



EXPEDITIONARY
LEARNING

Grade 8: Module 4: Unit 2: Lesson 5

Determining Cascading Consequences Using *The Omnivore's Dilemma*: Industrial Organic Food Chain



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)	
<p>I can cite text-based evidence that provides the strongest support for an analysis of informational text. (RI.8.1)</p> <p>I can conduct short research projects to answer a question (including a self-generated question). (W.8.7)</p> <p>I can generate additional research questions for further exploration. (W.8.7)</p>	
Supporting Learning Targets	Ongoing Assessment
<ul style="list-style-type: none">I can determine the cascading consequences of the industrial organic food chain using <i>The Omnivore's Dilemma</i>.I can develop a supporting research question to help me focus my research.	<ul style="list-style-type: none">Industrial Organic Food Chain Cascading Consequences team chartsExit Ticket: Developing a Supporting Research Question: Consequences of Industrial Organic Food Chain



Agenda	Teaching Notes
<ol style="list-style-type: none"> 1. Opening <ol style="list-style-type: none"> A. Unpacking Learning Targets (5 minutes) 2. Work Time <ol style="list-style-type: none"> A. Mini Lesson: Modeling How to Create a Team Industrial Organic Cascading Consequences Chart (8 minutes) B. Research Teams Create Industrial Organic Cascading Consequences Charts (14 minutes) C. Team Share (8 minutes) 3. Closing and Assessment <ol style="list-style-type: none"> A. Exit Ticket: Developing a Supporting Research Question (10 minutes) 4. Homework <ol style="list-style-type: none"> A. Read the Assessing Sources handout. Put a check mark next to questions you already ask yourself when you do research. Put a star next to a question that is new to you. Be prepared to share in the next class. 	<ul style="list-style-type: none"> • This is the first of three lessons focused on the industrial organic food chain. In this lesson, students work in research teams to create an Industrial Organic Food Chain Cascading Consequences team chart. At the end of this lesson, they write a supporting research question to guide their research in Lesson 6. Then in Lesson 7, they will use their research to add to their Cascading Consequences chart and to create a Stakeholders chart. This cycle of lessons will be repeated for the local sustainable and hunter-gatherer food chains. • A large focus of this lesson is on teaching research teams how to work together effectively by modeling a clear process for adding to the Cascading Consequences chart. The process is defined in the Consequences Conversation task card (see supporting materials). Tell students to hold on to this task card in order to refer to it each time they work with their team on a Cascading Consequences chart. Spending time on this process in this lesson is important because students will need to work effectively with their research teams repeatedly throughout the rest of the unit. • Consider making the Consequences Conversation task card used in Work Time B double-sided, with the steps on the front and the checklist on the back. • This is the first time students will be using their own supporting research questions to guide their research. Consider collecting the exit tickets and giving students feedback on the quality of their supporting research questions using the criteria on the Good Supporting Research Questions Are ... anchor chart. They will use these questions to focus their research in the next lesson. • In advance: <ul style="list-style-type: none"> – Review the script for modeling the creation of the team Cascading Consequences chart and the Industrial Organic Food Chain Cascading Consequences chart for mini lesson. – Identify two students to model creating a Cascading Consequences chart with you in the mini lesson. If possible, share the script and Cascading Consequences chart with them before class begins so they have time to prepare. – Review the Industrial Organic Food Chain Cascading Consequences chart (for teacher reference) to help you while you are circulating during Work Time. • Review: Fist to Five in Checking for Understanding Techniques (see Appendix).



