or ideas are developed throughout a text. (RI.6.3) I can use a variety of strategies to determine word meaning in informational texts. (RI.6.4)

Supporting Learning Targets	Ongoing Assessment
• I can find the gist of pages 1–8 of *World without Fish*. • I can use strategies to determine the meaning of words and phrases in an excerpt of Chapter 1 of *World without Fish*. • I can use evidence from the text to answer text-dependent questions. • I can analyze how Mark Kurlansky illustrates/elaborates on the problem of fish depletion in an excerpt of Chapter 1 of *World without Fish*.	• Structured notes for "The Story of Kram and Ailat: Part 1" (from homework) • Text-Dependent Questions: Pages 1–8

Agenda	Teaching Notes

1. Opening
 	
   A. Engaging the Reader: Graphic Novel Part 1 (5 minutes)
 	
   B. Unpacking Learning Targets (2 minutes)
 	
2. Work Time
 	
   A. Reading for Gist: Pages 1–8 (12 minutes)
 	
   B. Text-Dependent Questions: Pages 1–8 (15 minutes)
 	
3. Closing and Assessment
 	
   A. Analyzing a Chart Showing Biodiversity and Tracing the Development of an Idea (12 minutes)
 	
4. Homework
 	
   A. Reread the excerpt of Chapter 1 that you read in class today.
 	
   B. Read "The Story of Kram and Ailat: Part 2" (the graphic novel) at the end of Chapter 1. Answer the focus question on your structured notes.
	• This lesson is similar in structure to Lessons 1–3. Students read a new excerpt of *World without Fish* for the gist and then answer text-dependent questions to dig deeper into the text and analyze how Mark Kurlansky illustrates and elaborates on the idea of fish depletion in Chapter 1.
	
	• The content of Chapter 1 is a worst-case scenario, so emphasize to students that this is a "could" situation rather than something that will happen, and that these are just ideas presented by one person.
	
	• At the beginning of the lesson, students discuss the graphic novel. From this lesson onward, they will begin to trace how the idea of fish depletion is developed in the graphic novel as well as in the informational text. A new anchor chart is introduced in this lesson to trace the idea throughout the graphic novel. To distinguish this anchor chart from the title the anchor chart used to trace the idea through the main text in the chapters, ensure it has Graphic Novel at the beginning of the title.
	
	• This lesson introduces a new Graphic Novel: Tracing the Development of an Idea anchor chart, which is similar to the Tracing the Development of an Idea anchor chart begun in Lesson 2, but focused specifically on the "novel within the text." Preview Closing, Part A for details.
	
	• In advance:
	
	   – Review *World without Fish* Chapter 1, pages 1–8.
	
	   – Read the Close Reading Guide: Pages 1–8 (see supporting materials).
	
	   – Review the Back-to-Back and Face-to-Face protocol (see Appendix).
	
	• Post: Learning targets; Graphic Novel: Tracing the Development of an Idea anchor chart; Tracing the Development of an Idea anchor chart.

Lesson Vocabulary	Materials
illustrate, elaborate, exposition (1), cataclysm, genetic (3), deposit, grave (4), cooperation (4), vertebrates (5), evolved (6), invertebrates, krill (8)	• Graphic Novel: Tracing the Development of an Idea anchor chart (new; teacher-created; see supporting materials) • Graphic Novel: Tracing the Development of an Idea anchor chart (answers, for teacher reference) • *World without Fish* word-catcher (students' own; from Lesson 1) • *World without Fish* (book; distributed in Lesson 1; one per student) • Sticky notes (eight per student) • Dictionaries (at least one per triad) • Text-Dependent Questions: Pages 1–8 (one per student and one for display) • Close Reading Guide: Pages 1–8 (for teacher reference) • Ocean Food Web (one for display) • Tracing the Development of an Idea anchor chart (begun in Lesson 2) • Tracing the Development of an Idea anchor chart (answers, for teacher reference)

Opening	Meeting Students' Needs
A. Engaging the Reader: Graphic Novel Part 1 (5 minutes) • Back-to-Back and Face-to-Face: – Invite students to pair up and to sit back-to-back. – Remind students of the homework focus question: "What do we learn about fishing from the graphic novel? How does Mark Kurlansky introduce the idea of fish depletion here?" – Invite students to refer to the **structured notes** they completed for homework. – Invite students to turn face-to-face to share their answers with their partner. • Select volunteers to share out whole group. Listen for students to explain that we learn that big fish drive small fish to the surface, and sea birds are an indicator that there are fish close to the surface. Also listen for students to explain that the author introduces the idea of fish depletion by having Kram explain to Ailat that they have to throw the one fish they have caught back because there aren't enough left. • Record students' ideas on the posted **Graphic Novel: Tracing the Development of an Idea anchor chart**. See **Graphic Novel: Tracing the Development of an Idea anchor chart (answers, for teacher reference)** as a guide.	• Reviewing homework holds all students accountable for reading the text and completing their homework. • Capturing students' ideas on an anchor chart can ensure easy reference later and can enable students to see at a glance how an idea has developed through a text.

