



Planes, Trains, and Automobiles: A Transportation Tour

Middle School Food and Agricultural Literacy Curriculum

Precepts

- C. Vision
- C2. Conceptualize ideas

National Standards

- CS.01.03.01.b. Utilize visioning skills to develop a plan.
- FPP.01.01.01.b. Evaluate changes and trends in the food products and processing industry.
- FPP.02.03.01.a. Explain techniques and procedures for the safe handling of food products.
- NL-ENG.K-12.12 – Applying Language Skills
- NS.5-8.3 – Life Science
- NS.5-8.6 – Science in Personal and Social Perspectives
- NSS-EC.5-8.3 – Allocating Goods and Services
- NSS-EC.5-8.10 – Market Institutions
- NSS-US.5-12.6 – Era 6: The Development of the Industrial United States (1870-1900)

Student Learning Objectives

- As a result of this **unit** the student will be able to...
- Recognize how food product pathways affect consumers.
- As a result of this **lesson** the student will be able to...
- Explain how transportation makes it possible for agricultural products to move from the farm to the consumer.
- List at least three ways food travels.

Content Outline

Objective 1. Explain how transportation makes it possible for agricultural products to move from the farm to the consumer.

- I. **History of food and the evolution of agriculture and transportation: once *hunters and gatherers*, now producers and consumers.**

Time

Instruction time for this lesson: 45 minutes.

Resources

Herren, R. (2004). *Exploring Agriscience*. Albany, NY: Delmar.
National FFA Organization. (2003). *LifeKnowledge Precepts and Signs of Success*.

Tools, Equipment, and Supplies

Music player
Food products/packages/labels – at least 10 (more than 10 will help with larger class sizes)
Butcher paper – long enough to make a mural and provide each student with a 10inx10in piece (or bigger if you have enough paper)
Markers/crayons/colored pencils
Overhead projector/transparencies
MS.FS.1.3.TM.A – one per teacher
MS.FS.1.3.TM.B – one copy of each image
MS.FS.1.3.ASSESS.A – one per student
MS.FS.1.3.ASSESS.B – one per student to be used by the teacher

Key Terms

The following terms are presented in this lesson and appear in ***bold italics***:

Hunters and gatherers

Civilization

Farmer's markets

Conceptualize

- A. ***Hunters and gatherers***: traveled to find food by hunting and gathering any edible plants and animals they could find.
 - 1. Before the discovery of agriculture and transportation, survival was based on hunting and gathering.
 - 2. Families constantly traveled, often by foot or using animals like horses, to find new food when the food supply in their current home diminished.
 - 3. ***Hunters and gatherers*** lived in a time before the development of transportation or shopping. They had to find food rather than have food brought to them.
- B. The global change of society and agriculture: people learned how to farm and transportation evolved.



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Interest Approach

Bring to class a variety of at least 10 food products or labels from food product companies that originated in a place other than the city/state you live in (if you are able to plan ahead, you can have students bring products in the day before). The food products should have distinct labels identifying where the particular product originated. You may already have these food items at home. You can also include pictures or brands and identify where the headquarters for the brand is located. Have the products and labels set up at the front of the room so they are visible to the students as they enter the room and take their seats. Once class begins, start a discussion about different food products and how they get to our supermarkets.

As you can see, today we have many different food items on display. Some of you might be familiar with these items since you may also have them at home in your pantry. Some of these items may be new to you. Either way, these products somehow ended up in our local grocery stores. We are going to find out exactly how well we know these products. Today we want to find out exactly how far these foods had to travel to get to our local grocery store. When you hear the music begin, I am going to pass each of these items around the room. You will each have the opportunity to examine the product and see if you can determine where the products came from. You will need a sheet of paper to make a list of all the places you think the products came from. When the music stops, put your pencils and the products down and we will discuss our lists. What questions are there?

