Name: Sarah L. Smith

Course: English (Grade 11)

**Lesson Title**: "The True Cost of Food" (6 weeks)

Global Standards: Identify & Acknowledge Global Connections, Investigate the World, Communicate Ideas, Take Action

**Overview**: Through this unit, students will explore global food production and consumption's impact on the environment, the economy, and the health of society. Students will develop critical, evaluative questions through their reading, viewing, and discussions in order to investigate a global food topic of their own choosing and develop a realistic plan of action to address this issue.

# Stage 1 Desired Results

# **ESTABLISHED GOALS**

# G1. English 11/12 Reading Standards for Informational Text

RI.11.1: Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

a. Develop factual, interpretative, and evaluative questions for further exploration of the topic.

RI.11.2: Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.

RI.11.6: Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power,

# Transfer

Students will be able to independently use their learning to...

- T1. Recognize, analyze, and evaluate global issues and examine how these issues connect to their own lives.
- T2. Suspend judgment when confronted with new information that is in conflict with their own understandings or values.
- T3. Evaluate and respond to multiple sources of information from media, government, and corporations.
- T4. Develop critical thinking skills by asking evaluative questions to challenge information.
- T5. Use interdisciplinary knowledge and skills to generate projections for the future and weigh current and potential future scenarios.

Meaning

T6. Communicate effectively to take action to address global issues.

### UNDERSTANDINGS

Students will understand...

- U1. We are directly and simultaneously connected to the rest of the world through one of the most basic elements essential to our existence—the food we eat.
- U2. Food production and consumption are complex, challenging, and ever changing

# **ESSENTIAL QUESTIONS**

- E1. Where does the food we eat come from?
- E2. How is the food we eat produced?
- E3. What are the economic, environmental, and social health costs associated with our food production and consumption?
- E4. Who actually pays for the cost of cheap food? Our environment? Our bodies? Other

persuasiveness or beauty of the text. RI.11.7: Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

# **G2.** English 11/12 Writing Standards

W.11.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

- a. Explore topics dealing with different cultures and viewpoints.
- <u>W.11.6</u>: Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

### G3. English 11/12 Speaking and Listening

- SL.11.1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
  - Come to discussions prepared, having read and researched material under study; explicitly draw on that

- global issues with far-reaching effects on the environment, economic systems, and the health of society.
- U3. There are a myriad of cultural, political, and economic factors behind the existing practices and norms in the food industry and these factors vary from country to country.

  U4. Consumers hold tremendous power to effect change in food production through their purchasing decisions.
- U5. Consumers hold a responsibility to challenge current practices to support fair, sustainable practices for the good of the environment and society of today and tomorrow.
- U6. How to effectively challenge current practices and communicate rationale to a wider audience, or to specific groups to effect change.

- people who are exploited? Or is it a combination of all?
- E5. What are some of the root causes of behind these economic, environmental, and social issues related to food production and consumption?
- E6. How can we have food that is fair and equitable to farmers, laborers, and corporations, while remaining affordable to consumers, and safe for the environment?
- E7. Where does a consumer find information about where and how their food was produced and why is it so difficult to find this information?
- E8. How much power do consumers really have in effecting change?
- E9. What can consumers do to from a local standpoint to get involved, effect a change through action, and support fair food and sustainability?

#### **Acauisition**

Students will know...

- K1. The concept of globalization and the role it plays in food production and labor practices.
  K2. The role they play as a consumer in and the power they hold to effect change through their purchases to engender fair food and labor practices.
- K3. The importance of a cosmopolitan education and its moral commitment to all of

Students will be skilled at...

- S1. Reading for information on the source of food, food products, and the companies profiting from these consumables.
- S2. Researching a variety of credible, critical and varied sources (including those not published in the United States or written in English) for information on food, food production, labor practices and other topics

- preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- Work with peers to promote civil, democratic discussions and decisionmaking, set clear goals and deadlines, and establish individual roles as needed.
- c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.
- d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- e. Seek to understand other perspectives and culture and communicate effectively with audiences or individuals from varied backgrounds.
- <u>SL.11.4</u>: Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the

humanity.

- K4. How to identify origins of food or food products as well as those that support fair labor practices.
- K5. How to incorporate multiple points of view to analyze and understand an issue or topic of global concern.
- K6. Communicate effectively with an audience of diverse perspectives.
- K7. Use technology to effectively communicate information, perspectives, and a plan of action on a global issue.

pertaining to this subject area.