B. Unpacking Learning Targets (2 minutes)
 	
 • Ask a volunteer to read the learning targets aloud.
 	
   * "I can find the gist of pages 1–8 of *World without Fish*."
 	
   * "I can use strategies to determine the meaning of words and phrases in an excerpt of Chapter 1 of *World without Fish*."
 	
   * "I can use evidence from the text to answer text-dependent questions."
 	
   * "I can analyze how Mark Kurlansky illustrates/elaborates on the problem of fish depletion in an excerpt of Chapter 1 of *World without Fish*."
 	
 • Underline *illustrates* and *elaborates*. Tell students that "illustrate," in this case, is how an author explains something with increasing detail, and not about drawing a picture, and that "elaborate" in this context is another way of saying developed. So students are going to be looking at how Mark Kurlansky continues to add detail and develop the idea of fish depletion in an excerpt of Chapter 1.
 	
 • Direct students to record the new words on their ***World without Fish* word-catchers**.
	• Posting learning targets allows students to reference them throughout the lesson to check their understanding. The learning targets also provide a reminder to students and teachers about the intended learning behind a given lesson or activity.
	
	 • Discussing and clarifying the language of learning targets helps build academic vocabulary.

Work Time	Meeting Students' Needs

A. Reading for Gist: Pages 1–8 (12 minutes)
 	
• Invite students to take out **World without Fish** and turn to page 1, which is the first page of Chapter 1. Ask students to read along in their heads as you read the page aloud. Instruct them to discuss in triads:
 	
   ∗ "What is this chapter going to be about? How do you know?"
 	
• Select volunteers to share their ideas with the whole group. Listen for them to explain that it is going to be about what could happen and how it would happen. (It's fine if that is all students understand at this point).
 	
• Focus students on the word *exposition*. Ask triads to discuss:
 	
   ∗ "What do you think this word might mean given the context?"
 	
• Cold call students to share their responses. Listen for and guide students to understand that it means a descriptive piece of writing.
 	
• Focus students on the words "could" and "would." Ask:
 	
   ∗ "Does this mean it definitely will happen?"
 	
• Cold call students to share their responses. Listen for and guide students to understand that this is something that Mark Kurlansky is saying is a possibility. It doesn't mean it definitely will happen, though. Also emphasize to students that these are just the ideas of one person, Mark Kurlansky.
 	
• Ask students to turn to the next page and invite them to silently read along as you read aloud up to "seabirds would die out" on page 8. Ask students to discuss in triads:
 	
   ∗ "What is this excerpt mostly about?"
 	
• Select volunteers to share their responses. Listen for students to explain that it is mostly about how losing some species of fish could have a huge impact on biodiversity—losing one species of fish could result in losing lots of species including mammals and birds.
 	
• Invite a student to reread the learning target about reading for the gist aloud.
 	
   ∗ "I can find the gist of pages 1–8 of *World without Fish*."
	• Hearing a complex text read slowly, fluently, and without interruption or explanation promotes fluency for students. They are hearing a strong reader read the text aloud with accuracy and expression and are simultaneously looking at and thinking about the words on the printed page. Be sure to set clear expectations that students read along silently in their heads as you read the text aloud.
	
	• Allow students to grapple with a complex text before explicit teaching of vocabulary. After students have read for the gist, they can identify challenging vocabulary for themselves.
	