Lesson Vocabulary	Materials
cascading, consequence	<ul style="list-style-type: none">• Script for modeling the creation of the team Cascading Consequences chart (three copies, for teacher and two students who help with mini lesson)• Industrial Organic Food Chain Cascading Consequences chart for mini lesson (three copies, for teacher and two students who help with mini lesson)• Chart paper (one per research team)• Markers (four different colors per research team)• Consequences Conversation task card (one per student)• Industrial Organic Food Chain graphic organizer (completed by students in Unit 1)• Industrial Organic Food Chain Cascading Consequences chart (for teacher reference)• Researcher's roadmap (one per student, distributed in Lesson 2)• Good Supporting Research Questions Are ... anchor chart (created in Lesson 2)• Exit Ticket: Developing a Supporting Research Question: Consequences of Industrial Organic Food Chain (one per student)• Assessing Sources (one per student)



Opening	Meeting Students' Needs
<p>A. Unpacking Learning Targets (5 minutes)</p> <ul style="list-style-type: none">• Remind students that their goal in this unit is to use a structured decision-making process to answer the focus question:<ul style="list-style-type: none">* “Which of Michael Pollan’s four food chains would best feed all the people in the United States?”• Read the first learning target out loud:<ul style="list-style-type: none">* “I can determine the cascading consequences of the industrial organic food chain using <i>The Omnivore’s Dilemma</i>.”• Circle the words <i>cascading consequences</i> on the posted learning targets and ask students to ask a partner:<ul style="list-style-type: none">* “What is the meaning of <i>cascading consequences</i>?”• Invite students to use the Think-Pair-Share:<ul style="list-style-type: none">* “What is the purpose of creating Cascading Consequences charts for each food chain?”• When students share out, listen for them to say that the purpose is to collect evidence to analyze which of Pollan’s food chains is best for feeding the United States, and that it is one part of the structured decision-making process to help them decide how to best answer the question.• Explain that for today and the next two lessons, students will be focusing on the industrial organic food chain. Today, as in Lesson 1, they will add consequences of the industrial organic food chain using evidence from <i>The Omnivore’s Dilemma</i>. After adding evidence from the book, they will each research one aspect of the chart and add even more cascading consequences based on their research.• Invite students to turn to page 5 in <i>The Omnivore’s Dilemma</i> to the description of the industrial organic food chain. Read this description aloud as students follow along silently. The purpose of this reading is to simply remind students of the definition of industrial organic.	<ul style="list-style-type: none">• ELLs and other students may benefit from visual representations of the four food chains.



Work Time	Meeting Students' Needs
<p>A. Mini Lesson: Modeling How to Create a Team Industrial Organic Cascading Consequence Chart (8 minutes)</p> <ul style="list-style-type: none">• Invite two students to help you model creating a team Cascading Consequences chart. Give them the script for modeling the creation of the team Cascading Consequences chart and the Industrial Organic Food Chain Cascading Consequences chart for mini lesson. Tell the class to imagine that the three of you (the two students and the teacher) make up a research team and that you are going to model how research teams should work together to create their new Cascading Consequences charts.• As they watch the model, invite the students to think about:<ul style="list-style-type: none">* “What is the research team doing well as they create their Cascading Consequences chart together?”• After the modeling, invite students to Think-Pair-Share:<ul style="list-style-type: none">* “What did you see us do in the model that you think will make your own research team effective?”• Cold call several students to share out. Listen for students to say: “You each took a turn,” “You said the page numbers where in the book you found the consequence,” “You explained where you thought the consequence should go and why,” “You asked your team if they agreed with you,” “You disagreed respectfully,” “You actively listened to your teammates as they added to the chart,” or “You each used a different color marker.”• Consider charting these ideas on the board or chart paper for students to refer to as they work with their research teams. (If you use chart paper, you can take it out again for lessons in which teams add to their Cascading Consequences charts and those in which they repeat this process for the other two food chains.)	<ul style="list-style-type: none">• You can strategically create student success by preparing students with learning challenges to help you model ahead of time.• Strategically partnering students for Think-Pair-Shares can help ELLs and others with language production challenges to become more fluent.



