

TTCD Lesson Plan (12): Journey from Field to Fork

Unit: Food Systems	Grade(s): 5-12	Class Size: 1-30	Lesson Duration: 45 minutes	Location: Classroom and school yard
Topic(s):	Food systems, food justice, identity and belonging			
Student Prerequisites:	This lesson is intended to follow the activity in TTCD Lesson “What is a food system?”			
Essential Questions:	• In what ways are we a part of the food system? • What other systems are we a part of? • Why is it important to know about the “journey” our food goes through?			
Student Objectives:	1. Students will begin to understand the concept of the food system. 2. Students will understand that they play a role in the food system. 3. Students will understand that the food system does not function the same for all people.			
Standards:	Cultural Standards: B.4: Culturally-knowledgeable students are able to build on the knowledge and skills of the local cultural community as a foundation from which to achieve personal and academic success throughout life by: identify[ing] appropriate forms of technology and anticipat[ing] the consequences of their use for improving the quality of life in the community.			
Local Context:	Developing awareness of our food system helps us make informed decisions about what we eat. Through food, we can make positive changes in our communities. In this exercise, students trace familiar snack foods through the food system and reflect on their role in the system. Students are encouraged to develop their own opinions and understanding of the food system they are a part of. <i>As a facilitator, it is important to keep in mind the social and economic barriers people face when it comes to accessing healthy, affordable, and culturally appropriate food.</i>			
Vocabulary:	System: a set of interdependent parts forming a complex whole; a set of principles or procedures according to which something is done Food system: the journey that food travels from field to fork and beyond, which includes growing, harvesting, processing, packaging, transporting, marketing, consuming, and disposing. It includes the inputs needed and the outputs generated at each step Food Security: the state of having reliable access to a sufficient quantity of safe, affordable, and nutritious food Food Justice: a person’s right to affordable, nutritious, fresh, and culturally			

	appropriate food regardless of race, class, gender, ethnicity, citizenship, ability, religion, or community Parts of the food system: Growing: All steps involved in producing the raw food. Steps could include farming, foraging, fishing, gardening, planting seeds, applying fertilizers, watering crops, harvesting, storage, and more. Processing: All steps needed to prepare food for distribution and eating. Steps could include packaging, chopping, canning, preservation, adding spices, enriching with nutrients, cooking, slaughter, deboning, and more. Distributing: All steps and materials involved in transporting food to places of access and eating. Steps and materials could include wholesaling, warehousing, transportation, trains, trucks, ships, cars, and more. Accessing: This is how we obtain our food through various societal constructs including retail (ex. farmers market, supermarket, box stores), institutional food service (ex. schools, hospitals, jails, places of worship), emergency food programs (ex. food pantries), family gatherings, and more. Marketing can be an important component of access. Eating: All steps needed to consume food. This could include cooking, preparing, purchasing, celebrations, rituals, and more. Disposing: This is what happens to food scraps and packaging after eating. Disposal could include composting, sending waste to the landfill, renewable energy, animal feed, and more.
Dena'ina language words:	
Materials:	• Large whiteboard or poster paper • 8 Post-It papers • 6-18 colorful poster markers • Cards or popsicle sticks labeled with each “snack food” (number of different snack foods equals the number of groups in the class). Examples include: ○ Popcorn ○ Sliced apples ○ Baby carrots ○ Hummus ○ Yogurt ○ Banana ○ Snacking nuts ○ Potato or tortilla chips • Actual snacks to match the “snack foods” used in the exercise • Half-sheets of plain paper