- S3. Independently develop critical questions for further investigation and inquiry that relate to other parts of the world (local to global connection) to compare, contrast, and synthesize information.
- S4. Developing an action plan to effect a change towards fair food and labor and sustainable practices.
- S5. Creating an informative, compelling, and persuasive presentation to educate local individuals (peers and/or adults) on this subject and actions that can be taken to address this topic.

organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks. **G4.** Oxfam Global Citizenship Knowledge Globalization and Political/Economic Interdependence: • World economic and political systems Ethical consumerism Sustainable Development and Environment: • Global imperative of sustainable development • Lifestyles for a sustainable world **G5. Oxfam Global Citizenship Skills** Critical Thinking: • Critically analyzing information Making ethical judgments Handling complex issues Ability to Argue Effectively: Political literacy • Participating in relevant political processes **G6. Common Core Standards – Statistics** CCSS.Math.Content.HSS-IC.B.3 – Recognize the purposes of and differences among sample surveys, experiments, and observational studies

	Stage 2 - Evidence
Evaluative Criteria	Assessment Evidence
Evaluative Circeita	TRANSFER TASK(S):
1. Identify, list, locate, construct, compare, classify, provide evidence, analyze, and form a claim. The evidence-based claim will be evaluated based on the NYS evidence based claim template and CS rubric grading system for forming evidence-based claims.	1. Food Journal and Mapping Project — Using the provided worksheet, keep a journal of all the food you consume over the course of at least three days. If possible, at least one day should fall on a weekend. Using data from this journal, a printed map of the world, and computers or iPads with internet access, locate the geographic origins of the foods consumed (refer to <a href="http://www.mapsofworld.com/world-top-ten/agriculture-and-food-processing.html">http://www.mapsofworld.com/world-top-ten/agriculture-and-food-processing.html</a> for additional resources). Shade in the countries of origin using a self-created key. Using Google Maps, calculate and record the distance this food traveled to reach your plate. Using the Evidence-Based claim template ( <a href="www.engageny.org">www.engageny.org</a> ), record and analyze the most important information and evidence from this mapping activity and develop at least two evidence-based claims from your analysis. Additionally, develop at least two evidence-based, open-ended questions for group discussion and potential future inquiry throughout the unit.
2. Identify, collect, collaborate, evaluate, compare and contrast, analyze through use of graphic organizer, form evidence-based claim.	2. Photo Gallery – Based on the World Bank's social network project and using your cell phone, digital camera, or other creative means (bring a picture from an advertisement, bring in the actual food product), take a picture of a food item or items you can buy for a cost of \$1. As a class and using Google Docs, create a collaborative, digital collage of all \$1 foods for whole-class analysis. Develop a list of evaluative observations based on the digital collage (e.g. What types of food can we buy? Are they meals or snacks? Healthy or unhealthy?) Using a graphic organizer, compare and contrast our digital collage with examples of what people around the world can buy for \$1 from <a href="https://www.rebelmouse.com/WorldBank/1dollar/">https://www.rebelmouse.com/WorldBank/1dollar/</a> to compose an evidenced based claim.
3. Demonstrate close reading, critical analysis of texts, compare and contrast, form evidence-based claims, argue claims by supporting with valid and organized reasoning, demonstrate appropriate use of language, tone, and images to create	3. Public Service Announcement Podcast - Using information from "The Dollar Menu" from Food, Inc., "Cost Burden of Obesity-Related Conditions to Society and Health Industry" <a href="http://www.getamericafit.org/statistics-obesity-in-america.html">http://www.getamericafit.org/statistics-obesity-in-america.html</a> , and "The Grocery Gap: Who has Access to Healthy Food and Why it Matters" <a href="http://thefoodtrust.org/uploads/media_items/grocerygap.original.pdf">http://thefoodtrust.org/uploads/media_items/grocerygap.original.pdf</a> , research the accessibility of healthful foods in our community by using the "search nearby" feature in