Work Time (continued)	Meeting Students' Needs
<p>B. Research Teams Create Industrial Organic Cascading Consequences Charts (14 minutes)</p> <ul style="list-style-type: none"> • Invite students to take out their own Industrial Organic Food Chain Cascading Consequences chart, which they completed for homework, and explain that they are going to use this to build their team Industrial Organic Food Chain Cascading Consequences charts. • Distribute one piece of chart paper and four different colored markers to each research team. • Distribute a Consequences Conversation task card to each student and explain that the steps on the task card are the same steps they observed in the model. Invite students to read the directions on the task card with you. • Point out that it is important that teams follow the process outlined on the task card because: 1) it ensures that all students' voices are heard; 2) it pushes students to share their thinking about why; and 3) the markers allow you to quickly observe the contributions of each team member. • Remind students that there are multiple ways to create a Cascading Consequences chart from a text. It is OK if each research team's chart is slightly different as long as they can argue why they placed things where they did. • Encourage students to include the three boxes from the mini lesson on their team Cascading Consequences chart. Remind students that they also have their Industrial Organic Food Chain graphic organizer from Unit 1 that they may want to use to add consequences to the chart. • As students work, circulate to observe and assist teams. Ask students: <ul style="list-style-type: none"> * "Are you following the model and using your task card to make sure you are taking turns, discussing where consequences should go and why, and actively and respectfully listening?" * "Why did you place this consequence where you did?" * "How do you know this is a consequence of this?" • See the Industrial Organic Food Chain Cascading Consequences chart (for teacher reference) for one way to create a Cascading Consequences chart from these text excerpts. Note that it is NOT the ONLY way. 	<ul style="list-style-type: none"> • For students who are having a hard time identifying the consequences in the text, consider giving them a list of consequences that they can use to participate in creating the team Cascading Consequences chart. • You might consider adding a "Stop and Check in with the Teacher" step to some groups' tasks cards. This would help you monitor their progress. • In addition, as students work, leave "sticky note feedback" for groups as you monitor. "Great work staying focused" or "The way you are making sure all voices are being heard is exceptional!" are examples of specific feedback you might leave.



Work Time (continued)	Meeting Students' Needs
<p>C. Team Share (8 minutes)</p> <ul style="list-style-type: none">• Remind students that the purpose of creating Cascading Consequences charts is to help them figure out which food chain they think would be best for feeding all the people in the United States.• Explain to students that they will now get to borrow ideas from other teams. Direct research teams to assign each student a number, one through four.• Post the following directions:<ul style="list-style-type: none">– Number 1 stay at your team's Cascading Consequences chart to answer questions from other group members.– Numbers 2 through 4 each travel to another chart. At the other charts, look for any differences compared to your own chart. Ask clarifying questions in order to understand why the team placed certain consequences where they did. For example, you might say: "Why don't you have 'costs more' coming from the box that says 'no chemical fertilizers and pesticides?' Isn't that what really makes organic food cost more?"– Numbers 2 through 4 return to your own team with one difference and an explanation of why the other team made the decision they did.• Circulate to support students in asking and answering questions. Some students may find this challenging and require additional support.• Invite all students to return to their own charts to add/revise their cascading consequences based on what they saw on the other charts they visited.	<ul style="list-style-type: none">• Taking what you hear from teams during this share and scripting it on the board, a chart, or an interactive white board will help some students capture what they need on their own charts when they return to their seats.