	Colored pencils				
Instructor Prep:	Write the following questions on the board: What is a system? What is a food system? Leave space to write a definition of each. Organize the room into six stations, each with a large poster paper taped to the desk or wall. Write a large title at the top of the poster paper at each station: 1. Growing, 2. Processing, 3. Distributing, 4. Accessing, 5. Eating, 6. Disposal Consider how you will divide the class into groups of 1-4 students each.				
Introduction:	Have students share with a partner or table group what they think a system is. Then, have one student from each group share their group's definition aloud, and develop a class definition of a system. Write this definition on the board. Pair and share again, this time to develop a definition of a food system. Explain that today we are going to break down the food system into parts. First into six categories, then even further into every part we can think of.				
Directions:	- Explain to the students that each of the stations around the room represent parts of the system that each snack, meal, or soda we consume goes through on its "journey". Each group will be given one type of snack food, and they will determine what sort of actions or activities take place at each station for their food. - Complete an example of a snack's "journey" on the whiteboard as a class, using a simple food, like a banana: <table border="1"> <tbody> <tr> <td> Growin g: plantin g, fertilizin g, insectic ide, cutting the bunch from the tree </td><td> Proces sing: washin g, applyin g labels, cutting and drying for chips, packagi ng </td></tr> <tr> <td> Distrib uting: shippin g, driving, </td><td> Acces sing: grocery store, market </td></tr> </tbody> </table>	Growin g: plantin g, fertilizin g, insectic ide, cutting the bunch from the tree	Proces sing: washin g, applyin g labels, cutting and drying for chips, packagi ng	Distrib uting: shippin g, driving,	Acces sing: grocery store, market
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storage	s, advertising
Eating: peeling , chewing, sharing	Disposal: household trash, landfill, compost

3. Divide the class into 1-6 groups. Distribute a few markers and a “snack food” to each group. The snack can be a card or popsicle stick labeled with that food, or the actual food for them to eat during or after the activity.
4. Start each group at a different station, and give them about 2-3 minutes to write down their ideas before rotating to the next. For each station, remind students to think about *who* is involved and what the *inputs* are. Refer to the vocabulary list to help students add actions/activities to the posters.
5. For older students, at one or more of the posters, instruct students to include a description of the technology used to complete this step of the journey. Pause and discuss some of the benefits and drawbacks of some of the technologies (benefits may include more food, healthier food, less expensive food, healthier farm/factory workers; drawbacks may include air pollution, noise pollution, excess nutrients in the water, soil erosion). For younger students, do something similar but choose one snack and one step to describe and discuss as a whole class.
6. Once all groups have written something about their snack’s “journey” at each station, give students a few minutes to look around at what other groups wrote before returning to their seats. Enjoy eating the snacks during this time!

Wrap Up:

Ask a few reflection questions to the group, writing down a few words on the board for each answer that is shared.

- Where do you see yourself in the food system?
- Do you know anyone whose job is involved in the food system? (e.g. farmer, truck driver, grocery store worker, etc.)
- What other systems do we participate in? Do you think we could do this same activity with another type of system?
- In this activity, we used simple “snack foods” as our examples. What would this look like with something more complicated, like processed snack foods, candy, or processed meat and dairy?
- What does this journey look like for something grown or harvested locally, like salmon, moose, blueberries, or garden tomatoes? Draw the journey on the board as students explain it to you. Instruct students to identify some of the technologies used to complete the journey. Pause and discuss some of the

	benefits and drawbacks of these technologies (benefits may include easier harvest, more participation in harvest, safer harvest; drawbacks may include overharvest, noise pollution, air pollution, excess nutrients in the water, soil erosion). <i>Evidence of Learning:</i> Have each student pick a favorite snack food that hasn't already been described that they get from the grocery store, and a favorite snack food that hasn't already been described that they get from the local land or water. Hand out the half-sheets of paper and a variety of colored pencils, and direct students to create a diagram/drawing of the journey each food takes to get to them. Evidence of student learning includes reference to all 6 steps in the food journey (unless some are irrelevant, i.e. processing, distributing, and accessing may be lumped together for many wild and garden foods).
Lesson Adaptations:	Instead of writing, have students draw their food at each station. Go around the room as students are drawing and ask them about what is happening to their snack at each part of the food system.
Extensions:	• Follow this lesson with a field trip to the school garden, the landfill, or the school kitchen. Ask students what parts of the food system they observe during the field trip, and what foods might journey through here? • Invite a community member or elder to speak to the class about traditional and ancestral foods of the region • Share a video of a food's journey from field to fork, such as this one about carrots in school lunches
Reflections:	How did it go? What did students understand most/least? What would you change about instruction or lesson plan?
Resources Used:	This lesson was adapted from the Cornell Garden-Based Learning program "Project S.O.W. (Seeds of Wonder): Food Gardening with Justice in Mind" Lesson 3.3: https://gardening.cals.cornell.edu/lessons/project-s-o-w-seeds-of-wonder-food-gardening-with-justice-in-mind/unit-3-sowing-seeds-of-curiosity/3-3-journeying-through-our-food-system/