informative and persuasive PSA.	Google Maps to locate "grocery stores" in our area. Questions to answer: What types of foods are sold at the stores in the search results? Are there "food deserts" in our community? How do we compare to global food deserts in a similarly sized international community? In a PSA podcast, address the topics of access to healthy, affordable foods and the impact a lack of access has on society's health. Take action by suggesting an alternative dollar meal or other recommendations to remedy accessibility (e.g. establish more farmers' markets, community garden project).
4. Thoughtful reflection that establishes clear connections between personal life and the text or resources. Responses to peers demonstrate willingness to consider alternative perspectives and contribute to a positive, supportive learning environment.	4. <b>Online Discussion Board</b> - Students will participate in an online discussion through Turnitin.com to reflect on their own purchases to address the questions: "What do your purchases say about you?" and "What are you choosing to vote for through your purchases?" after viewing <i>Food, Inc.</i> and reading an excerpt from <i>The Walmart Effect</i> .
5. Demonstrate close reading, critical analysis of texts, compare and contrast, form evidence-based claims, argue claims by supporting with valid and organized reasoning, participate in democratic debate process, demonstrate ability to communicate effectively with audience with diverse perspectives.	<b>5. Debate</b> – Class debate on pros and cons genetically modified organisms (GMOs). Use research and information to analyze and evaluate the policies, use of and labeling of GMOs in the United States, the United Kingdom, and at least one other country outside of the European Union.
6. Demonstrate close reading, critical analysis of texts, communicate information with valid and organized reasoning and data, demonstrate appropriate use of language, tone, images to create informative, engaging infographic for audience of peers or adults in our community.	<b>6. Infographic, "The Most Environmentally Unfriendly Foods"</b> – Using a web-based template such as <a href="http://infogr.am/">http://infogr.am/</a> , collaborate in small groups to create an infographic of the world's most environmentally unfriendly foods based on carbon footprints. Your infographic should be representative of the entire globe, not simply North America.

- 7. Thoughtful reflection that establishes clear connections between personal life and the text or resources. Responses to peers demonstrate willingness to consider alternative perspectives and contribute to a positive, supportive learning environment.
- **7. Online Discussion Board** Students will read an excerpt from Michael Pollan's *Food Rules*, "33 Ways to Eat Environmentally Friendly," and Nielsen's "Global Trends in Healthy Eating" to compose a response to these three texts and answer Michael Pollan's question, "What are your food rules?" in an online discussion board on Turnitin.com. Students will be responsible for a complex and thoughtful response to the three texts as well as Pollan's question, and for responding to the posts of at least two other classmates.
- 8. Demonstrate close reading, critical analysis of texts, form evidence-based claims, develop evidence-based questions for further discussion and inquiry, argue claims by supporting with valid and organized reasoning, participate in collaborative and civil discussion, demonstrate ability to listen and consider alternative arguments, demonstrate ability to communicate effectively with audience with diverse perspectives.
- **8. Socratic Seminar** What do you see as the most promising ways to effect change in terms of improving food production? Be sure to address: environmental, economic, and societal (health) impacts. Other topics to explore: What are the biggest barriers to a fairer, global food system? What action can we take as individual consumers to support fair food?

- 9. Use a variety of domestic and international sources, media, and languages to identify and weigh relevant evidence to address globally significant researchable questions. Assess options and plan action based on evidence from text and media and the potential for impact, taking into account previous approaches, varied perspectives, and potential consequences. Selection and use appropriate technology, media...to share insights, findings, concepts, and proposals with diverse audiences.
- **9. Student-Directed Research Paper and Prezi Summary** Based on all topics explored through this unit and the questions you have developed through our readings, analysis and discussions, choose one global food related issue (environmental, economic, or social) for further independent inquiry and develop an action plan to address this global food issue and communicate your findings and recommended action plan through a formal research paper. Upon completion, this research paper and action plan must be summarized into a 3-5 minute Prezi presentation for peer and parent review.

The degree to which students comprehend texts, demonstrate an ability to identify relevant evidence, analyze evidence, identify connections among all class resources, communicate ideas effectively, collaborate, and complete all assignments including those that require outside preparation in a timely manner.

# OTHER EVIDENCE:

Reading guide for Food, Inc.