Closing and Assessment	Meeting Students' Needs
<p>A.Exit Ticket: Developing a Supporting Research Question (10 minutes)</p> <ul style="list-style-type: none"> Remind students of the focus question and research question, both posted in the classroom: <ul style="list-style-type: none"> * "Focus question: Which of Michael Pollan's four food chains would best feed all the people in the United States?" * "Research question: What are the consequences of each of Michael Pollan's four food chains?" Remind students that the purpose of the research they are doing is to gather evidence to be able to answer this question orally at the end of Unit 2 and in writing in Unit 3. Invite students to take out their researcher's roadmaps (from Lesson 2) and briefly tell a partner where we are on the roadmap for the new food chain: industrial organic. Remind students that the next step is to develop a supporting research question, which they will use in class tomorrow to further research the consequences of the industrial organic food chain. Invite all students to choose one consequence from the chart about which they would like to do further research and write their initials next to it on their team Cascading Consequences chart. Invite the research teams to look at the boxes that were initialed and discuss whether there are any other consequences that they feel would be more important to research than those that were initialed. If so, students may volunteer to research those instead. Emphasize that each student in the team should have chosen a different consequence to research. Review the Good Supporting Research Questions Are... anchor chart posted on the wall. Distribute an Exit Ticket: Developing a Supporting Research Question: Consequences of Industrial Organic Food Chain to each student. Invite students to complete the exit ticket by writing their research topic (a box from the Cascading Consequences chart) and drafting a supporting research question. Distribute Assessing Sources to students. 	<ul style="list-style-type: none"> Some students may benefit from a sentence frame to complete their exit ticket.
Homework	Meeting Students' Needs
<ul style="list-style-type: none"> Read the Assessing Sources handout. Put a check mark next to questions you already ask yourself when you do research. Put a star next to a question that is new to you. Be prepared to share in the next class. 	



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Supporting Materials



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Script for Modeling the Creation of the Team
Cascading Consequences Chart

Teacher: I am going to add: “Grown on monoculture farms (farms growing only one crop).” This is on page 114. I think this is a direct consequence of choosing the industrial organic food chain, so I think it should go in a box coming directly from the center. *To Student 1 and Student 2:* What do you two think?

Student 1: I think you’re right.

Student 2: Me too.

The teacher draws a center box and writes “Industrial Organic Food Chain” and then draws a second box with the consequence “Grown on monoculture farms (farms growing only one crop).” See Industrial Organic Food Chain Cascading Consequences chart for mini lesson.

Student 1: I am going to add: “Cows are fenced in all day and eat grain instead of grass.” This is also from page 114. I think this is a cascading consequence of food coming from monoculture farms. Do you agree?

Student 2: I think it could actually come directly from the center box. It seems like a direct consequence of the Industrial Food Chain since it shows how farms are like factories.

Student 1: That is a good point, but if farms weren’t made up of just one crop or animal, then they probably wouldn’t have to be fenced in, like on Joel Salatin’s farm.

Student 2: OK.

USING A DIFFERENT COLORED MARKER, Student 1 draws a box with this consequence: “Cows are fenced in all day and eat grain instead of grass.” This is coming from the monoculture box.

Student 2: I am going to add: “Beef is raised on feedlots. Cows are fed corn, just like industrial beef, but the corn is organic.” This consequence is also on page 114. Based on what Student 1 said, I think this is a direct consequence of farms being monoculture, so I think the box should come off of the monoculture box. What do you two think?