Start music. Give students enough time for this activity to look at about five items, so each student should have at least five locations written on their lists. Be sure that there are products circulating all sides of the room so all the students are working.

When the activity is complete and the music has stopped, take a moment to allow the students who end up with a product to bring them back to the front of the room.

Great job! What do you notice about the places on your lists?

Possible responses: They are not around here, they come from far away, they are foreign countries, they are scattered all over the country, etc.

Right! Even though we found these products in our local supermarket, many of the items we purchase are not from our hometown.

1. Once people learned how to farm, they were able to produce enough food to spread and share across the land, and this allowed people to settle in one location rather than having to move to find food.
 2. **Civilization:** a developed society.
 3. As **civilizations** began to take over the land, there was a higher demand for transporting food.
- C. Agriculture in the local community in today's society.
1. **Farmer's markets:** a local market where farmers come together and sell produce and other products to the local community. Brings the farm to the consumer.

Objective 2. List at least three ways food travels.

I. Food travels from all over the country and globe.

- A. Current modes of transportation for food include: planes, trains, trucks, boats.
1. The first forms of transportation: animals like horses and mules to carry items, horse and carriage/wagons, and boats/ships.
 2. Boats/ships: carry large, heavy cargo across the oceans.
 3. Trains: fast and efficient for transporting food items and are widely used today. They can also be used to transport live animals to different locations.
 4. Trucks: most common automobile used to transport food, and are often in the form of tractor trailers or tankers, like the milk truck.
 5. Airplane: made it possible for food to be quickly transported all over the world.
 6. Trains, trucks, planes, and boats are all temperature controlled to ensure that the food stays fresh while it is being transported.



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These products travel long and short distances to get here, sometimes hundreds or thousands of miles. We are very lucky that all we have to do is go to the supermarket and everything we could ever want to eat is right there because there was a time when we were not that lucky.

Summary of Content and Teaching Strategies

Place the attached images from **MS.FS.1.3.TM.B** around the room creating image stations. The images will be used to help teach the content for this lesson. You will move around the room to each image station like a tour guide, explaining how each image tells the story of how transportation makes it possible for agricultural products to move from the farm to the consumer. Depending on class size and design of the room, another option is to have the students stand and walk to each station with you. This method will be used to teach each objective.

Objective 1. Explain how transportation makes it possible for agricultural products to move from the farm to the consumer.

Welcome to Transportation Tours! We just finished brainstorming all the places our food comes from. We know that the food in our grocery stores comes to us from different cities and states within the United States, and in many cases, agricultural products even come from other countries. The Transportation Tour is going to take us on a journey to explore the ways transportation makes it possible for agricultural products to move from the farm to you.

Make your way to the first image, which will be a picture of **hunters and gatherers**.

Let's begin by thinking back to a time before advanced **civilizations**. **Hunters and gatherers** faced major challenges. Let's have a volunteer remind us of who exactly the **hunters and gatherers** were.

Pause and allow students to respond. Possible responses: people who had to hunt to find food, they traveled to find food, etc.

Great! **Hunters and gatherers** were people just like us, only they lived in a time before grocery stores, and they hadn't discovered agriculture just yet.

So, they traveled constantly, using up the food supply in one place, and then migrating to the next place where they could find a fresh food supply. They hunted for edible animals and gathered edible plants. That's how they survived. What questions are there? So you might be wondering what this has to do with transportation. Let's find out – follow me to the next stop on our tour, the **civilization**.

Make your way to the next image which is the **civilization**.

What do you see in this image?

Possible responses: people living together, a city or town, people working, buildings, etc.

Correct! This is **civilization**. Society began to change when people finally learned how to grow their own food and tame animals. People didn't have to travel as much because they learned how to produce food in one area, so as they settled down in one location, **civilizations** were born. Just like we live in civilized communities where everything we need is right here. Another cool thing about today's society is that farmers share their wealth of food with us through places like farmer's markets, just like in the days of early **civilization**. **Farmer's markets** allow local farmers to bring their crops or meat right to the community, so rather than going to the grocery store, you can get farm fresh food products from farmers themselves at the farmer's market.

