EXPEDITIONARY LEARNING

Grade 8: Module 4: Unit 2:
Overview

Unit 2: Researching Consequences and Stakeholders of Michael Pollan's Four Food Chains

In this unit, students research in order to help them make a decision to answer this question: Which of Michael Pollan's four food chains would best feed the United States? They make a decision to answer this question by researching the consequences and stakeholders of each food chain. Students use *The Omnivore's Dilemma* as a starting point to identify the consequences of each of the food chains. They work in research teams to create a Cascading Consequences chart for each food chain that begins with consequences listed in the text; then they expand their research and consequences by searching for appropriate articles and resources through a child-safe search engine. Teams then use their cascading consequences to identify the stakeholders who will be affected by the consequences, and from there determine which food chain they would choose to feed the United States. At the end of the unit, students present a position speech answering the question.

Guiding Questions And Big Ideas
• **Which of Michael Pollan's four food chains would best feed the United States?**
• **What are the consequences of each of the food chains?**
• **Which stakeholders are affected by the consequences of each food chain?**
• *The food we buy comes to us from various routes and processes. We can make more informed decisions about what food to buy when we understand those processes and the stakeholders affected by the food choices we make.*
• *When taking a position on an issue, you need to research the consequences and stakeholders affected by each option.*
• *When putting forward an argument, you need to provide relevant and sufficient evidence to support your claims.*

Mid-Unit 2 Assessment	**Research Simulation** This assessment centers on NYSP12 ELA CCLS W.8.7 and W.8.8. In this assessment, students apply the research skills they have been learning throughout the unit to answer research questions about two new research texts. They paraphrase research, choose search terms, cite sources, and determine the credibility and accuracy of research sources.
End of Unit 2 Assessment	**Position Speech: Which of Michael Pollan's four food chains would best feed the United States?** This assessment centers on NYSP12 ELA CCLS SL.8.4, SL.8.5, and SL.8.6. Students present a position speech to answer the question: Which of Michael Pollan's four food chains would best feed the United States? They state a claim and provide two reasons for making that claim based on the consequences and affected stakeholders they have identified for each food chain throughout the unit. They select evidence to support their reasons, and they provide a counterclaim and respond to it.

Content Connections

This module is designed to address English Language Arts standards as students read *The Omnivore's Dilemma*, an informational text about food sustainability. 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:

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.

Texts

1. Michael Pollan, *The Omnivore's Dilemma,* Young Readers Edition (New York: The Penguin Group, 2009), ISBN: 978-0-8037-3500-2.

This unit is approximately 3 weeks or 17 sessions of instruction.

Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 1	Determining Cascading Consequences Using *The Omnivore's Dilemma*: Industrial Food Chain	• I can cite text-based evidence that provides the strongest support for an analysis of informational text. (RI.8.1) • I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can generate additional research questions for further exploration. (W.8.7)	• I can analyze *The Omnivore's Dilemma* to determine the cascading consequences of the industrial food chain.	• Industrial Food Chain Cascading Consequences chart	
Lesson 2	Preparing for Further Research: Industrial Food Chain	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can generate additional research questions for further exploration. (W.8.7)	• I can develop a supporting research question to help me focus my research. • I can evaluate research sources to choose the most appropriate one to answer my supporting research question.		• Good Supporting Research Questions Are...

Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 3	Further Research: Industrial Food Chain	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can use several sources in my research. (W.8.7) • I can gather relevant information from a variety of sources. (W.8.8) • I can use search terms effectively. (W.8.8) • I can evaluate the credibility and accuracy of each source. (W.8.8) • I can quote and paraphrase others' work while avoiding plagiarism. (W.8.8) • I can use a standard format for citation. (W.8.8)	• I can use research skills to determine the consequences of the industrial organic food chain. • I can devise a supporting research question to help me focus my research. • I can identify the relevant information in a research source to answer my supporting research question. • I can evaluate the credibility and accuracy of a source. • I can quote and paraphrase others' work while avoiding plagiarism.	• Researcher's notebook	
Lesson 4	Adding to Cascading Consequences and Stakeholders: Industrial Food Chain	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7	• I can use my research to add to the Cascading Consequences chart for Michael Pollan's industrial food chain. • I can determine the stakeholders affected by the consequences of Michael Pollan's industrial food chain	• Cascading Consequences chart • Stakeholders chart	