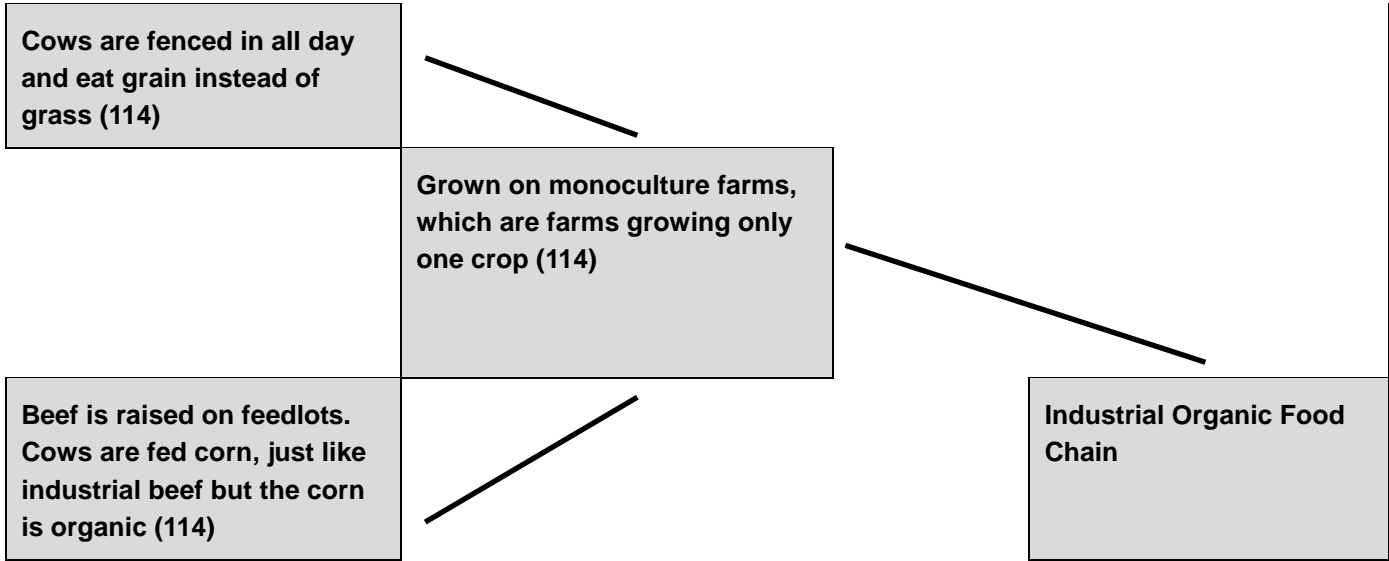


Script for Modeling the Creation of the Team
Cascading Consequences Chart

Teacher: I agree with you. If farms weren't monoculture, we probably wouldn't have feedlots.

USING A THIRD COLOR OF MARKER, Student 2 draws another box with this consequence: "Beef is raised on feedlots. Cows are fed corn, just like industrial beef, but the corn is organic." This is also coming from the monoculture box.

but the corn is
organic (114)



Consequences Conversation
Task Card

To create or add to a Cascading Consequences chart, follow these steps:

- Student 1 shares a new consequence, including citing the text name and/or page number, and explains where in the chart he/she thinks it should go.
- Other students agree or disagree with the placement of the consequence.
- If there is disagreement, team works to come to a consensus. Student 1 gets the final decision.
- Student 1 uses his/her color marker to place the consequence on the chart.
- Each remaining student shares one new consequence following the steps above.
- The team repeats this process until students have added all of their consequences or until Work Time is up.

To make sure you are sharing the workload and communicating effectively, check yourselves:

- Are you adding only one box before the next student takes his/her turn?
- Is each of you writing in a different color marker?
- Are you thinking about where each consequence should go on the chart and sharing your thinking?
- Are you asking each other questions? And listening to the answers?
- Are you explaining why?
- Are you actively listening and communicating respectfully?

