



Food Miles

Total time ~40 minutes

Overview:

Students will learn about food miles and how food travels from the farm, where it is grown, to the grocery store. They will learn how to determine where food they buy comes from, and the differences in the taste and environmental impact of food depending on where it is grown. Students will learn about the environmental effects of transporting food long distances.

Objectives:

After this lesson students will be able to:

- Define the term “food miles.”
- Evaluate the difference in taste and environmental impact between locally grown food and imported food.
- Explain how to determine where food is grown.
- Assert why they should buy and eat local foods.

Preparation:

- Collect produce from the garden and produce from another state/country from the grocery store.
- Collect labels, shelf cards, or pictures from local produce and imported produce. Place one on each student’s desk.

Vocabulary:

- Country of Origin Labeling (COOL) Law
- locally grown
- seasonal food
- food miles
- fossil fuels

1. Learning Activities:

Materials:

- Labels of produce grown in other states.
- Pictures of shelf cards, for produce grown in California and for produce grown in other states or countries.

On the Board:

- Vocabulary
- Student Reflection Questions

Suggested Snack:

- Organic produce in season, from the garden
- Organic produce not in season, grown in another state

1. Warm-Up (5 min)
 - a. Prepare questions to get students thinking about food miles.
 - i. Who goes grocery shopping in your household? Where do they go?
 - ii. Who makes the decisions about food in your household? Do you have any say?
 - iii. What did you eat today that's local? What food did you eat that you think travelled the farthest?
2. Presentation (10 min)
 - a. Introduce the students to the idea of food miles.
 - i. Food miles is the distance between where the food is grown and where it is purchased.
 - ii. Explain how the Country of Origin Labelling law requires retailers to label meat, fish, fruits, vegetables, and nuts according to where it was grown.
 - iii. You can find that information in the grocery store, usually on the package or produce shelf cards (California Fresh, Florida Fresh, etc). This provides consumers with information about their food.
 - b. Direct students to look at the labels on their desk and try to find where it states the place of origin.
 - c. Ask students what locally grown means.
 - i. In LA, it means it was grown 200 miles or less from where it's sold.
 - ii. Ask if any students have lived or visited somewhere else, and what kinds of fruit or vegetables they ate there and if they were different than what they eat in LA. Can you get those foods in California? Where are they grown?
 1. Different foods are grown in California than other places.
 - d. Ask students what seasonal means, how you know if a food is seasonal, and why eating seasonal food matters.
 - i. Tell students that seasonal foods are typically grown locally, and that seasonal means the food is at its peak. These foods are the freshest, have the best flavor, and are usually the cheapest.
 - ii. How do we know something is seasonal?
 1. Answer - The price is usually low because there is so much of it. For example, if an apple is 59 cents and an orange \$2, the apple is seasonal.
 - e. Explain how locally grown food often tastes better, since it is harvested at the best time.
 - i. Imported food is picked before it is ripe because it has to travel a long distance and not get damaged in transport.

- ii. It's then sprayed with gas once it arrives at its destination. This process makes the food ripen artificially so it's ready to be sold, but the artificial ripening causes produce to suffer a loss in taste and nutritional value.
 - iii. Can you think a vegetable or fruit in which this happens? (Example - bananas, tomatoes)
 - f. Ask students - what the problem is with transporting food long distances?
 - i. Answer - There is an environmental impact, since it burns fossil fuels and releases a lot of CO₂. Faster methods of transportation release greater quantities.
 - g. Explain the problem with CO₂.
 - i. It increases global temperature and leads to sea ice melting and rising sea levels.
 - ii. Increases pollution, which harms air quality and can lead to asthma, and increases natural disasters such as wildfires.
 - h. Ask students how they could reduce food miles. How could they have zero miles?
 - i. Answer - A garden.
 - i. Show video
 - i. <https://www.youtube.com/watch?v=b7rn5hH5XN8>
 - ii. Ask students for their thoughts on the video.
 - 1. What's one thing you learned from the video? (Ask 3 people)
 - 2. If there's no replies, ask - when you walk to the grocery store down the street, does that mean you have 0 food miles? (No, depends where the food itself comes from)
3. Activity Options (15 min)
- a. Option 1:
 - i. Set up a debate.
 - ii. Split up the class into small groups (4-5 students). Give each group a fruit or vegetable and whether they're arguing for or against long transportation distances. Give each group a state to "live in."
 - 1. Example - one group in North Dakota argues for long distance transportation of apples and one argues against; one group in Florida argues for long distance transportation of tomatoes and one argues against.
 - iii. Students have 5 minutes to prepare their arguments.
 - iv. Set up a debate between groups with the same fruit or vegetable.
 - v. Each group has 5 minutes to present their argument to the opposing side.
 - vi. Come back together as a class and have each group report a point that came out of the debate. Make a master list of all the pros and cons.
 - b. Option 2:

- i. Show produce labels (or pictures) from the grocery store.
 - ii. Have the students guess where the food was grown and where the label was in the store.
 - iii. Reveal the answers
 - iv. Pick a few foods/labels and discuss the extent of the transportation.
 - 1. Start at the state the food was grown in, and count how many states it travelled through before arriving at its destination. Each state receives 1 point.
 - 2. Compare the number of points between each food to show which travelled the least and the most.
 - c. Option 3:
 - i. Students write down everything they ate for their last meal and guess where each food was grown.
 - ii. Have a few students share, and reveal where foods are typically grown. For some foods, they may need to think about the different ingredients.
 - 1. Example - student shares they ate toast and scrambled eggs for breakfast. Reveal that wheat is usually grown in the Midwest and eggs are from many states, including California.
4. Snack (5 min)
- a. Serve organic produce in season from the garden.
 - b. Serve organic produce not in season grown in another state.
 - c. Ask students if they can taste the difference between the two.
5. Have students answer the Reflection Questions in their garden journals. (5 min)

3. Student Reflection Questions:

- 1. Why is it important to know where your food comes from?
- 2. How will you know where your food comes from?
- 3. What are ways to find out where your food comes from?

4. Assessment Questions:

- 1. What is the cost of food miles?
 - High amounts of food miles pollutes the environment by releasing CO₂.
- 2. How do you find out where your food comes from?
 - Look at produce labels or shelf cards

This lesson was developed by Kasey Hegelein, a UCLA intern. To contact her, please email kasey.hegelein@gmail.com.