Reading guide for Fast Food Nation

Informal observation of individual contributions to class discussions of "Immokalee – From Slavery to Freedom"

Contributions to general class discussions of each additional text or resource Complete portfolio of all evidence (texts) and evidence-based claim worksheets, graphic organizers

# Stage 3 – Learning Plan

Summary of Key Learning Events and Instruction

- Introduction Activity Students will visit a series of stations around the classroom that feature a variety of artifacts related to cocoa production around the world. For example: 1) a collection of chocolate bars with different labels (Fair Trade, Rainforest Alliance, USDA Organic, etc.); 2) a chocolate scorecard <a href="http://www.greenamerica.org/PDF/2010chocolatescorecard.pdf">http://www.greenamerica.org/PDF/2010chocolatescorecard.pdf</a>; 3) computers with access to YouTube and the BBC documentary "Chocolate: The Bitter Truth"; 4) a world map projected on the Promethean board, accompanied by global data on cocoa exports by country; 5) an article from a law journal on Hershey's alleged child labor violations; 6) a copy of the Universal Declaration of Human Rights. Students will visit all six stations in small groups to gather evidence independent of teacher instruction or input, formulate questions, and establish ideas about the contents of the upcoming unit. (G1, T2, T3,E3, E6, E7, K1, S1)
- Fair Trade Letter to the Editor Assignment Students will write a self-authored letter to the editor of the Corning Leader to persuade their fellow consumers to shop ethically ahead of Halloween in order to help diminish financial support for human trafficking and child labor in western African nations (Ghana, Ivory Coast). Their task is to inform readers of the existence of child labor in the cocoa industry (based on articles read in class the BBC's "Chocolate: The Bitter Truth"); inform readers about Fair Trade certification and why it's an ethical choice to consider when shopping (Green America's "Chocolate Scorecard"); persuade readers to consider Fair Trade products as their first choice; and to inform readers where they can find out more information on these topics. Letters must be emailed to Editor Stella Dupree and a

- second copy to the teacher. (T1, T3, T6, G2, E1, E2, E3, E4, E6, E7, E9, U5, K6, S5)
- Food Journal and Mapping Project Students will keep a food journal of all foods consumed over the course of approximately three days (at least one weekday and one day on a weekend) on a teacher-provided worksheet. Using this completed worksheet, iPads or computers with internet access, a photocopied map of the world, and colored pencils, students will create their own coding key and illustrate the countries of origin for the foods they consumed (referring to <a href="http://www.mapsofworld.com/world-top-ten/agriculture-and-food-processing.html">http://www.mapsofworld.com/world-top-ten/agriculture-and-food-processing.html</a>). Use Google Maps to calculate and record the approximate distance these food items traveled from origin to consumption. (T1, G1, G2, G4, U1, E1, E3, E7, K1, K4, S1)
- Global Food Prices Students will choose three average meals from their food journal and visit <a href="http://groceries.asda.com">http://groceries.asda.com</a> to research the price of the same or similar food items in the UK and then compare these prices with local food prices here in NY on <a href="https://www.wegmans.com">www.wegmans.com</a>. Using a currency exchange web tool (Google Currency Converter), students will convert British Sterling to US Dollars to compare approximate prices. Students will complete the NYS Evidence Based Claim template for Grades 11-12 from <a href="https://www.engageny.org">www.engageny.org</a> to develop a claim about the distance food travels to reach our plate, and the relative cost to the US consumer versus British consumer. (T1, G1, G2, G4, U1, E3, K1, S1)
- Jamie Oliver's TED Talk: "Teach Every Child About Food" Students will view and listen to Jamie Oliver's TED Talk "Teach Every Child About Food" and practice effective note taking while listening using Cornell style notes. Using their notes, students will identify the central idea of Oliver's speech and as well as one rhetorical strategy used by Oliver. In a short response, multiple paragraph assessment based on Part 3 of the NYS Common Core Regents in ELA, students will explain how Oliver's use of this rhetorical strategy develops the central idea of his speech. (G1, G2, G3, K6, T3)
- Hungry Planet: "What the World Eats" Gathering Evidence to Compare Weekly Food Expenditures Around the World In small groups, students will examine a series of photographs from Time Magazine and Peter Menzel's book *Hungry Planet* (<a href="http://abcnews.go.com/International/photos/hungry-planet-19126014/image-19126020">http://abcnews.go.com/International/photos/hungry-planet-19126014/image-19126020</a>) and collect information from the photos and captions on what average families around the globe purchase for their weekly groceries as well as their average expenditures. Students will be expected to identify each represented country on a map as well as compare and contrast types of food in each family's photo in order to draw conclusions and make evidence-based claims regarding diet and food pricing. On chart paper, each group will create a chart of similarities and differences they found after examining the series of photos, as well as a section that establishes their conclusions. Finally, each group will be responsible for creating and presenting questions for further inquiry based on the information (or lack thereof) gathered in this activity. Each group will present their findings and their chart in front of the class and answer questions and respond to comments from other members of the class. (G1, G2, G3, U1, K6, S2, S3)
- "Immokalee A Story of Slavery and Freedom" –Students will analyze Dr. Martin Luther King's breakfast quote from "The Three Dimensions of a Complete Life" and how their food journal and mapping project reflects this idea. Students will consider "What do you see when you look at this tomato?" before viewing "Immokalee A Story of Slavery and Freedom" (25 minutes)