	• 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
• Distribute eight **sticky notes** to each student. Remind students of the importance of summarizing smaller chunks of text as they read for the gist, and ask them to annotate the gist on the sticky notes. Remind students to ask questions as they read to help them monitor comprehension. Explain that the goal is for them to understand what this excerpt is mostly about. Direct students to include the text accompanying the images and any additional text at the side of the main excerpt of text as they read for the gist.	
• Remind students that where possible, you would like them to use their word strategies to figure out the meaning of unfamiliar words: reading around unfamiliar words, looking for root words, replacing the word with other words that would make sense, and looking for context clues to figure out what they mean. Distribute **dictionaries** to each triad and tell students that if they can't figure out the meaning from the context, they can look the word up. If they aren't sure what the word means after looking for context clues and looking in the dictionary, they should leave the definition to be discussed with the whole group later.	
• Invite students to work together as a triad to read for the gist, annotate sticky notes, and record unfamiliar words on their word-catchers.	
• Circulate and support students as they read. For those who need more support, ask them to practice telling you the gist of a section before they write it on a sticky note.	
• As students finish up, refocus whole group. Focus students on the word *grave* on page 4. Ask them to discuss in triads:	
∗ "What does this word mean? Does it have more than one meaning?"	
• Select volunteers to share their ideas. Listen for them to explain that grave means serious, but it can also mean a place where someone is buried.	
• Invite students to share any unfamiliar vocabulary words they found, along with the definition. If they were unable to work out the definition from the context or find it in a dictionary, encourage other students to assist them with the definition. To keep things moving, if no one else knows what the word means, define the word for the class.	
• Students may struggle with these words, so be sure to address them here: *cataclysm*, *genetic*, *deposit*, *cooperation*, *vertebrates*, *evolved*, *invertebrates*, and *krill.*	
• If students are unable to work out the definition from the context or find it in a dictionary, encourage other students to assist them with the definition. To keep things moving, if no one else knows what the word means, define the word for the class.	
• Remind students to record new words on their word-catchers.	

Work Time (continued)	Meeting Students' Needs
B. Text-Dependent Questions: Pages 1–8 (15 minutes) • Display and distribute **Text-Dependent Questions: Pages 1–8**. Remind students that text-dependent questions help them to dig deeper into the text to have a better understanding of it. • Guide students through the text-dependent questions using the **Close Reading Guide: Pages 1–8 (for teacher reference)**. • Finish by inviting students to read pages 17–19 as you read them aloud. Explain that you are jumping forward in the chapter because you want to make sure students are exposed to the most important information that Mark Kurlansky discusses. • Emphasize to students that what Mark Kurlansky is presenting is an idea—it could happen, but it doesn't mean it definitely will.	• Asking students to discuss challenging questions before recording them helps to ensure that all students have an idea about what to write and can give students confidence in their responses.

Closing and Assessment	Meeting Students' Needs
A. Analyzing a Chart Showing Biodiversity and Tracing the Development of an Idea (12 minutes)	• Capturing students' ideas on an anchor chart can ensure easy reference later and can enable students to see at a glance how an idea has developed through a text.
• Display the **Ocean Food Web**. Invite students to notice the bottom, middle, and surface levels of the ocean, read aloud the species names, and explain how the arrows show the flow of energy (note the arrows show energy from the prey going to the predator).	
• Remind students of what biodiversity means. Ask them to discuss in triads:	
* "How does this food web connect to what you have been reading today?"	
• Cold call students to share their responses. Listen for students to explain that this food web shows biodiversity in the ocean and the way one species depends on another, which is what they read about today.	
• Cover up one of the species on the web and ask students to discuss in triads:	
* "What happens if this species disappears?"	
• Select students to share their responses. Listen for them to explain that the other species that depend on it may also disappear.	
• Repeat by covering different species.	
• Focus students' attention on the posted **Tracing the Development of an Idea anchor chart**. Ask students to discuss in triads:	
* "What is the idea we are tracing here?"	
• Select students to share their responses. Listen for students to explain that the idea is fish depletion.	
• Ask students to discuss in triads:	
* "So how does the author illustrate or elaborate on this idea in the excerpt you have read from Chapter 1?"	
• Remind students that illustrate and elaborate mean to add detail and develop the idea.	
• Cold call students to share their responses. Listen for and guide students to understand that the author illustrates and elaborates on the idea by explaining what could happen specifically to fish and then how that would affect other species.	
• Record this on the Tracing the Development of an Idea anchor chart. See **Tracing the Development of an Idea anchor chart (answers, for teacher reference)** for a model.	

Homework	Meeting Students' Needs
• Reread the excerpt of Chapter 1 that you read in class today. • Read "The Story of Kram and Ailat: Part 2" (the graphic novel) at the end of Chapter 1. Answer this focus question on your structured notes in your journal: – "What do we learn about fishing from the graphic novel? How does Mark Kurlansky illustrate and elaborate on the idea of fish depletion here?"	

Grade 6: Module 3B: Unit 1: Lesson 4
Supporting Materials

Graphic Novel: Tracing the Development of an Idea Anchor Chart

What happens?	How is the idea of fish depletion introduced, illustrated, or elaborated on in the graphic novel?