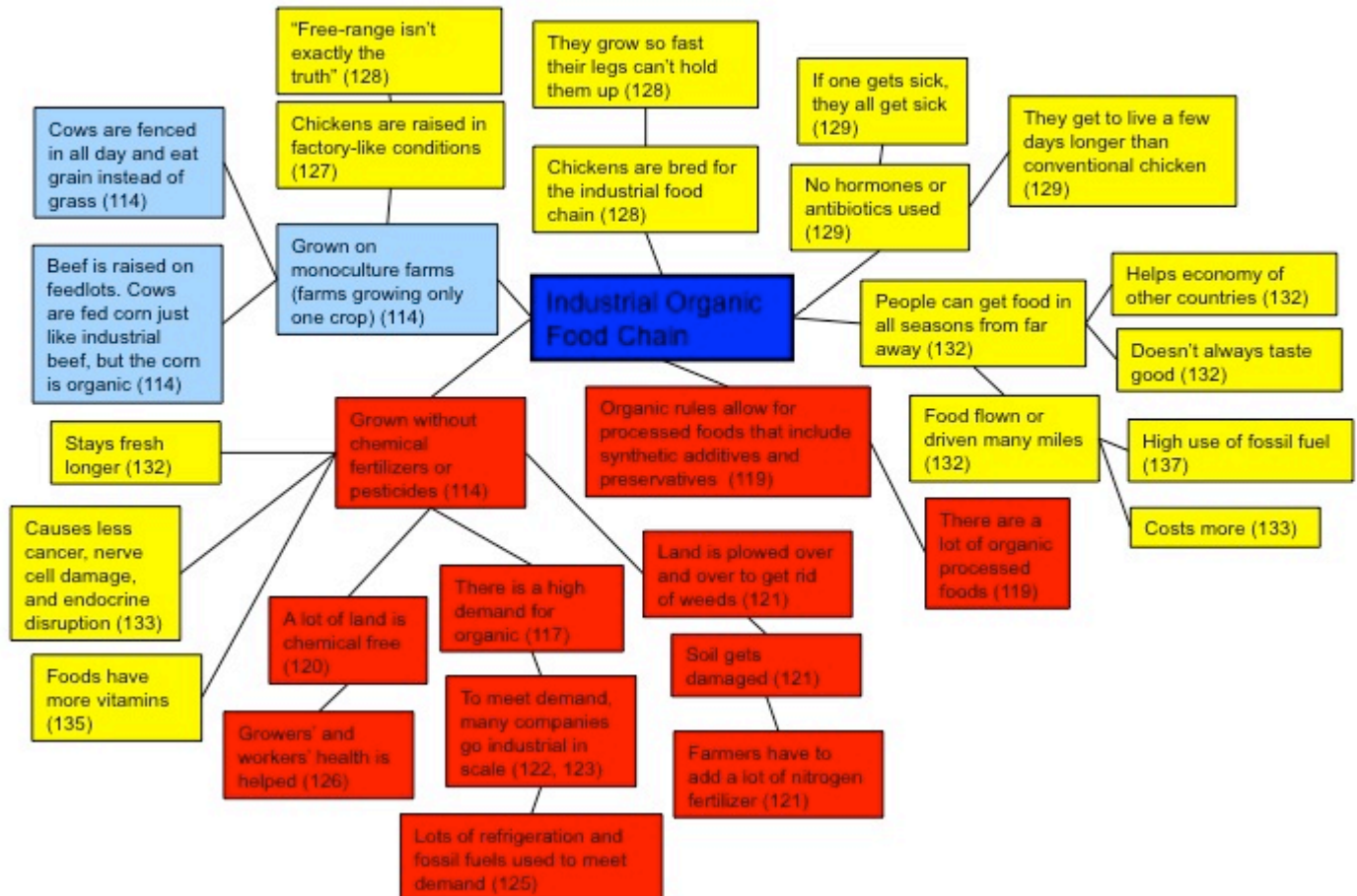


Industrial Organic Food Chain

Cascading Consequences Chart for Teacher Reference

From Mini Lesson
Text Excerpt 1 (p. 114–126)
Text Excerpt 2 (p. 127–136)

Industrial Organic Food Chain Cascading Consequences Chart
(for Teacher Reference)



Exit Ticket: Developing a Supporting Research Question:
Consequences of Industrial Organic Food Chain

Name:

Date:

What is the topic from your team Cascading Consequences chart that you will research?

Using the criteria for a good supporting research question, write your supporting research question here:

Assessing Sources

When you find a text you think you might use for research, you first need to assess it by asking these questions:

1. Assess the Text's Accessibility

- Am I able to read and comprehend the text easily?
- Do I have adequate background knowledge to understand the terminology, information, and ideas in the text?

2. Assess the Text's Credibility and Accuracy

- Is the author an expert on the topic?
- Is the purpose to inform or persuade/sell?
- When was the text first published?
- How current is the information on the topic?
- Does the text have specific facts and details to support the ideas?
- Does the information in this text expand on or contradict what I already know about the topic?
- If the text is from a Web site, is the site associated with a reputable institution such as a respected university, credible media outlet, government program or department, or well-known non-governmental organization? (Note: Beware of using sites like Wikipedia, which are collaboratively developed by users—anyone can add or change the content.)

3. Assess the Text's Relevance

- Does the text have information that helps me answer my research questions? Is it information that I don't already have?
- How does the information in the text relate to other texts I have found?