  <a href="http://www.youtube.com/watch?v=zBc4cOg9-ks">http://www.youtube.com/watch?v=zBc4cOg9-ks</a> from the Coalition of Immokalee Workers which focuses on the life and working conditions of tomato pickers in Florida and the successful Taco Bell boycott. Students will calculate the hourly wage of and daily earnings of tomato pickers based on the information from the video. Students will also explore why Taco Bell was targeted and how the conditions have</a>

improved since the boycott (see <a href="http://blogs.nysut.org/sttp/files/2010/11/speaktruth\_benitez.pdf">http://blogs.nysut.org/sttp/files/2010/11/speaktruth\_benitez.pdf</a> for additional resources). Students will explore how the Coalition of Immokalee Workers continues to advocate for workers' rights and recently protested Wendy's in New York City because of Wendy's refusal to sign on to fair labor initiative (<a href="http://www.thenation.com/article/176715/farmworkers-hit-nyc-protest-wendys-labor-practices#">http://www.thenation.com/article/176715/farmworkers-hit-nyc-protest-wendys-labor-practices#</a>). Finally, students will establish a connection to this issue by identifying abuse of migrant workers in our region of Upstate New York (<a href="http://www.wnyc.org/story/252235-upstate-new-york-immigrant-farmworkers-are-hidden-part-locally-grown-food-movement/">http://www.wnyc.org/story/252235-upstate-new-york-immigrant-farmworkers-are-hidden-part-locally-grown-food-movement/</a>) and discuss powerful rhetoric and occasion as editorials on this issue often appear in major NY newspapers just before Thanksgiving. (T1, T3, G1, G4, U2, U3, E2, E3, E4, K3, S2, S3)

- Food, Inc. (2008) Documentary Students will view this documentary, which highlights the industrialization and corporatization of the United States' food supply, factory farms, and the conditions for workers who labor on these factory farms. Students will complete a viewing guide throughout to collect major evidence and claims presented in the documentary, and then organize these claims and supporting evidence into the following categories for later inquiry: environment, economy, and health. The assignment following the first day of viewing this documentary and the segment "The Dollar Menu" will be to take a picture of food(s) we can buy for \$1. Pictures will be uploaded to a shared Google presentation to which all students will be provided access. At the end of the week, students will analyze our collaborative digital gallery and develop a list of evaluative observations based on the collage (e.g. What types of food can we buy? Are they meals or snacks? Healthy or unhealthy?) Using a graphic organizer, students will compare and contrast our digital collage with examples of what people around the world can buy for \$1 from <a href="https://www.rebelmouse.com/WorldBank/1dollar/">https://www.rebelmouse.com/WorldBank/1dollar/</a> to compose an evidenced based claim. (T1, T2, T3, G1, G2, U2, U3, E2, E3, E9, K5, K7, S1, S3)
- Accessibility and Access to Healthy Foods Students will read the excerpt "A Republic of Fat" from Michael Pollan's *The Omnivore's Dilemma* and analyze the bar graph, "Cost Burden of Obesity-Related Conditions to Society and Health Industry" (http://economix.blogs.nytimes.com/2009/05/20/whats-wrong-with-this-chart/) to analyze and discuss what their views are on the responsibility of the individual versus the responsibility of government in terms of access to and consumption of healthy foods. Students will then read and discuss, "The Grocery Gap: Who Has Access to Healthy Food and Why it Matters" (http://www.thefoodtrust.org/pdf/GroceryGap.pdf). Using this information, students will research the accessibility of healthy foods in our community by using Google Maps to identify food stores in the surrounding area. Questions to answer in the process include: What types of stores are listed in the results? What types of foods are sold at the stores? Are there food deserts in our area? Students will explore how our food deserts compare to a similarly sized international community. Students will use all of this information and their own evidence based claims to create a Public Service Announcement podcast to communicate the lack of access to healthy, affordable foods in our community and the impact this has on society's health. The PSA should suggest alternatives to dollar meals or other realistic remedies to this accessibility issue (e.g. establish more farmers' markets, community garden project). (T3, T4, T5, T6, G1, G2, G3 G5, G6, U3, U5, U6, E3, E4, E5, E9, K5, K7, S2, S3, S4, S5)
- Fast Food Nation The Dark Side of the All-American Meal by Eric Schlosser Students will read excerpts from Fast Food Nation to examine rhetoric and for information on the rapid globalization of fast food, the chemical engineering of food, dangers associated with meatpacking industry, and the effect of the industrialization and consolidation of meat processing on public health. Tentative excerpts to include: Introduction, Chapter 1 "The Founding Fathers," Chapter 5 "Why the Fries Taste Good," Chapter 6 "On the Range," Chapter 8 "The

