Transportation and Food Miles
By Land, Air, or Sea

Students will discover how agricultural commodities are transported from producers to consumers.
How does food get to the grocery store?
supply chain: the sequence of processes involved in the production, processing, and distribution of a commodity
Transportation is a critical part of the supply chain. In the United States, food is shipped an average of 1,500 miles before being sold.
Modes of transportation used by the Falling Food Company to ship food around the world:

- Helicopters
- Trucks
- Freighter ships
- Airplanes
- Horses
- Barges
Modes of Transporting Agricultural Products

Trucks provide fast delivery and controlled temperatures for perishable foods.
Modes of Transporting Agricultural Products

Box cars, refrigerated box cars, covered hoppers, and tank cars are used to ship food by rail.
Modes of Transporting Agricultural Products

Airplanes are the fastest of all types of transportation. Air transport is used for high value and perishable products that need to travel long distances.
Modes of Transporting Agricultural Products

Cargo ships are used to transport large quantities of items across oceans and seas. They can hold as many as 18,000 shipping containers.
Modes of Transporting Agricultural Products

Barges are mostly used to carry freight on smaller inland waterways. Barge transportation is important to U.S. agriculture because it provides low-cost transportation from major production areas to coastal areas for export to foreign markets.
Transporting Agricultural Products Look Books
Moving Commodities

- Milk
- Bananas
- Christmas Trees
- Fish
- Soybeans
Shipping Scenarios
Food Miles

Students will explore the economic and environmental benefits of buying locally grown food.
How much of every dollar you spend on food goes to the farmer?

Respond at PollEv.com/nationalcent612 or text NATIONALCENT612 to 22333 once to join, then A, B, C, D, or E.

- $0.50
- $0.02
- $0.16
- $1.00
- $0.85
Where Does Your Food Dollar Go?

Farm Cost, breakdown of 16 cents:
- 16.5% purchased feed
- 15.4% fertilizer, seed, crop-protecting chemicals
- 16% capital upkeep and replacement
- 11.7% farm labor
- 9.8% interest and property taxes
- 5.4% fuel, electricity
- 6.4% purchased livestock
- 2.5% marketing, storage, transportation
- 5.8% rent
- 10.5% miscellaneous

Off-Farm Costs:
- Marketing expenses associated with processing
- Wholesaling
- Distributing
- Retailing of food products
Choose your favorite meal from the menu choices.
Predict how many miles your meal has traveled.
Use a website or app such as Google Maps or MapQuest to find the distance from your hometown to the farm where each of the main ingredients were grown or raised.
Record the miles on the Food Miles activity sheet.
Calculate the total miles the ingredients for your meal traveled.
Compare the total miles with your prediction.
Why does food travel long distances?

- **Population Density:** Some areas do not have enough local farmland to support their local populations.

- **Out-of-season Preferences:** In some areas, food production stops during the winter. Local food options are limited unless food is preserved. Transporting foods from other locations provides people with a year-round variety of food options and nutritional diversity.

- **Climate and Soil Conditions:** Some climates are better suited than others for growing certain crops. It costs less for farmers to focus on products their climates are best suited to grow. Extra food can be exported to other areas.
Locavore: a person whose diet consists only or principally of locally grown or produced food.

Why would someone be motivated to be a locavore?

- **Economic**: When you buy local products, more money stays in your community.
- **Environmental**: The less miles a product travels, the less fossil fuels are needed to transport it. Reducing food miles cuts down on fuel consumption, air pollution, and greenhouse gas emissions.
- **Fresher Food**: The farther food is transported, the amount of food lost to spoilage increases. Local food is typically fresher than food that has travelled long distances.