Lesson	Lesson Title	Long-Term Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 5	Determining Cascading Consequences Using *The Omnivore's Dilemma*: Industrial Organic Food Chain	• I can cite text-based evidence that provides the strongest support for an analysis of informational text. (RI.8.1) • I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can generate additional research questions for further exploration. (W.8.7)	• I can determine the cascading consequences of the industrial organic food chain using *The Omnivore's Dilemma*. • I can develop a supporting research question to help me focus my research.	• Industrial Organic Food Chain Cascading Consequences team charts • Exit Ticket: Developing a Supporting Research Question: Consequences of Industrial Organic Food Chain	• Good Supporting Research Questions are...
Lesson 6	Using Search Terms for Further Research: Industrial Organic Food Chain	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can use several sources in my research. (W.8.7) • I can gather relevant information from a variety of sources. (W.8.8) • I can use search terms effectively. (W.8.8) • I can evaluate the credibility and accuracy of each source. (W.8.8) • I can quote and paraphrase others' work while avoiding plagiarism. (W.8.8) • I can use a standard format for citation. (W.8.8)	• I can use research skills to determine consequences of the industrial organic food chain. • I can list the criteria of credible research sources. • I can choose the most effective search terms to find relevant research sources to answer my research question. • I can identify the relevant information in a research source to answer my research question.	• Assessing Sources handout (from homework) • Researcher's notebook	• Prepare the What Makes a Source Accurate and Credible? • Effective Search Terms Are.. • Paraphrasing

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Lesson 7	Adding to Cascading Consequences and Stakeholders: Industrial Organic Food Chain	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7)	• I can use my research to add to the Cascading Consequences chart for Michael Pollan's industrial organic food chain. • I can determine the stakeholders affected by the consequences of Michael Pollan's industrial organic food chain.	• Cascading Consequences charts • Stakeholders charts • MLA citations in researcher's notebooks	• Correct Citations
Lesson 8	Determining Cascading Consequences Using *The Omnivore's Dilemma*: Local Sustainable Food Chain	• I can cite text-based evidence that provides the strongest support for an analysis of informational text. (RI.8.1) • I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can generate additional research questions for further exploration. (W.8.7)	• I can determine the cascading consequences of the local sustainable food chain using *The Omnivore's Dilemma*. • I can develop a supporting research question to help me focus my research.	• Team Local Sustainable Food Chain Cascading Consequences chart • Exit Ticket: Developing a Supporting Research Question: Consequences of Local Sustainable Food Chain	• Good Supporting Research Questions Are

Lesson	Lesson Title	Long-Term Learning Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 9	Further Research: Local Sustainable Food Chain	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can use several sources in my research. (W.8.7) • I can gather relevant information from a variety of sources. (W.8.8) • I can use search terms effectively. (W.8.8) • I can evaluate the credibility and accuracy of each source. (W.8.8) • I can quote and paraphrase others' work while avoiding plagiarism. (W.8.8) • I can use a standard format for citation. (W.8.8)	• I can use research skills to determine consequences of the local sustainable food chain. • I can cite sources using MLA format. • I can choose the most effective search terms to find relevant research sources to answer my research question. • I can evaluate the credibility and accuracy of a source. • I can quote and paraphrase others' work while avoiding plagiarism. • I can identify the relevant information in a research source to answer my research question.	• Researcher's notebook	• Effective Search Terms Are ... • What Makes a Source Credible and Accurate? • Paraphrasing • Correct Citations
Lesson 10	Adding to Cascading Consequences and Stakeholders: Local Sustainable Food Chain	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7)	• I can use my research to add to the Cascading Consequences chart for Michael Pollan's local sustainable food chain. • I can determine the stakeholders affected by the consequences of Michael Pollan's local sustainable food chain.	• Team Local Sustainable Food Chain Cascading Consequences charts • Local Sustainable Stakeholders charts	• Advocating Persuasively Criteria • Effective Speaking Skills

Lesson	Lesson Title	Long-Term Learning Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 11	Mid-Unit Assessment: Research Simulation	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can use several sources in my research. (W.8.7) • I can generate additional research questions for further exploration. (W.8.7) • I can gather relevant information from a variety of sources. (W.8.8) • I can use search terms effectively. (W.8.8) • I can evaluate the credibility and accuracy of each source. (W.8.8) • I can quote and paraphrase others' work while avoiding plagiarism. (W.8.8) • I can use a standard format for citation. (W.8.8)	• I can devise a research question to help me focus my research. • I can identify the relevant information in a research source to answer my research question. • I can evaluate the credibility and accuracy of a source. • I can choose the most effective search terms to find relevant research sources to answer my research question. • I can quote and paraphrase others' work while avoiding plagiarism. • I can cite sources using MLA format.	• Mid-Unit 2 Assessment: Research Simulation	• Effective Speaking Skills • Correct Citations
Lesson 12	Determining Cascading Consequences Using *The Omnivore's Dilemma*: Hunter-Gatherer Food Chain	• I can cite text-based evidence that provides the strongest support for an analysis of informational text. (RI.8.1) • I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can generate additional research questions for further exploration. (W.8.7)	• I can determine the cascading consequences of the hunter-gatherer food chain using *The Omnivore's Dilemma*. • I can develop a supporting research question to help me focus my research.	• Team Hunter-Gatherer Food Chain Cascading Consequences chart • Exit Ticket: Developing a Supporting Research Question: Consequences of Hunter-Gatherer Food Chain	• Good Supporting Research Questions Are …