- Most Dangerous Job," Chapter 9 "What's in the Meat," Chapter 10 "Global Realization," and Epilogue: "Have It Your Way." Students will complete a reading guide throughout the assigned readings. Students will read excerpts from Upton Sinclair's *The Jungle*, including Chapter 5 and Chapter 14 to identify the authors' use of Ethos, Logos, Pathos to support their purpose, and to compare the effects of each publication on government policy and food safety. (T2, T3, T4, G1, G4, G5, U2, U3, U4, U5, E1, E2, E4, E5, K1, K2, K3, S1, S3)
- "What do your purchases say about you?" Online Reflection and Discussion Students will read an excerpt from Charles Fishman's The Walmart Effect: How the World's Most Powerful Company Really Works and How It's Transforming the American Economy (if you do not have this book, you can access the excerpt at <a href="http://www.salon.com/2006/01/23/walmart\_effect/">http://www.salon.com/2006/01/23/walmart\_effect/</a>). Using this excerpt, Stonyfield CEO Gary Hirshberg's quote featured in Food, Inc. about every purchase representing a vote, and the epilogue of Fast Food Nation, students will utilize an online discussion board through Turnitin.com to reflect on their own purchases to address the questions: "What do your purchases say about you?" and "What are you choosing to vote for through your purchases?" (T1, T6, G1, G2, G4, U1, U4, U5, E8, E9, K6, K7, S1)
- Research and Debate: Genetically Modified Organisms "Pro!" or "No!" Over the course of several days, students will research and evaluate national and international policies on the use and labeling of genetically modified organisms in order to participate in a debate on whether or not the US government should prohibit GMOs from our national food supply. Teacher-provided resources: "Making the food and farming industry more competitive while protecting the environment" from https://www.gov.uk/government/policies/making-the-foodand-farming-industry-more-competitive-while-protecting-the-environment/supporting-pages/genetic-modification, "Labels for GMO Foods are a Bad Idea" from http://www.scientificamerican.com/article.cfm?id=labels-for-gmo-foods-are-a-bad-idea, "GMO Facts" from http://www.nongmoproject.org/learn-more/, "World Health Organization: 20 Questions on Genetically Modified Foods" from http://www.who.int/foodsafety/publications/biotech/20questions/en/, and "Fact Sheet: Benefits of Food Biotechnology" from http://www.foodinsight.org/Resources/Detail.aspx?topic=Fact Sheet Benefits of Food Biotechnology. Students will break up into pairs and read a BusinessWeek article (http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a.riwQCsb5 Y), circling the potential risks of the seeds and underlining the potential benefits. Each pair will write a paragraph that summarizes the positions of those for and against using these seeds in India. Discuss how the needs of India differ from those of the United States. Students will research additional sources to support their position both independently and as a collective "Pro" or "No" before engaging in a whole-class debate. Both sides must include evidence from a US perspective and at least two other countries outside of the US. In an effort to include multiple perspectives, the two additional countries included in the debate may not be located on the same continent. (T1, T2, T3, T4, T5, T6, G1, G3, G5, U2, U6, E4, E5, K3, K5, K6, S1, S2, S3)
- Infographic Creation: The World's Most Environmentally Unfriendly Foods and Gallery Walk—Students will consider various types of infographics, then find good examples of each type in the New York Times Multimedia Archive and collections like Richworks's "50 Most Stunning Examples of Data Visualization and Infographics" (<a href="http://richworks.in/2010/04/50-most-stunning-examples-of-data-visualization-and-infographics/">http://richworks.in/2010/04/50-most-stunning-examples-of-data-visualization-and-infographics/</a>). Students will evaluate and discuss: which are most effective and serve their purposes best? Why? Students will use these examples as models for their own infographic. In pairs or small groups, students will research the world's most environmentally unfriendly foods. Factors to consider include: miles food travels from origin to consumption, pesticide use, genetically modified organisms, effect of the crop/harvesting crop on the environment, and other carbon footprint information. Students will synthesize the collected evidence into a single infographic. Infographic builders are available from: <a href="http://infogr.am">http://infogr.am</a> or <a href="http://piktochart.com">http://piktochart.com</a>; it is also acceptable for students to