Graphic Novel: Tracing the Development of an Idea Anchor Chart
Answers For Teacher Reference

What happens?	How is the idea of fish depletion introduced, illustrated, or elaborated on in the graphic novel?
Part 1: Kram and Ailat are fishing. They catch a small fish, which Ailat wants to take home to show her mom, but Kram explains that she can't because there aren't enough left.	*The idea of fish depletion is introduced here by having Kram throw the fish that Ailat is so excited about back. We feel sorry for Ailat.*

Text-Dependent Questions: Pages 1–8

Name:

Date:

Learning Targets:

• "I can use evidence from the text to answer text-dependent questions."

Questions	Answers (supported with evidence from the text)
1. What does Kurlansky say is key to the success of all life on earth?	
2. According to Kurlansky, which are the most evolved animals in the sea?	
3. What is Kurlansky saying might happen if commercial fish were to disappear?	
4. What does Kurlansky mean by, "Their disappearance would mark the beginning of a process in which evolution goes in reverse"?	

Text-Dependent Questions: Pages 1–8

Questions	Answers (supported with evidence from the text)
5. How old does Kurlansky say today's small fish species are?	
6. According to Kurlansky, why would the dolphin die off very quickly once the larger, more evolved fish were gone?	
7. Why does Kurlansky suggest seabirds would die out?	

Time: 13 minutes

Questions	Close Reading Guide
1. What does Kurlansky say is key to the success of all life on earth? 2. According to Kurlansky, which are the most evolved animals in the sea?	• Tell students they will work through Questions 1 and 2 together. • Invite students to reread pages 1–4 up to "… more difficult for the remaining animals to survive." • Invite students to work in triads to answer Questions 1 and 2 using evidence from the text. • Invite triads to pair up with another triad to share their answers to Questions 1 and 2. • Listen for the following answer to Question 1: "Biodiversity is key to success for all life on earth." • Listen for the following answer to Question 2: "Mammals are the most evolved animals in the sea: whales, porpoises, and seals."
3. What is Kurlansky saying might happen if commercial fish were to disappear?	• Invite students to reread, "If the top forty species of commercial fish were to disappear, or even have their populations decline in very small numbers, this would be a grave threat to all of biodiversity. Other species would begin disappearing, too, either because their lives depended on cooperation with these species or because they used to eat those fish—or even because those vanished species used to hunt predators that were now free to roam and prosper." • Invite students to discuss in triads: * "What does 'a grave threat to all of biodiversity' mean?" • Select volunteers to share their responses. Listen for and guide students to understand that it means a serious threat to the variety of life. • Invite students to work in triads to answer Question 3 using evidence from the text.

Questions	Close Reading Guide
	• Refocus whole group and invite triads to share their ideas. Listen for students to explain that it would be a threat to biodiversity because other species would begin to disappear too because they used to eat those fish.
	• Focus students on "… or even because those vanished species used to hunt predators that were now free to roam and prosper."
	• Ask students to discuss in triads: * "What does this mean?"
	• Select volunteers to share their responses. Listen for and guide students to understand that it means that if species that used to hunt predators disappeared, there would be more of those predators than there were before.
	• Invite students to discuss in triads: * "How would you synthesize what he is saying in this short section?"
	• Cold call volunteers to share their ideas. Listen for and guide students to understand that the author is saying that the disappearance of forty fish species would be a threat to biodiversity—it would upset the balance of life because some species would die out and others would thrive as a result.
4. What does Mark Kurlansky mean by, "Their disappearance would mark the beginning of a process in which evolution goes in reverse?"	• Tell students they will work through Questions 4 and 5 together. • Invite students to reread from, "Their disappearance would mark the beginning of a process in which evolution goes in reverse …" to "… are only 100 million years old." • Remind students that "evolution" means "the process of developing and changing." • Invite students to work in triads to answer Question 4 using evidence from the text.

| Questions	Close Reading Guide
5. How old does Mark Kurlansky say today's small fish species are?	• Refocus whole group and invite triads to share their ideas. Listen for students to explain that he means that the ocean would go back to how it was millions of years ago when there were no fish at all. • Invite students to work in triads to answer Question 5 using evidence from the text. • Refocus whole group and invite triads to share their ideas. Listen for students to explain that he says they are only 100 million years old.
6. According to Mark Kurlansky, why would the dolphin die off very quickly once the larger, more evolved fish were gone? 7. Why does Mark Kurlansky suggest seabirds would die out?	• Tell students they will work through Questions 6 and 7 together. • Invite students to work in triads to answer Questions 6 and 7 using evidence from the text. • Invite triads to pair up with another triad to share their answers to Questions 6 and 7. • Listen for the following answer to Question 6: "Dolphins would die off quickly because the Bluefin tuna would be gone." • Listen for the following answer to Question 7: "Seabirds would die out because there wouldn't be large fish to drive the small fish to the surface."