Lesson	Lesson Title	Long-Term Learning Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 13	Further Research: Hunter-Gatherer Food Chain	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7) • I can use several sources in my research. (W.8.7) • I can gather relevant information from a variety of sources. (W.8.8) • I can use search terms effectively. (W.8.8) • I can evaluate the credibility and accuracy of each source. (W.8.8) • I can quote and paraphrase others' work while avoiding plagiarism. (W.8.8) • I can use a standard format for citation. (W.8.8)	• I can use research skills to determine consequences of the hunter-gatherer food chain. • I can devise a research question to help me focus my research. • I can identify the relevant information in a research source to answer my research question. • I can evaluate the credibility and accuracy of a source. • I can choose the most effective search terms to find relevant research sources to answer my research question. • I can quote and paraphrase others' work while avoiding plagiarism. • I can cite sources using MLA format.	• Researcher's notebook • Exit Ticket: Reflection Questions	• Effective Search Terms Are ...
Lesson 14	Adding to Cascading Consequences and Stakeholders: Hunter-Gatherer Food Chain	• I can conduct short research projects to answer a question (including a self-generated question). (W.8.7)	• I can use my research to add to the Cascading Consequences chart for Michael Pollan's hunter-gatherer food chain. • I can determine the stakeholders affected by the consequences of Michael Pollan's hunter-gatherer food chain.	• Team Hunter-Gatherer Food Chain Cascading Consequences charts • Hunter-Gatherer Stakeholders charts	
Lesson 15	Writing a Position Speech: Which Food Chain Would Be Best?	• I can present claims and findings in a focused, coherent manner (use relevant evidence, sound reasoning, and well-chosen details). (SL.8.4)	• I can make a claim supported by reasons and evidence from research.	• Position Speech Rubric (content section only for Birke Baehr speech) • Completed Position Speech graphic organizer	• Effective Speaking Skills

Lesson	Lesson Title	Long-Term Learning Targets	Supporting Targets	Ongoing Assessment	Anchor Charts & Protocols
Lesson 16	Creating a Visual Component for the Speech: End of Unit Assessment Preparation and Practice	• I can present claims and findings in a focused, coherent manner (use relevant evidence, sound reasoning, and well-chosen details). (SL.8.4) • I can use effective speaking techniques (appropriate eye contact, adequate volume, and clear pronunciation). (SL.8.4) • I can integrate multimedia components and visual displays in a presentation to clarify information, strengthen claims, and add emphasis. (SL.8.5) • I can adapt my speech for a variety of contexts and tasks, using formal English when indicated or appropriate. (SL.8.6)	• I can demonstrate effective speaking techniques (appropriate eye contact, adequate volume, and clear pronunciation). • I can appropriately use a visual component to clarify, support, and emphasize the content of my speech.		• Effective Speaking Skills • Stars and Steps protocol
Lesson 17	End of Unit Assessment: Presentation of Position	• I can present claims and findings in a focused, coherent manner (use relevant evidence, sound reasoning, and well-chosen details). (SL.8.4) • I can use effective speaking techniques (appropriate eye contact, adequate volume, and clear pronunciation). (SL.8.4) • I can integrate multimedia components and visual displays in a presentation to clarify information, strengthen claims, and add emphasis	• I can present my claim about which food chain would best feed all the people in the United States using relevant evidence, sound reasoning, and well-chosen details. • I can adapt my speech for an audience of adults.	• End of Unit 2 Assessment: Position Speech	• Adapting a Speech

Optional: Experts, Fieldwork, And Service

Experts:

- Invite local farmers to discuss with students their farming methods and how the issues that Michael Pollan discusses affect their food production and their livelihood.

- Invite representatives from grocery stores, including organic and health food stores, to share with students how the issues that Michael Pollan discusses affect their stores and customers.

- Invite hunters who hunt to feed their families to share with students their perspective on hunting.

Fieldwork:

- Arrange for a visit to a local grocery store to look at where the produce comes from and the ingredients in different foods.

- Arrange for a visit to a food processing plant to look at what happens to food in a factory.

- Arrange for a visit to farms—for example, a local sustainable farm and an industrial farm—to see how food is produced and to compare the different ways things are done.

Optional: Extensions

- Make Cascading Consequences charts for other decisions or dilemmas.

- Present end of unit assessment adapted position speeches to an audience of adults—for example, parents, teachers, and experts from the food industry.

Preparation and Materials

- Consider partnering with a school library media specialist for this unit as students will be doing a lot of research on each of the food chains; the media specialist will be able to help students find useful articles to answer their research questions.

- The research materials provided in the research folders are purposely of a range of Lexile measures in order to challenge students of all abilities. Guide students to choose research materials from the folder that are at an appropriate level for them. Glossaries have been provided for each of the articles, so ensure that students use the glossaries when using the articles in order to gain a greater understanding of the text. Be prepared to provide support to students who will struggle with all of the texts in a group—choose one text for all of them to work with and read it for the gist as a group.

- This unit contains a lot of supporting materials, including Cascading Consequences charts and Stakeholders charts for each food chain, that students will need at the end of the unit for their position speech. Consider how to help students organize their work so that these important pieces of work are available for reference when needed.