



# The Necessity of Food

## Lesson 5 - Sustainable Agriculture: Social

### National Learning Standards:

- CCSS.ELA-LITERACY.RH.11-12.7: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
- CCSS.ELA-LITERACY.RST.11-12.9: Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

**Grade Level:** 9-12

**Lesson Length:** 60 minutes

### Learning Objectives:

Participants will:

- Understand the role that agriculture plays in society.
- Compare aspects of life for farmers, ranchers, and farm workers with those in urban settings and occupations.
- Explain how sustainable agriculture enhances local communities.
- Describe aspects of food access such as food insecurity, poverty, language barriers, and food deserts that affect the social aspect of sustainable agriculture.

### Materials and Equipment Needed:

- Social Sustainability PowerPoint
- Paper and writing utensils for students
- Computer and internet access for individual research needs
- Web-based service (Skype, Google Hangout, Adobe Connect, WebEx, etc.)
- One of the following options for each group:
  - Variety of materials for visual presentation (large paper, markers, etc.)
  - Software to support the creation of a visual presentation
  - KWL posters from Lesson 1



## Cross-Curricular Connections:

Use these suggested adaptations to make learning across the curriculum easy!

Science	Technology	Engineering	Mathematics
Connect with a local registered dietician or nutritionist to address the science and nutrition of food. Consider asking the presenter to focus on how socio-economic factors affect food choices in America.	Encourage students to reconnect with the farmers or ranchers from their project to learn more about the technology they use on the farms and ranches. Have students present their findings.	Have students research and design alternative routes for food to travel from producer to consumer, taking into account shelf life, fragility, etc.	Have students research the breakdown of a dollar in the food system. For current data, check out Food and Farm Facts, available in the store at <a href="http://agfoundation.org">agfoundation.org</a> .

## Teacher Preparation:

- Gather materials to support students in the lesson.
- Reserve access to the computer lab, if necessary.
- Review background information below:
  - The underlying importance of agriculture in a society is a factor often overlooked. In a developed country, such as the U.S., where food is readily available and most people do not have to grow or raise their own supply, the attitude towards production agriculture can be at best apathetic and at worst judgmental. Agriculture provides items for basic needs so that others can focus on the betterment of society in alternative ways.
  - Food systems rely on various factors such as trade, supply and demand, and seasonality, and many internal and external risks in agriculture affect the end product. However, a population's ability to purchase a product also limits its availability in a community. Food insecurity, poverty, language barriers, and food deserts are some of the social factors that influence food acquisition.
- Reserve access to the computer lab/cart, if necessary.



## Lesson

### Introduction (Anticipatory Set) • 5 minutes

**STEP 1:** Have students brainstorm what life was like 100 years ago in their area. Give students a short period of time to do this, and then ask them to highlight any information related to food, or how they would secure food. Ask students to compare it to how they get food today. Conclude by asking students to consider the following question, “If you had to farm eight hours a day to feed your family, what things would you not be able to do that you enjoy today?”

- o *In this lesson, we will take a look at the role that agriculture plays in creating a sustainable society. We will also discover agriculture’s role in communities and examine the reality of food access in our community.*

### Input and Modeling • 10 minutes

**STEP 2:** To start the lesson, students will track a simple, non-processed food product (fruit, vegetable, or meat) from a farm that grows the product to the local community. Have students get into small groups of four. Each person in the group will assume one of the jobs below:

- o **Researcher** – the student will gather research on the food product origin. This will include researching how the food product is grown or raised and may involve interviewing a farmer or rancher that raises this product.
- o **Researcher** – the student will study food access in the local community around the school. The research can include Feeding America’s Map the Meal Gap website [map.feedingamerica.org](http://map.feedingamerica.org) for community statistics around food.
- o **Researcher** – the student will work with the other two researchers to study the transportation options and routes for the food product.
- o **Map Maker** – the student will work with all researchers to create a visual representation of the route for the food product from the farm to the school community (paper or computer-based).

Groups may use a variety of materials to compile and present their final product. The end goal of the project is to describe the following:

- o The product they chose
- o The farmers/ranchers that grow the product
- o What they learned about transporting the product to their local community
- o How the product is distributed / available in their local community
- o The opportunities and challenges that are apparent throughout the whole system

### Checking Understanding and Guided Practice • 5 minutes



**STEP 3:** Give students guidelines for their small group project, including time, materials, and overall expectations.

**Note:** this project may take one class period or could stretch out over multiple class periods at the teacher's discretion.

## Independent Practice • 30 minutes

**STEP 4:** Allow students to work in their small groups, giving guidance as needed. Have students present their food maps to the class (or larger audience). Have them describe:

- The product they chose
- The farmers/ranchers that grow the product
- What they learned about transporting the product to their local community
- How the product is distributed / available in their local community
- The opportunities and challenges that are apparent throughout the whole system
  - While listening to presentations, have students fill in the notes page, writing down the different products and the opportunities and challenges that are apparent throughout the whole system.
  - After all groups have presented, have students identify the overlapping opportunities and challenges and how they relate to their local community.
  - As an optional extension, set up a trip into the local community to address food insecurity, poverty, language barriers, and food deserts as some of the social factors that influence food acquisition.

## Wrap-Up (Review, Assess, Challenge) • 20 minutes

**STEP 5:** Have students individually, or in pairs, visit [www.agfoundation.org](http://www.agfoundation.org) and complete the “Sustainable Agriculture: Social” module within the

“Sustainable Agriculture Online Learning Experience” [https://www.agfoundation.org/files/sustainable\\_agriculture\\_rise/#/](https://www.agfoundation.org/files/sustainable_agriculture_rise/#/)

- Challenge students to review the content and reflect in their notes on two new concepts they discovered, and one question they still have.
- Have students share their reflections and note information for continued investigation.

## Know, Want to Know, Learned (KWL charts)

While the students are working online, post the KWL posters up on the walls (if they aren't there already). “Know” and “Want to know” should already be filled out, and “Learned” should be blank.

- Once students review the e-content, direct them to recall filling out the K and W posters. Have students take a few moments to review their notes and activity sheets from the past five lessons.
- Then, have students write what they've learned on the L posters around the room or have them share out loud, and you can capture their thoughts on one poster.
- **Questions to consider:** What did you learn? What did you find most interesting? Why was it valuable to learn about sustainable agriculture?



Products	Opportunities	Challenges

List the overlapping opportunities.

List the overlapping challenges.

How do these opportunities and challenges relate to your local community?



## References:

<sup>i</sup> Feeding America. (2020). Map the Meal Gap. Retrieved from [map.feedingamerica.org](http://map.feedingamerica.org).