Tracing the Development of an Idea Anchor Chart
Answers for Teacher Reference

Idea: Fish depletion

Chapter	How is the idea introduced, illustrated, or elaborated on in this chapter?
Chapter 1	• *Kurlansky illustrates and elaborates on the idea by explaining what could happen specifically to fish and then how that would affect other species.*

Ocean Food Web
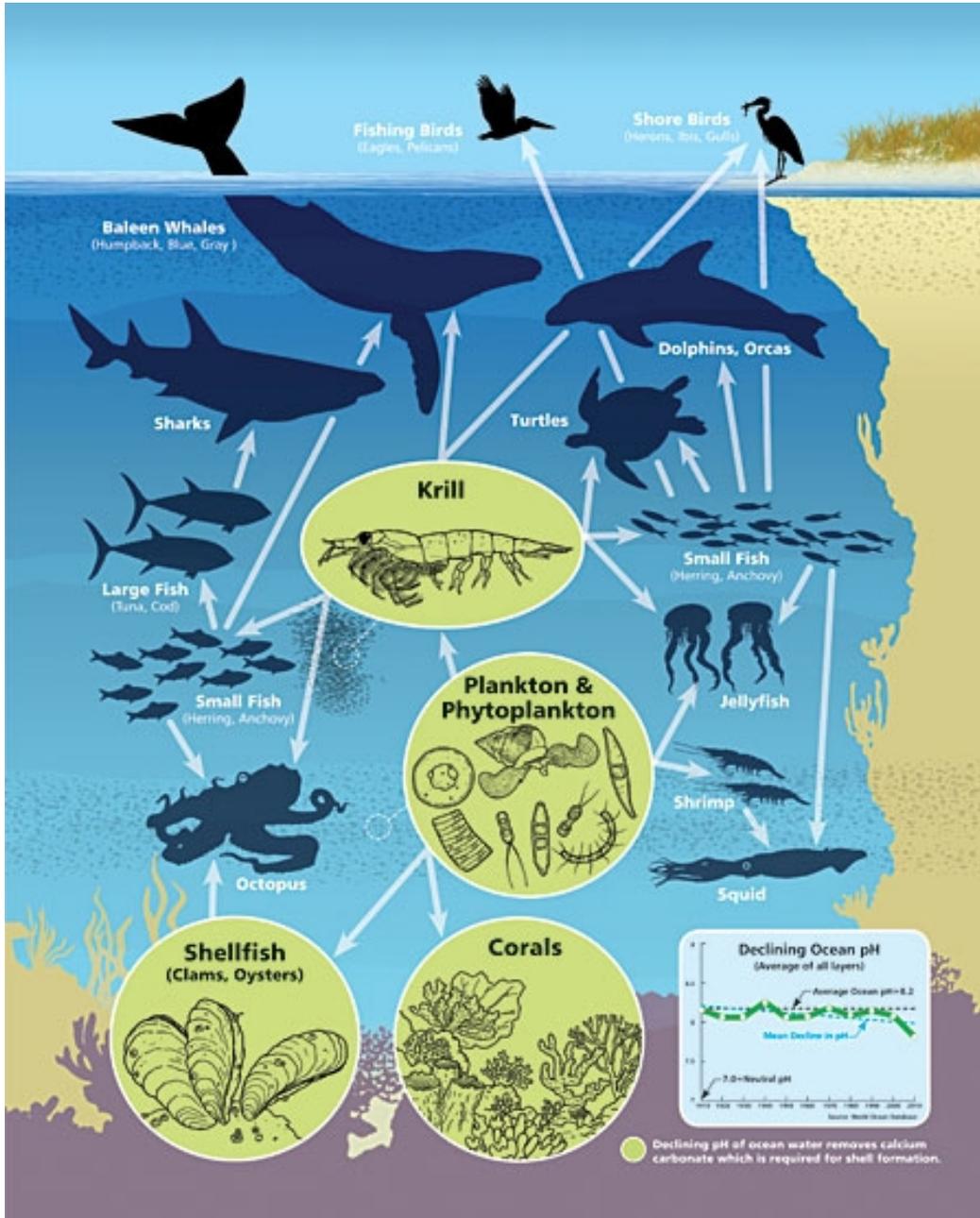
Russell, Jerry. "May/June 2012 Issue." E Magazine Print Issue. The Environment Magazine, 1 May 2012. Web. 19 Feb. 2014.
<http://www.emagazine.com/magazine/ocean-food-web>.