It really reminds us of the way **civilization** used to be. The exciting thing about **civilization** was that since people learned how to produce food, they had so much of it they realized it could be transported and shared with others. As our world population continues to grow we know that farmer's markets would not be sustainable to feed everyone around the world, especially those areas that may not have access to farmer's markets. To help provide food for our growing population we have large-scale farming operations that grow large quantities of food that can be shipped all over the world. What questions do you have? Great. Let's visit the next stop on the tour to learn about the forms of transportation that make this all possible.

Make your way to the next image, which portrays different types of transportation.



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Objective 2. List at least three ways food travels.

Thinking back in time, how did people travel?

Possible responses: animals like horses, mules, by foot, trains, boats, etc.

Excellent! All of those are correct, and food used to travel, and in some cases still travels, through those methods. Food can travel through boats or ships, trains, automobiles such as trucks, and even planes. The one unique aspect about transporting food through these methods is that, depending on the food products, the planes, trucks, trains, and boats are often temperature controlled to keep the food fresh during transport. That's much different from the planes, trains, trucks, and boats we are used to traveling in.

Trains are great for transporting food throughout the United States, and the same goes for trucks. But ships and planes help us send food to other countries and retrieve food from other countries. A truck might stop at a factory that just processed wheat into bread in Kansas, and before you know it, that truck has delivered bread to 10 different surrounding states. Food travels fast, much faster than it traveled in the days of horse and carriage, as you can imagine. What questions do you have about modes of transportation? Awesome! Thank you for joining me on the Transportation Tour! We just learned about the evolution of society and agriculture and the ways that transportation helps food get from the farm to your plate. Now we are going to put this new knowledge to work!

Using the Picasso e-Moment®, students are going to use their creative, artistic abilities, in addition to the knowledge gained on the tour, to create a mural of the transportation evolution. The mural must include at least three modes that food travels. Cut a large sheet of butcher paper into segments to allow students to draw their individual pictures. When all the segments are complete, have the students put the them together by taping them to a long, solid sheet of butcher paper. Then find a place in your classroom or in the media center or cafeteria to display the mural.

Ask the students the following questions:

If you were an artist, how would you represent this information?

Possible responses: through drawing, pictures, etc.

What would be included in the picture?

Possible responses: the major events, important people, places, or things, etc.

Fabulous answers! Think about how would you portray the relationships that exist in this information?

Allow students to quietly reflect on this question to think about what they would personally do.

In a moment, we are going to use our creative abilities to create a class mural. The mural is going to be a creative collage that will depict the transportation evolution. It will include pictures that will inform people how food is transported. To do this, we are going to practice conceptualizing ideas and information.

By taking information and turning it into a picture or image, we are transforming concepts of words into our creative ideas through art, which is to **conceptualize**. We also do this in life when we have an idea about something we want to do and are asked to determine how to make that happen. For example, if I want to start a business, I might have an idea of the type of business I want to open and what that business might look like. So I would have to **conceptualize** those business plans by creating a proposal to share with an investor to convince them to help me start my business. This means you are taking your ideas and turning them into something more. What questions do you have?

Great. When I say ARTIST, use the information we learned today to include the key words and concepts from our Transportation on a mural. You have the freedom to create a design based on your preference of what we learned today. So if you have a favorite part that we learned about, you can use that for your design and include the key information only for the concept you are drawing.

On the back of your drawing, please write your name and the content you are drawing so that I can identify your work to give you credit for completing the assignment. Since we are going to hang the final product somewhere around the school, we want members of our school community to learn something about food transportation from looking at our mural. So you can include key words to help describe your images, but we really want your drawings to represent the information. An



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outline with key information will be on the overhead projector if you need specific details, and the images from our tour are still around the room to refresh your memories. But remember not to simply copy those images onto your papers – be creative! Since we are all drawing individual pictures, our mural is going to be diverse and creative. All the materials you need are up here at the front of the room, and you can get those once we begin. You will have 15 minutes for this activity. What questions are there? ARTIST!