- create their own infographic without using a web-based template. All sources of information used to create the infographic must be cited in an attached Works Cited. Upon completion, infographics will be displayed in a classroom or hallway gallery for the class to complete a gallery walk and evaluate other groups' infographics based on information presented, global scope of information, quality of information presented, clarity and organization of information, and overall appeal to the audience. (T3, T5, T6, G1, G2, G6, U2, E3, E4, K5, K7, S2, S5)
- "What are your food rules?" Online Discussion Students will read an excerpt from Michael Pollan's Food Rules, "33 Ways to Eat Environmentally Friendly" (<a href="http://healthland.time.com/2012/08/24/33-ways-to-eat-environmentally-friendly/">http://healthland.time.com/2012/08/24/33-ways-to-eat-environmentally-friendly/</a>), and Nielsen's "Global Trends in Healthy Eating" (<a href="http://www.nielsen.com/us/en/newswire/2010/global-trends-in-healthy-eating.html">http://www.nielsen.com/us/en/newswire/2010/global-trends-in-healthy-eating.html</a>). Students will compose a response to these three texts and answer Pollan's question, "What are your food rules?" in an online discussion board on Turnitin.com. Students will be responsible for a complex and thoughtful response to the three texts as well as Pollan's question, and for responding to the posts of at least two other classmates. (T3, T6, G1, G2, G4, G5, U3, E8, E9, K2, K6)
- Socratic Seminar Students will view Birke Baeher's passionate TED Talk on "What's wrong with our food system?"

  (http://ed.ted.com/lessons/what-s-wrong-with-our-food-system-birke-baehr) as an inspiration for our final whole class discussion. Over the course of a couple class periods, students will review all the topics, texts, and notes we have covered and collected thus far in order to formulate their own answers to the following Socratic seminar questions: What do you see as the most promising ways to effect change in terms of global food production (be sure to address impact on environment, economy, and social health)? What are the biggest barriers to a fair global food system? What action can we take as consumers to support fairer, safer, and more environmentally friendly food? Students will participate in a 60-minute Socratic seminar to discuss and explore their responses to these questions. All comments should be grounded in evidence collected from texts, videos, infographics, and other notes collected throughout the course of the unit. Students will be expected to self-reflect at the end of the seminar and evaluate themselves on their preparation and participation in the seminar, and then record questions they still have or new ideas they would like to explore. (T1, T2, T3, T6, G1, G3, G5, U1, U2,U3, U4, U5, U6, E6, E8, E9, K1, K2, K5, K6, K7, S2, S3)
- Student Directed Research Paper and Prezi Summary: Students will choose one global food related issue (environmental, economic, or social) for further independent inquiry and will investigate this global issue and develop a realistic plan of action to address this issue at the local and global level through a formal research paper. Students will present their findings and their action plan to the class and members of school administration in a Prezi presentation, which will later be converted to video format and uploaded to the class' YouTube channel for parents to view. (T3, T4, T5, T6, G1, G2, G3, G5, U2, U6, E3, E5, K3, K5, K6, K7, S2, S3, S4, S5)