You can extend/adjust the time limit for the activity if you have more time left in class. When the students have completed their drawings and put the mural together, decide on a title for the mural as a class, and then decide where in the school to display the mural. Give students a few moments to look at each other's artwork when the mural is complete. Use **MS.FS.1.3.ASSESS.B** and **MS.FS.1.3.TM.A** to evaluate the students' work. By using the outline with the rubric, you can quickly check for content.

Review/Summary

We just made some amazing pictures to represent what we learned today about transportation of our foods. You all are wonderful artists! Now, we are going to review what we learned today. When I say WRITE, take out a scrap piece of paper, and take five minutes to write about two things you learned today. These two things can be new things you learned that you never knew, two things you found interesting, two things you were excited to learn about, or two things you have questions about. I will know you are finished when you turn your papers over. If we have time left before the bell, we will share a few of your thoughts. What questions are there? WRITE!

Give students five minutes to complete this activity. When they are finished, if you have enough time in class, have a few students share. If you do not have enough time in class, collect the papers and read them to prepare for a short discussion about their comments as a review from this lesson at the start of the next lesson.

Application

Extended classroom Activity:

Invite a guest speaker who works for a food transportation service: a truck driver, train conductor, etc.

FFA Activity:

Community Service at the Local Food Bank: Members of the FFA chapter can participate in a community service activity at a local food bank unloading or loading boxes of food. Since the food has traveled to get there or will be traveling to other locations, students will not only be learning about ways the food banks distribute food, but they will be contributing their time to a very important cause.

SAE Activity:

Career Explorer: Research different employers of food transportation to determine salary, type of product being transported, where the product is transported, how long the transportation process takes, and any other interesting information about the company. Students can present their findings to the class. It is recommended that a rubric be developed to ASSESS this project.

Evaluation

MS.FS.1.3.ASSESS.A

MS.FS.1.3.ASSESS.B

Answers to Evaluation

1. D
2. A
3. C
4. Any of the following are correct: planes, trains, ships, boats, trucks, automobiles
5. A



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- B. The global change of society and agriculture: people learned how to farm and transportation evolved.
 - 1. Once people learned how to farm, they were able to produce enough food to spread and share across the land, and this allowed people to settle in one location rather than having to move to find food.
 - 2. **Civilization:** a developed society.
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Hunters & Gatherers





Civilization





Planes, Trains, Trucks & Boats





Name _____

Directions: Read each statement and decide which response is appropriate by circling the correct letter that corresponds with the selected response, or by writing the response in the space provided.

1. **Hunters and gatherers found their own food by hunting and gathering _____.**
 - A. edible plants
 - B. edible animals
 - C. water
 - D. all of the above
2. **Hunters and gatherers were constantly traveling to find food as the supply where they lived diminished.**
 - A. True
 - B. False
3. **_____ was the result of people who learned to farm and tame animals, where knowledge of agriculture allowed people to live in one place.**
 - A. City
 - B. Town
 - C. Civilization
 - D. Community
4. **List three different ways food is currently transported from the farm to the grocery store.**
 - A. _____
 - B. _____
 - C. _____
5. **A farmer's market is a local market where farmers bring their products to sell to local consumers in the community.**
 - A. True
 - B. False



Mural Rubric

Mural	0	5	Total
Content	Drawing does not include any key information from the lesson through key terms or the image.	Drawing includes key information from the lesson, either through the image or using a key term.	
Neat/Legible	Drawing is sloppy and difficult to understand.	Drawing is neat and easy to understand.	
Creativity	Drawing is not colorful and is a copy of the images presented in class.	Drawing is colorful and original; did not copy the images presented in class.	